Robert Wood Johnson Foundation

Published: October 1, 2006
Last Updated: July 11, 2009
Program Results Report
Grant ID: TMC

Addressing Tobacco in Health Care

An RWJF national program

SUMMARY

Addressing Tobacco in Managed Care, a national program of the Robert Wood Johnson Foundation (RWJF) (renamed *Addressing Tobacco in Health Care* in 2005), supported evaluations of replicable efforts by managed care organizations to integrate effective tobacco-cessation interventions into everyday clinical practice and the basic health care these organizations provide.

Authorized by the Board of Trustees in October 1996 for $6.76 million, *Addressing Tobacco in Managed Care* funded 25 projects from 1997 through 2005 to evaluate changes in organizational/institutional policies and practices aimed at reducing rates of tobacco use and the harm caused by tobacco use among managed care subscribers. A collaboration among managed care organizations and academic researchers carried out each project.

Research Program Assessment Findings

The Lewin Group conducted an assessment of the impact of the *Addressing Tobacco in Managed Care* research program in 2003:

- *Addressing Tobacco in Managed Care* increased managed care organizations' awareness of the need for tobacco screening and cessation services.
- The program was instrumental in developing a research base and a cadre of researchers examining tobacco-cessation interventions and the institutional changes needed to promote them.
- *Addressing Tobacco in Managed Care* influenced changes within health systems and helped to "normalize" support for smoking cessation within health systems.
- The program produced high-quality, useful research findings.
- With its focus on "real-world" studies, *Addressing Tobacco in Managed Care* identified replicable, cost-effective, high-impact changes in health care systems relevant to tobacco cessation, as well as challenges and barriers to making those changes.

- The findings from *Addressing Tobacco in Managed Care* have applicability for health behaviors and conditions beyond tobacco use.
- The national research program office fostered partnerships and collaboration between tobacco researchers and managed care plans.

Key Research Findings

Among the findings reported by the researchers who received grants under the program were:

- By capitalizing on the unique strengths of managed care organizations, feasible and replicable improvements in tobacco-dependence treatment delivery are achievable.
- Systems innovations can increase the provision of evidence-based treatment to underserved and socioeconomically disadvantaged populations.
- Reaching out to dental practices can foster tobacco user intervention.
- Patient satisfaction is improved by providing tobacco-dependence treatments.
- Electronic medical records are a promising means of documenting and facilitating the identification of smokers and the delivery of smoking-cessation interventions.
- No single strategy or systems change will ensure that all tobacco users receive evidence-based care.

Program Management

A national research program office, housed at the University of Wisconsin at Madison, and a national technical assistance office, housed at America's Health Insurance Plans in Washington, oversaw the program and provided technical assistance to the projects.

Afterward: Expanding the Research Network

In late 2005, RWJF awarded a two-year grant of $400,000 (ID# 048283) to the national program office to continue to support the existing network of tobacco-control researchers examining tobacco-control strategies and their partners, to provide them with technical assistance and to disseminate information and tools for implementing changes. The Foundation renamed the program *Addressing Tobacco in Health Care* in 2006 to attract a broader array of health services and tobacco control researchers to the new networking activities and extend the program's outreach to a variety of health care systems and insurers.

THE PROBLEM

Smoking is a priority public health problem with longevity: A decade ago, tobacco use was the nation's leading cause of preventable disease and premature death, and it remains so today, according to C. Tracy Orleans, Ph.D., RWJF distinguished fellow, senior program officer and senior scientist.

Although the health hazards of tobacco use are well known and widely publicized, the federal Centers for Disease Control and Prevention (CDC) estimates that approximately 21 percent of adults in the United States continue to smoke. More than 30 percent of high school seniors report that they use tobacco regularly. Every day more than 3,000 youth try their first cigarette, and more than a third of those will become regular, daily smokers, says Orleans.

Tobacco's human and financial toll is staggering. Each year, the CDC estimates that more than 440,000 people die prematurely because of tobacco use. More than 6 million of the nation's youth under the age of 18 who are alive today will die from smoking-related causes according to the Campaign for Tobacco-Free Kids. The campaign also estimates that smoking alone kills more people than alcohol, AIDS, drug abuse, car accidents, murders and suicides combined.

In addition, smoking adds billions to the nation's health care costs. Jeffrey E. Harris, M.D., Ph.D., an economist at M.I.T, testified before the Committee of Ways and means of the U.S. House of Representatives in November 1993: "I estimate that cigarette smoking accounts for 8 percent of all health-care spending in the United States."

According to economists at the University of California, San Francisco and the University of California at Berkeley, smokers and other tobacco users added $72.7 billion annually to the U.S. health care bill in 1998—a figure that certainly has increased annually as health care costs have increased.

According to the CDC, for each of the approximately 22 billion packs sold in the U.S. in 1999, $3.45 was spent on medical care attributable to smoking, and $3.73 in productivity losses were incurred, for a total cost of $7.18 per pack (*Morbidity and Mortality Weekly Report*, April 12, 2002, 51(14); 300–303).

Smoking-Cessation Treatment

Since the mid-1980s, researchers have developed a wealth of medications and behavioral interventions that can effectively treat nicotine addiction. In the mid-1990s, providers, public health professionals, health care leaders and policy-makers alike viewed the health care delivery setting as fertile ground for tobacco-cessation efforts because more than 70 percent of smokers visited a physician each year.

Unfortunately, only about half of those smokers reported that they received tobacco-cessation counseling, and even fewer said that they received any kind of tobacco-dependence treatment.

Several obstacles stood in the way of incorporating tobacco interventions into the routine provision of health care:

- Health insurance plans provided limited coverage for treatment.
- Although there was already a 20-year base of evidence on what did and did not work, there were no authoritative clinical practice guidelines for smoking cessation prior to 1996 and, in addition, no guidelines for health care system changes needed to boost delivery of proven clinical interventions.
- The health care delivery system did not have any proven, effective processes and tools to integrate tobacco prevention and cessation into routine health care.
- There were no performance measures for health plans that focused specifically on their smoking prevention and cessation efforts.

The health care delivery system and health insurance plans were responding to the public health crisis of tobacco use with an after-the-fact stance. For example, every state Medicaid program covered expensive, intensive medical care to treat people with lung cancer, but in the mid-1990s only 24 state Medicaid programs covered treatment to help smokers quit.

RWJF STRATEGY FOR ADDRESSING THE PROBLEM: CARPE DIEM

RWJF's commitment to smoking prevention and cessation dates back to the early 1990s and the beginning of the tenure of Steven Schroeder, M.D., as RWJF's third president. As a practicing physician, he had witnessed smoking's heavy toll firsthand and believed that RWJF could not fulfill its mission of improving the health of all Americans without addressing tobacco use.

Under his direction, in 1991, the Foundation adopted its current goal of reducing the harm caused by tobacco, alcohol and illicit drugs.

Early funding targeted youth, primarily to prevent them from ever beginning to smoke. Over the past 15 years, RWJF has invested in both tobacco prevention and treatment.

RWJF made its first substantial investment in tobacco control in 1992 with the *Tobacco Policy Research and Evaluation Program.* This $5-million national program supported research to help policy-makers adopt policies to reduce tobacco use, especially among children and youth.

With this program, RWJF hoped to bring fresh insights to addressing the nation's largest preventable health risk. (For more information, see Program Results on the *Tobacco Policy Research and Evaluation Program;* its projects are described in separate reports linked to its Project List.)

In 1993, RWJF launched *SmokeLess States®: Statewide Tobacco and Control Initiatives,* a national program that supported statewide efforts to reduce tobacco use, particularly among children and youth.

The program lasted 11 years and awarded $88 million in grants to statewide coalitions working in partnership with community groups to develop and implement comprehensive tobacco-control programs, including education, treatment and policy initiatives. (For more information, see Program Results on the *SmokeLess States Program;* a selection of its projects is described in separate reports linked to its Project List.)

A Confluence of Events

By the middle of the decade, RWJF staff recognized a set of circumstances—what Orleans calls "an extraordinary confluence of events in the health care system and tobacco control"—that provided an opportunity to address the huge gap between what was known about how to treat nicotine addiction and what was actually being done. They included:

- **The emergence of managed care as the nation's predominant health care delivery system.** By the mid-1990s, managed care—with its dual goals of improving health and reducing health care costs—was a real presence in health care delivery. With built-in panels of physicians and captive patient populations, centralized, state-of-the-art information systems, and economic incentives to keep patients healthy, managed care organizations offered a promising venue for tobacco intervention.
- **The development and promotion of HEDIS tobacco measures and clinical practice guidelines on treating tobacco dependence that grew out of them.** In 1996, the National Committee for Quality Assurance (NCQA), an accrediting organization for managed care plans, issued a "Call for Measures" inviting public participation in revising its Health Plan Employer Data and Information Set (HEDIS) to include tobacco use prevention and medical interventions to help smokers quit.

  (HEDIS is a set of standardized performance measures designed to ensure that purchasers and consumers have the information they need to reliably compare the performance and quality of managed health care plans.) As a result, a survey measure of smoking prevalence and intervention, which highlighted medical advice to quit smoking, was included in a modified form in HEDIS 3.0.

  Also, in April 1996, the federal Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality or AHRQ) issued the first evidence-

based *Clinical Practice Guideline* for smoking cessation, lending authority and urgency to addressing tobacco dependence.

The guideline recommended multiple behavioral and pharmacological interventions proven to double or triple the success rates of smokers quitting on their own, as well as a less-than-five-minute intervention that physicians, nurses and other providers could deliver during a routine primary care visit.

In 2000, the U.S. Public Health Service issued an updated guideline, which recommended a structure for this brief intervention. This structure is known as the Five A's:

— ASK: Ask every patient about smoking status at every visit.

— ADVISE: Provide clear, strong and personalized advice for the patient to stop smoking.

— ASSESS: Assess the willingness of the patient to make a quit attempt at this time.

— ASSIST: Provide evidence-based cessation counseling and medications (e.g., nicotine replacement therapies and bupropion).

— ARRANGE: Follow-up to assess progress with the quit plan.

Both guidelines noted the need for a change in the health care delivery system that would make the delivery of these interventions a part of routine care for all tobacco users and the failure to provide it a sign of substandard care.

RWJF help to fund development of the HEDIS measures, the guideline, its dissemination and its revision (see Appendix 1 for details).

- **The adoption of tobacco intervention practices as standard health plan quality performance measures.** Both the National Committee for Quality Assurance (NCQA) and the Foundation for Accountability, which develop performance measures for health plans, added measures to gauge whether providers were advising their patients to quit smoking. RWJF funded a seminal effort to develop the original HEDIS performance measures that have been used by health plans and by external constituencies (purchasers, consumers, regulators, accrediting organizations and policy-makers) to evaluate the quality of care provided for tobacco use and dependence through a $50,000 grant to the Center for the Advancement of Health (see Program Results on ID# 028757).

  > *In 1997, the HEDIS performance measures included a measure for "the percentage of adult current smokers who received advice to quit smoking from a health plan provider during the previous year."*

  The new smoking cessation-related measures were expected to stimulate health plans to encourage increased tobacco intervention. RWJF funded another a small study in 1999 (see Program Results on ID# 037080) exploring how to strengthen the HEDIS

tobacco measure by asking patients not just whether they had received advice (the first two A's in the Five A's approach) but also whether they had received any assistance (the fourth A) in the form of counseling or medication. NCQA formally adopted this new measure—that is, asking smokers whether their health plans offered them tobacco-cessation counseling or medication—in the spring of 2002.

- **The presence of allies ready and willing to address nicotine dependence treatment.** The American Association of Health Plans, the Agency for Health Care Policy and Research, the Centers for Disease Control and Prevention, the HMO Group, the National Cancer Institute, and other prominent health care organizations were eager to tackle smoking cessation—and willing to partner with one another and RWJF.

"The Foundation saw a wonderful opportunity to embed evidence-based tobacco treatment in the routine delivery of health care to reach as many smokers as possible," Orleans explains.

PROGRAM DESIGN

In October 1996, the RWJF Board of Trustees authorized up to $6.76 million for an eight-year, two-part program to integrate effective tobacco-cessation intervention into everyday clinical practice—and the basic health care provided—by managed care organizations.

The *Addressing Tobacco in Managed Care* research program funded a series of grants to evaluate changes in organizational/institutional policies and practices aimed at reducing rates of tobacco use and the harm caused by tobacco use among managed care subscribers.

The purpose of the *Addressing Tobacco in Managed Care* research program was not to evaluate the efficacy of tobacco-cessation interventions per se, but rather to evaluate the effectiveness of replicable organizational strategies that lead providers, practices and health plans to adhere to the activities recommended in the Clinical Practice Guideline or other evidence-based cessation guidelines.

RWJF included with its first call for proposals for *Addressing Tobacco in Managed Care* a brochure issued by the Agency for Health Care Policy and Research, Smoking Cessation: A Systems Approach, that provided examples of systems-based changes that supported the guideline, including:

- Tobacco user identification systems.
- Provider education and resources to promote provider interventions.
- Clinical staff dedicated to smoking-cessation treatment.

- Insurance coverage for smoking-cessation treatment and FDA-approved medications.
- Hospital policies that support inpatient tobacco-dependence services.
- Reimbursement for providers for the delivery of effective tobacco-dependence treatments.

The design of the program was unusual: RWJF funded the evaluation of the changes made by managed care organizations to reduce tobacco use, but did not pay for the actual changes themselves. The participating managed care organizations were to bear the latter cost. (RWJF had taken a similar tack in a much earlier program, *Chronic Care Initiatives in HMOs*, where it funded HMOs to evaluate their efforts to improve care for enrollees with chronic conditions.)

Addressing Tobacco in Managed Care also included support for a National Technical Assistance Office based at and directed by the American Association of Health Plans, the managed care industry's leadership group. During the program, it expanded its role and renamed itself America's Health Insurance Plans (AHIP). See Program Implementation for more information.

A Collaboration Between Managed Care Organizations and Researchers

The heart of the *Addressing Tobacco in Managed Care* research program was a collaboration between the managed care and research communities that made evaluation of the changes possible. Managed care organizations, group practices and researchers housed in academic or research settings were eligible to apply. Researchers were required to demonstrate that they had a close, collaborative relationship with at least one managed care organization that was highly committed to the proposed research. Managed care organizations and group practices were required to provide evidence of:

- Access to a delivery system that included primary care providers and quality-improvement structures such as guidelines, provider education and data collection and analysis.
- An explicit commitment to preventive health care through written organizational policies, committee structures and coverage policies.

RWJF was most interested in funding research designs that examined the relative or incremental effects of selected systems changes. Funded evaluation projects included assessments of the costs of the intervention efforts incurred by payers, providers and patients, using standardized cost measures in order to allow comparisons across sites and projects.

The program offered two levels of support:

- A 12- to 18-month planning grant, averaging $45,000, to support pilot or demonstration projects that resulted in systems changes to support tobacco cessation, clinician adherence to the systems changes, or the development of an effective working relationship between the managed care organization and researchers.
- A two- to three-year full evaluation grant, averaging $500,000, to fund an evaluation of the impact of systems changes implemented and funded by managed care organizations on a variety of outcomes, including:
  - Rates of smoker identification.
  - Rates of clinician intervention.
  - Staff acceptance of the systems changes.
  - Rates of quit attempts in the managed care population.
  - Smoking cessation outcomes.

RWJF program staff viewed the planning grants as support for "laying the groundwork" for strong evaluation grants and they were considered especially appropriate for managed care organizations without significant systems research experience.

RWJF program staff scheduled two rounds of funding, in 1998 and 2000, in part to allow recipients of planning grants in the first phase to apply for a full evaluation grant in the second phase.

PROGRAM IMPLEMENTATION

Typically, RWJF establishes a national program office to manage the program and provide technical assistance to the project sites. In the case of *Addressing Tobacco in Managed Care*, however, the project sites involved partnerships between researchers and managed care organizations—two actors with very different needs and interests.

Accordingly, RWJF divided the program management/technical assistance functions, placing the national program office at a research university and funding a separate national technical assistance office at AHIP, the managed care industry's leadership group, located in Washington. It represents 1,300 member companies that provide health benefits to more than 200 million Americans.

The national program office brought expertise in clinical practice, clinical guideline development and tobacco research, while the national technical assistance office offered a way to communicate with credibility to a large managed care audience.

Research Program Management

RWJF housed the national program office at the University of Wisconsin School of Medicine and Public Health, Center for Tobacco Research and Intervention in Madison, Wis. Michael Fiore, M.D., M.P.H., based in Madison, and Susan Curry, Ph.D., initially at the Center for Health Studies, Group Health Cooperative in Seattle, and since 2008 dean and professor at the University of Iowa College of Public Health, co-directed the program.

Fiore brought to the program a background and expertise in clinical practice and clinical guideline development (he chaired the panels that developed the 1996 AHCPR and 2000 Public Health Service clinical practice guidelines for smoking cessation), while Curry brought a wealth of experience in conducting and directing tobacco-cessation research, health care systems change research, and research on behavioral interventions in managed care.

The first deputy director of *Addressing Tobacco in Managed Care* was Marguerite Burns, M.A. She was succeeded by Paula Keller, M.P.H., in May 2001.

A 12-member national advisory committee assisted the national program office with site visits, grantee selection and monitoring of the research. See Appendix 2 for a list of national advisory committee members.

National Program Office Role

The national program office solicited two rounds of research grants for the program, fostered partnerships between researchers and managed care organizations, and developed a network of researchers interested in systemic changes to address treatment of tobacco use, with special emphasis on supporting new investigators in this field.

During the first round of funding in 1998–99, RWJF awarded 11 planning grants and four evaluation grants. In the second round of funding in 2000–01, the Foundation awarded five planning grants and five evaluation grants. (See Appendix 3 for a list of all the funded projects.)

All told, *Addressing Tobacco in Managed Care* supported 25 collaborations between managed care organizations and researchers. Some 39 health plans covering more than 10 million people participated in the program.

In addition to managing the site selection process, the national program office conducted site visits, held annual grantee meetings, provided technical assistance to researchers via phone, e-mail and a grantee listserv, and reviewed grantee instruments, protocols and other documents.

The national program office health economist, John Mullahy, Ph.D., a professor of population health science at the University of Wisconsin-Madison, helped grantees incorporate cost-effectiveness assessments in their projects.

Fiore and Curry, the two research program directors, also participated in a variety of federal and non-federal tobacco-cessation initiatives, including work with the Department of Defense, the Centers for Medicare & Medicaid Services, the United States Public Health Service and the CDC.

Technical Assistance Program Management

The national technical assistance office for the program resided at AHIP. According to C. Tracy Orleans, this office, co-funded by AHIP, "was organized to promote best practices through hands-on technical assistance, an online clearinghouse for practical tools and resource guides, training workshops and conferences, an awards program to recognize leadership, and regular surveys/assessments to monitor progress."

Barbara Lardy, M.P.H., directed the office at AHIP. The CDC and the Agency for Healthcare Research and Quality each provided $50,000 in additional funding to support the activities of the national technical assistance office.

National Technical Assistance Office Role

The national technical assistance office carried out a number of activities in support of the program, including:

- It created the Managed Care Achievements in Tobacco Control Awards Program in 1998 to recognize and honor the innovative and practical strategies, practices, programs and policies used by health plans to establish effective tobacco control and cessation interventions. From 1998 through 2003, the national technical assistance office presented 24 awards in six categories:
  - Adult tobacco-control initiatives.
  - Youth/adolescent tobacco-control initiatives.
  - Private/public partnerships in tobacco prevention.
  - Tobacco control in special populations.
  - Tobacco control in pregnancy continuum.
  - Policy implementation.

  Pharmaceutical company GlaxoSmithKline provided $50,000 to help support the awards program. See Appendix 3 for a list of award winners.

- It conducted four national surveys of health plans—in 1997, 2000, 2002 and 2003—to determine the extent to which plans had adopted evidence-based tobacco-control practices and policies. The 2003 survey found:
  - From 1997 to 2003, health plans demonstrated increasing use of evidence-based programs and clinical guidelines to address tobacco use.
  - Plans have shown substantial improvement in their ability to identify all or some of their members who smoke.
  - The proportion of plans providing full coverage for at least one guideline-based treatment rose from 75 percent in 1997 to 98 percent in 2002.
  - The number of health plans providing full coverage for any type of medication for tobacco cessation has tripled since 1997.
  - Some 91 percent of health plans reported addressing tobacco cessation with patients already participating in disease management programs, underscoring the importance of disease management as a vehicle for advancing tobacco-cessation efforts.

  See Appendix 4 for details on all the surveys and their key findings.
- In conjunction with the Center for Health Research at Kaiser Permanente Northwest, it developed a return-on-investment (ROI) calculator, which allows health insurance plans and employers to determine the potential costs and costs savings of tobacco-control initiatives. The calculator, which is available free online, allows health plans to input information specific to the populations they serve and then provides estimates of the number of participants, new quitters and program costs for interventions lasting one year.
- It served as a unique clearinghouse for practical tools and resources related to tobacco-cessation intervention in health plans.
- It sponsored annual meetings and conferences addressing tobacco in managed care.

Program Challenges

The research projects faced a variety of challenges—obtaining institutional review board approvals, getting the attention and support of busy clinicians and retention of subjects for follow-up surveys.

A separate set of challenges arose because the research was being conducted in managed care settings at a time of great change in the health care market and policy environment.

In one case, Columbia University's original managed care partner, Prudential Health Care, was purchased by another insurer, Aetna.

Other managed care partners faced financial pressures and market changes that affected their participation in the research.

Also, state budget cuts affected quit lines and other public tobacco-control programs whose existence was assumed when the research project commenced.

Resolving these unanticipated challenged necessitated extensive discussions between the staff working on projects and the national research program office to find workable solutions. Those solutions included seeking additional resources from the managed care organization, reallocation of grant budgets and grant period extensions.

In addition, the national research program office provided critical technical assistance to resolve research design and implementation problems and to assist grantees to develop publishable reports of their research.

Program Communications

The national program office, the national technical assistance office, and researchers at the project sites all contributed to efforts to disseminate the findings of the program to the wider health field. Those efforts took several forms, including articles, conferences, training sessions and guides.

Articles

As of June 2006, project researchers had published 30 papers highlighting their research, with two more papers in press and two under review. Eleven of these papers appeared in two peer-reviewed supplements to the journal Nicotine & Tobacco Research produced by the national research program office. National research program office staff also wrote or co-wrote more than 100 research journal articles during the 10-year program funding period. See the Bibliography for details.

Conferences

Both the national research program office and the national technical assistance office held end-of-program meetings:

- The national research program office held a conference, *Addressing Tobacco in Managed Care: Synthesizing Lessons Learned and Identifying Future Research Opportunities,* in May 2005, to examine the impact of the program. The conference, which was co-funded by RWJF, the CDC and the AHRQ, brought together 95 systems-change researchers, health plan representatives, policy-makers and funders.

  The conference featured panel discussions on three categories of systems-level strategies:

  — Provider education, reminder systems and feedback.

— Incentives and reimbursement.

— Use of technology.

Conference participants recommended further research to determine:

— The characteristics of optimal provider feedback (e.g., how often, in what form).

— The optimal size of financial incentives for providers.

— The correct mix of technologies to support providers.

The conference report is available online. For conference conclusions, see Appendix 5.

- The national technical assistance office held an invitation-only roundtable meeting, *Addressing Tobacco in Managed Care*: The Path Ahead, in September 2005, as well as seven other conferences. The roundtable and conferences brought together health plans, insurers, employers, researchers, clinicians, public health experts and policy-makers to explore the challenges of integrating tobacco-cessation initiatives throughout the health care continuum, current successes and potential partnerships.

  Participants identified three factors that will affect the diffusion of program results and findings.

  — The health insurance marketplace is moving to a model that expects cost savings and improved outcomes to result from greater consumer choice.

  — Good models that demonstrate a clear financial benefit from investing in tobacco-cessation strategies are not enough on their own to prompt health care plans to adopt those strategies.

  — Efforts to apply the lessons learned about successfully preventing and treating tobacco dependence to the prevention and treatment of obesity need to follow the same plan used for tobacco-cessation treatment.

A summary of the September 2005 roundtable is available online. See Appendix 6 for a fuller discussion of these factors.

A number of other organizations also supported the conferences, including the AHRQ ($50,000), Glaxo SmithKline ($71,400), and the National Cancer Institute ($115,000).

Training Sessions

The national technical assistance office provided training sessions for health plans on tobacco-cessation interventions at professional conferences, including:

- Healthy Babies, Healthy Mothers
- National Conference on Tobacco OR Health

- American Public Health Association Annual Meeting
- American Society of Addiction Medicine Physician Conference

The national research program office coordinated six panel presentations highlighting research from the program at national conferences and gave more than 70 presentations.

Guides

The national technical assistance office published:

- A toolkit for smoking cessation during pregnancy, which includes information on programs, brochures, videos and other resources. It is available online.
- A resource guide to assist health plans with developing the framework and objectives for tobacco-control programs. The CDC and the AHRQ reviewed the guide, which includes practical tools and case studies of successful programs. The resource guide is available online.

PROGRAM ASSESSMENT

In 2003, the Lewin Group, a health care policy research and management consulting firm located in Falls Church, Va., conducted an assessment of *Addressing Tobacco in Managed Care*. The objective of the assessment was threefold:

- To assess the accomplishments of the program.
- To provide recommendations for the duration of the program.
- To identify opportunities and future directions for evaluating systems-level tobacco interventions in the nation's health system.

From March to May 2003, the Lewin Group interviewed 44 people, including *Addressing Tobacco in Managed Care* grantees, national research program office staff, RWJF staff, national advisory committee members, representatives of federal agencies and managed care organization staff. For conclusions of this assessment, see Program Assessment Findings.

OVERALL PROGRAM FINDINGS

The national research program office reported the following overall research findings in an article, "Systems Change to Improve Health and Health Care: Lessons from *Addressing Tobacco in Managed Care*," which appeared in an April 2005 supplement to the peer-reviewed journal, *Nicotine & Tobacco Research:*

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

achievable. Evaluations of feasible, replicable innovations are essential to foster their diffusion throughout the health care delivery system.

- **Systems innovations can increase the provision of evidence-based treatment to underserved and socioeconomically disadvantaged populations.** In these populations, the smoking rates are the highest and the treatment rates are the lowest.
- **Reaching out to dental practices can foster cessation interventions with tobacco users.** About 50 percent of smokers visit a dentist each year. The deleterious effects of tobacco on teeth and gums may motivate patients to try to quit. Therefore, dentists are well positioned to help their patients stop smoking.
- **Patient satisfaction is improved by providing tobacco dependence treatments.** Although physicians continue to express concern that addressing tobacco use with their patients will result in dissatisfied patients, research reinforces the fact that patients expect their physicians to address tobacco use as a normal part of health care delivery.
- **Electronic medical records are a promising means of documenting and facilitating the delivery of smoking-cessation interventions.** The electronic medical record gives providers, researchers and delivery systems a powerful tool to prompt, support and track interventions by physicians and other members of the practice team.
- **No single strategy or systems change will ensure that all tobacco users receive evidence-based care.** Multi-faceted approaches are needed to improve health care delivery of tobacco-cessation interventions. In addition, ongoing, rigorous research that involves diverse practice sites is needed to continue to build the evidence base for smoking cessation.

The national research program office reported the following overall research findings to RWJF in an October 2005 report:

- **Feedback to health care providers on their interactions with tobacco-using patients holds promise for encouraging this kind of clinical intervention, but the feedback needs to be sustained over time.** Once feedback to providers is discontinued, the rates of tobacco-cessation interventions provided by clinicians tend to decline.
- **Systems-level strategies can increase documentation and delivery of the Five A's:**
  - ASK: Ask every patient about smoking status at every visit.
  - ADVISE: Provide clear, strong and personalized advice for the patient to stop smoking.
  - ASSESS: Assess the willingness of the patient to make a quit attempt at this time.

- ASSIST: Provide evidence-based cessation counseling and medications (e.g., nicotine replacement therapies and bupropion).
- ARRANGE: Follow-up to assess progress with the quit plan.

Documentation is important so that providers receive accurate performance feedback and managed care organizations can show their compliance with HEDIS and Joint Commission on Accreditation of Healthcare Organizations (JCAHO) measures.

Systems-level strategies include changes to the electronic medical record, changes to the encounter and billing forms, and the introduction of financial incentives to encourage documentation.

- **Proactive telephone outreach to assist smokers in their attempts to quit can result in increased enrollment in telephone counseling services.** Compared to a mailed letter or a postcard, patients filling a prescription for medication to help them quit smoking were more likely to enroll in quit lines if they were contacted by telephone. Although telephone outreach is more expensive than outreach by mail, it appears to be more effective.
- **Academic detailing can be a catalyst for changes in providers' clinical practice that improve tobacco interventions.** Academic detailing is an educational process: typically, a trained clinician or health educator visits a clinician's office to provide an educational intervention on a specific topic, such as smoking cessation. Detailing also can be provided through electronic means, such as e-mails or CD-ROMs. Dentists and physicians are accepting of academic detailing—both in-person and electronic—and make changes in their practice based on this education.
- **Providing insurance coverage for tobacco-cessation services is not enough to increase use of these services by smokers; patient awareness of this coverage also needs to be increased.** Increasing patients' awareness that tobacco cessation is a covered service can increase use of services and quit attempts. However, further research is needed to evaluate whether efforts to increase patient awareness of benefits can ultimately increase quit rates.
- **Patient satisfaction with overall health care increases when tobacco use is addressed during clinic visits.** This finding counters the concern expressed by some health care providers that routinely addressing tobacco use may alienate patients.

KEY RESEARCH PROJECT FINDINGS

Addressing Tobacco in Managed Care funded 16 planning and nine evaluation projects from 1997 through 2005. For a complete list of funded projects, see the Project List. Highlights of nine projects are included in this section.

1. Linking Peer and Neighborhood-Based Smoking Cessation with Clinic-Based Services for Low-Income African Americans (ID# 036026), Washington University (Saint Louis, Mo.)

Two federally qualified health centers in the St. Louis area that served a predominantly low-income, African-American population implemented multiple changes to promote smoking cessation among patients, including:

- Identification of all smoking patients.
- Documentation of smoking status and readiness to quit on the encounter form filled out during clinic visits.
- Training of providers in the Five A's:
  - ASK: Ask every patient about smoking status at every visit.
  - ADVISE: Provide clear, strong and personalized advice for the patient to stop smoking.
  - ASSESS: Assess the willingness of the patient to make a quit attempt at this time.
  - ASSIST: Provide evidence-based cessation counseling and medications (e.g., nicotine replacement therapies and bupropion).
  - ARRANGE: Follow-up to assess progress with the quit plan.
- Regular feedback on providers' documentation of patients' tobacco use.
- Development of neighborhood-based resources to support tobacco-use cessation (e.g., support groups, smoking-cessation classes).

Smoking was treated as a "vital sign" for all patients; physicians were expected to determine whether or not patients smoked—and all smokers were given brief, appropriate information and advice on quitting.

A group of researchers from Washington University School of Medicine evaluated the impact of these system changes on smoking cessation by auditing the documentation rate of smoking status and readiness to quit on encounter forms completed by physicians and through exit interviews with patients.

They compared the two clinics conducting the intervention (experimental clinics) with two other clinics in the same health system that served a similar patient population.

Findings

- **Documentation rates of patient smoking status on encounter forms at the experimental clinics increased from 2 percent to more than 94 percent during the two-year study period.** In addition, documentation remained at more than 90

percent in the year after the study. The researchers did not report the documentation rates of the control clinics.

- **Patients using the experimental clinics reported increases in the availability of smoking-cessation services and neighborhood resources that were similar to or greater than those reported by patients in the comparison clinics.**

Publications

- Fisher E, Musick J, Scott C, Miller JP, Gram R, Richardson V, Clark J and Pachalla V. "Improving Clinic- and Neighborhood-Based Smoking Cessation Services Within Federally Qualified Health Centers Serving Low-Income, Minority Neighborhoods." *Nicotine & Tobacco Research,* 7(S1): S45–S56, 2005. Abstract available online.

2. Developing Practice Feedback to Improve Tobacco Cessation (ID# 036387), Maine Medical Assessment Foundation (Skowhegan, Maine)

To enhance the routine provision of tobacco-dependence interventions, four primary care practices in Maine provided office-based educational outreach, known as academic detailing, and feedback to physicians on their documentation and treatment of smoking. The academic detailing included two in-office educational sessions that covered:

- Tobacco dependence and treatment.
- Office- and provider-specific data on documentation of patient smoking and claims for tobacco-dependence treatment.
- The 1996 Agency for Health Care Policy and Research (now the Agency for Healthcare Research and Quality) smoking-cessation guideline and how to implement it.
- Challenges to changing office systems.

Researchers from the Maine Medical Assessment Foundation surveyed the physicians in the four practices to determine if the academic detailing and provider-specific performance feedback (the combination is called academic profiling) improved their knowledge about tobacco use and treatment and their ability to identify, document and treat patients who smoked.

Findings

- **Among physicians, 68 percent said that the academic detailing sessions increased their knowledge about tobacco use and treatment.**
- **Some 66 percent felt it increased their routine identification of patients using tobacco.**

- **Some 66 percent said the sessions had increased the likelihood that patients who wished to quit smoking would be offered treatment.**
- **Some 44 percent of physicians felt that feedback on their tobacco-intervention performance would improve their ability to intervene with tobacco users.**

Conclusions

The researchers concluded that academic profiling can be useful if it is cost effective, is valued by providers and ultimately improves practice performance related to smoking cessation.

Publications

- Swartz SH, Cowan TM, DePue J and Goldstein MG. "Academic Profiling of Tobacco-Related Performance Measures in Primary Care." *Nicotine & Tobacco Research*, 4(S1): S39–S45, 2002.

3. Feasibility of Dental Office-Based Tobacco-Cessation Interventions (ID# 036025 and 044167), Columbia University (New York)

Researchers at the Columbia University School of Dental and Oral Surgery worked with a dental health management organization run by Aetna on two projects examining ways to promote tobacco-cessation counseling in dental offices.

The first project (ID# 036025) tested the effects of academic detailing—face-to-face educational outreach to dentists and their staffs. Researchers randomly assigned 88 dental offices either to a group that received academic detailing (the intervention group) or to a control group.

The academic detailing consisted of a 90-minute presentation on tobacco-cessation interventions, and three short (less than 10 minutes) follow-up visits. For the intervention group, the managed care plan also mailed literature to patients identified as smokers and provided additional payments to dentists for providing cessation counseling.

Findings

Researchers surveyed participating dentists and examined the detailers' logs, and found that:

- **Dentists and their staffs were initially resistant to academic detailing, but resistance diminished after follow-up visits.** Major concerns included patient confidentiality issues, increased paperwork, possible negative reactions to cessation counseling by patients and a perception that few patients use tobacco.

- **It is feasible to promote tobacco-use cessation counseling in dental offices, but barriers must be overcome.** These barriers include the cost of academic detailing and initial resistance of dentists and their staff.

Publications

The researchers published two articles:

- Albert D, Ahluwalia KP, Ward A and Sadowsky D. "The Use of 'Academic Detailing' to Promote Tobacco-Use Cessation Counseling in Dental Offices." *Journal of the American Dental Association*, 135(12): 1700–1706, 2004. Available online.
- Albert D, Ward A, Ahluwalia K and Sadowsky D. "*Addressing Tobacco in Managed Care*: A Survey of Dentists' Knowledge, Attitudes, and Behavior." *American Journal of Public Health*, 92(6): 997–1001, 2002. Available online.

In a follow-up study (ID# 044167), the researchers tested a different set of interventions:

- Mailing a continuing education CD-ROM on tobacco cessation to dentists. (The CD-ROM was adapted for Aetna's use by Deschutes Research, which had originally developed it under a National Institutes of Health grant.)
- Providing academic detailing via e-mail.
- Providing a $10 payment to dentists for each patient counseled.

The researchers recruited 149 dentists, divided into intervention (79) and control (70) groups. The researchers also conducted a baseline survey of 184 dental offices in 29 states to assess their knowledge, attitudes and practices regarding tobacco cessations.

Findings

Findings from the baseline survey, reported in an article in the April 2005 supplemental issue of *Nicotine & Tobacco Research* included:

- **Some 27 percent of offices reported that they conducted no tobacco-cessation activities.** The most frequently reported barriers to conducting tobacco-cessation activities included patient resistance, lack of time, lack of reimbursement, limited knowledge of referral services and concerns about effectiveness.
- **Of those who did conduct any cessation activities, only one-third said they asked their patients about smoking frequently (more than 40 percent of the time).** About half said that helping their patients quit smoking was not part of their practice.
- **Less than 50 percent of dentists reported feeling "confident" in their ability to help patients stop using tobacco.** Less than 30 percent reported that they felt "successful" in helping their patients stop their tobacco use.

The researchers reported these findings to RWJF:

- **Dentists who received the CD-ROM, detailing and extra reimbursement were significantly more likely to ask and advise their patients about smoking at the end of the study than they had been at baseline.**
- **Compared to dentists in the control group, dentists receiving these interventions were significantly more likely to:**
  - Provide written materials on cessation to their patients.
  - Encourage their patients to set a quit date.
  - Provide information on pharmacological aids—nicotine patch or gum.
- **Patients of dentists in the intervention group made significantly more quit attempts than patients of the control group practices.** There was also a significant reduction in the number of cigarettes smoked per week among patients of intervention group practices, compared to patients in the control group practices.

Publications

- Albert DA, Severson H, Gordon J, Ward A, Andrews J and Sadowsky D. "Tobacco Attitudes, Practices, and Behaviors: A Survey of Dentists Participating in Managed Care." *Nicotine & Tobacco Research*, 7(S1): S9–S18, 2005. Available online.

The continuing education CD-ROM is being disseminated to all dentists who participate in the Aetna Dental managed care system.

Additional Funding

The researchers received additional funding from the New York State/Columbia University Center for Advanced Technology to conduct an evaluation of the effectiveness of the CD-ROM in encouraging dentists to conduct smoking-cessation activities.

4. Evaluation of a Smoking-Cessation Pharmacy Benefit (ID# 036022), HealthPartners Research Foundation (Minneapolis)

Two large health plans in Minnesota offered a new smoking-cessation pharmacy benefit that provided coverage for medication aids to quit smoking.

Because some employers that provided health insurance coverage to employees opted to purchase the new benefit and others did not, there was a "real-world" opportunity to examine the impact of the new coverage.

Researchers from HealthPartners Research Foundation in Minnesota surveyed 2,327 health plan members (1,560 smokers whose insurance included the new benefit and 767

smokers whose insurance did not) when the benefit was first offered and 12 months later. They asked them:

- Whether they knew about the benefit.
- Had made any quit attempts.
- Had used various aids to quit smoking (e.g., nicotine gum) and whether those aids were covered by their insurance.
- Had been able to remain a non-smoker.
- Had interacted with their physician over the 12-month study period.

Findings

The questionnaire results showed that:

- **At the 12-month follow-up, 30 percent of smokers with the benefit reported knowing that their health insurance covered medicines for smoking cessation.** Some 6 percent of those who did not have the benefit thought they did.
- **Smokers who had the benefit were no more likely than those who did not to use medicines for smoking cessation.**
- **The new benefit also produced no changes in rates of attempting to quit smoking or actually quitting.**

Conclusions

In an article in the November/December 2002 issue of *Health Affairs*, the researchers noted that this study provides "a sobering caution to the suggestion that merely providing coverage for smoking-cessation pharmacotherapy will have a substantial effect on rates of smoking cessation." The researchers suggested further research to examine whether greater efforts to make smokers aware of the coverage and adding coverage of non-pharmaceutical treatments such as behavioral therapy would be beneficial.

Publications

- Boyle RG, Solberg LI, Magnan S, Davidson G and Alesci NL. "Does Insurance Coverage for Drug Therapy Affect Smoking Cessation? A study in Minnesota Found That Drug Coverage Alone Is Not Enough." *Health Affairs,* 21(6): 161–168, 2002. Available online.
- Solberg LI, Boyle RG, Davidson G, Magnan SJ and Carlson CL. "Patient Satisfaction and Discussion of Smoking Cessation During Clinical Visits." *Mayo Clinic Proceedings,* 76(2): 138–143, 2001.

- Solberg LI, Davidson G, Alesci NL, Boyle RG and Magnan S. "Physician Smoking-Cessation Actions: Are They Dependent on Insurance Coverage or on Patients?" *American Journal of Preventive Medicine*, 23(3): 160–165, 2002. Abstract available online.

5. An Integrated Computer-Based System for Treating Tobacco Dependence in a Medically-Indigent, Managed Care Population (ID# 044166), Indiana University School of Nursing (Indianapolis)

Wishard Health Services in Indiana developed and implemented an interactive voice-response system that called all patients who were enrolled in its Wishard Advantage health plan and who were scheduled for primary care visits at two affiliated community health centers. The interactive voice-response system screened the patients for tobacco use and readiness to quit.

Wishard Advantage is a managed care program for the uninsured in the Indianapolis metropolitan area.

Wishard Health Services transferred the information patients provided to its medical record system to generate reminders for primary care physicians to provide appropriate smoking-cessation interventions.

Researchers from Indiana University School of Nursing surveyed patients and conducted exit interviews with smokers to assess whether their provider discussed smoking cessation with them and/or advised them to quit.

Findings

- **Of the 2,039 patients who were called by the interactive voice-response system, 1,086 (53 percent) completed the set of questions about tobacco use.** Some 39 percent of those were identified as current smokers.
- **In exit interviews with 120 smokers, 48 percent reported that they discussed smoking cessation with their health care provider.**
- **More than 70 percent of the patients who used the interactive voice-response system reported that it was "a good way for patients to give information about their health to doctors."**

Conclusions

The researchers concluded that capturing patient data using automated voice response is a "potentially useful strategy for tobacco-use screening in primary care."

Publications

- McDaniel AM, Benson PL, Roesener GH and Martindale J. "An Integrated Computer-Based System to Support Nicotine Dependence Treatment in Primary Care." *Nicotine & Tobacco Research*, 7(S1): S57–S66, 2005. Available online.

6. Tobacco Cessation Using a Primary Care Electronic Medical Record (ID# 044151), Providence Health Systems, Oregon Region (Portland, Ore.)

Providence Health System in Oregon added to its electronic medical record a structured system for providers to document use of the Five A's and patient tobacco-use status. All 19 Providence clinics that are part of its HMO use this common electronic medical record. The Five A's are:

- ASK: Ask every patient about smoking status at every visit.
- ADVISE: Provide clear, strong and personalized advice for the patient to stop smoking.
- ASSESS: Assess the willingness of the patient to make a quit attempt at this time.
- ASSIST: Provide evidence-based cessation counseling and medications (e.g., nicotine replacement therapies and bupropion).
- ARRANGE: Follow-up to assess progress with the quit plan.

Clinic providers participated in a 30-minute educational session that included information on the Five A's, medications that aid smoking cessation and the Oregon Tobacco Quit Line (a toll-free hotline that provides counseling, support and access to resources for the state's smokers).

Providers could refer patients to the quit line directly or provide patients with the information and have them initiate the contact. An intervention group of physicians received feedback on their performance, which included rates of delivering the Five A's and the number of referrals to the quit line.

Researchers from Providence Health System assessed both Five A's documentation and quit line referrals for the intervention group physicians and a control group of physicians.

Findings

- **Of the 15,662 smokers identified in 19 primary care clinics, 745 patients (4.8 percent) were referred to the Oregon Tobacco Quit Line during the study period.**

- **The program cost in the first year was $15 to $22 per patient connected to the quit line. After the first year, the cost decreased to $4 to $6 per quit-line connection.**
- **Providing feedback to physicians significantly increased their documentation of the Five A's in the medical record:**
  - The Asked rate increased from 88.1 to 94.5 percent.
  - The Advised rate increased from 52.7 to 71.6 percent.
  - The Assessed rate increased from 40.1 to 65.5 percent.
  - The Assisted rate increased from 10.5 to 20.1 percent.
- **Feedback also increased physicians' referrals to the quit line and connection of patients with quit line services.**

Publications

- Bentz CJ, Bayley KB, Bonin KE, Fleming L, Hollis JF and McAfee T. "The Feasibility of Connecting Physician Offices to a State-Level Tobacco Quit Line." *American Journal of Preventive Medicine*, 30(1): 31–37, 2006. Abstract available online.

7. Maximizing Provider Utilization of a New State Tobacco Dependence Treatment Reimbursement Program (ID# 044417), General Hospital Corporation-Massachusetts General Hospital (Boston)

In July 2000, Massachusetts began reimbursing providers for tobacco-cessation treatment for any state resident. Massachusetts General Hospital, and Brigham and Women's Hospital (both teaching hospitals in Boston) examined two ways to increase the use of these services among 114 participating primary care physicians in eight affiliated practices:

- Comprehensive feedback to providers on their rate of referral to tobacco-treatment services and the outcomes of patients referred to these services.
- Financial incentives for referring patients to treatment. Two different incentives were tested: (1) $5 for every form that documented completion of the Five A's; and (2) a performance-based salary incentive of approximately $425 if tobacco counseling was documented for 25 percent of the provider's patients who were current smokers.

Physicians were randomly assigned to groups that received or did not receive the feedback. Physicians affiliated with one hospital received financial incentives, while those with the other hospital did not.

Researchers from both hospitals examined the documentation of tobacco counseling and conducted patient surveys examining the relationship between smokers' satisfaction with their health care and their reporting of tobacco intervention made at a primary care visit.

Findings

- **Feedback to physicians increased their documentation of the Five A's.**
- **The incentive of $5 per documented form increased documentation by physicians, but the performance-based salary incentive did not.**
- **Smokers who reported receiving a smoking-cessation intervention, even those who were not ready to quit, were more satisfied with their health care overall than those who did not receive an intervention.** This indicates that interventions do not alienate patients who are not ready to quit.
- **The three major means of assessing providers' performance—patient surveys, provider surveys and reviews of electronic medical records—yield inconsistent results.** And electronic reviews do not automatically improve providers' documentation of their interventions.

Publications

- Conroy MB, Majchrzak NE, Regan S, Silverman CB, Schneider LI and Rigotti NA. "The Association Between Patient-Reported Receipt of Tobacco Intervention at a Primary Care Visit and Smokers' Satisfaction With Their Health Care." *Nicotine & Tobacco Research*, 7(S1): S29–S34, 2005. Available online.
- Conroy MB, Majchrzak NE, Silverman CB, Chang Y, Regan S, Schneider LI and Rigotti NA. "Measuring Provider Adherence to Tobacco Treatment Guidelines: A Comparison of Electronic Medical Record Review, Patient Survey, and Provider Survey." *Nicotine & Tobacco Research*, 7(S1): S35–S43, 2005. Available online.

8. Does Telephone Counseling Enhance the Effects of Pharmacotherapy for Smoking Cessation in a Real-World Setting? (ID# 044163), HealthPartners Research Foundation (Minneapolis)

Researchers at the HealthPartners Research Foundation sought to determine whether offering counseling to smokers who had been prescribed smoking-cessation medications would increase their use of those medications, their attempts to quit and their success rate.

The researchers identified 1,329 such patients at HealthPartners, a Minneapolis-based heath maintenance organization, and randomly assigned them either to an intervention group receiving an offer of counseling or to a control group not offered counseling.

The researchers were able to reach and offer counseling to 49 percent of the intervention group. Those offered counseling could choose between general counseling and a telephone-based course for smoking cessation.

Findings

- **Some 63 percent of those who were offered counseling (31 percent of the total intervention group) agreed to receive some counseling.**
- **Smokers in the intervention group (including those who declined counseling) were significantly more likely to use their smoking-cessation medication for more than 30 days than the control group.**
- **There were no differences in rates of quit attempts between the intervention and control groups.**
- **Three months after they had filled their initial prescriptions, smokers in the intervention group (including those who declined counseling) were more likely to have quit than the control group (33.1 percent vs. 27.4 percent).**

Publications

- Boyle RG, Solberg LI, Asche SE, Boucher JL, Pronk NP and Jensen CJ. "Offering Telephone Counseling to Smokers Using Pharmacotherapy." *Nicotine & Tobacco Research,* 7(S1): S19–S27, 2005. Available online.

9. Building a Computerized Infrastructure for the Next Generation of Population-Based Managed Care Tobacco Initiatives (ID# 035855), Group Health Cooperative (Seattle)

In 1999, the Seattle-based Group Health Cooperative began to monitor patient tobacco use and provider tobacco-cessation interventions through its automated billing system.

Physicians were required to record a patient's tobacco-use status, advice to quit smoking and any other tobacco-related intervention on the automated treatment record form at each primary care visit.

Individual health care providers received monthly performance feedback on their identification of patients who smoked and documentation of advice and/or intervention for these patients.

In addition, to make identification and documentation of smokers and interventions used with them a priority in the organization, Group Health Cooperative linked 10 percent of the year-end bonus for senior leadership (CEO; vice presidents and their direct reports; medical director, associate medical directors and their direct reports) to performance in this area.

Researchers from the health system conducted an audit of patients' charts and examined data from the automated billing system to measure changes in:

- The rates of documentation of tobacco-use status.
- Identification of tobacco users.
- Documentation of provider interventions for the period 1998 (one year before the automated billing system) through 2000.

Findings

- **From January 1999 to December 2000, the percentage of primary care visits at which providers documented tobacco-use status rose from 22 percent to 86 percent.** In 1998, providers had documented tobacco-use status for only 7.5 percent of primary care visits.
- **The number of patients identified as smokers increased from an average of 1,840 per month in 1998 to 5,101 in 1999 and 6,348 per month in 2000.** The overall number of primary care visits remained stable during this time period.
- **The number of patients who received documented smoking-cessation interventions also increased 197.5 percent over the study period-from 1,345 in November 1998 to 4,002 in November 2000.**
- **The organization met its target goals for documentation of and intervention with smokers in 1999 and 2000, and senior leaders received the portion of the bonus based on this measure.**

Conclusions

The researchers attribute this success to several factors:

- Establishing a long-term commitment to tobacco-use reduction as a priority for the organization.
- Commitment by top leadership to the initiative, cemented with financial incentives.
- Providing rapid feedback on performance to those implementing the changes.
- Embedding tobacco-cessation efforts in a quality initiative rather than presenting them as a freestanding project.
- Educating health care providers and administration about the health care and financial toll of tobacco, and the efficacy and ease of brief interventions.
- Providing easy access to covered cessation support for motivated tobacco users.
- Keeping changes related to the initiative as simple and clear as possible.

Publications

- McAfee T, Grossman R, Dacey S and McClure J. "Capturing Tobacco Status Using an Automated Billing System: Steps Toward a Tobacco Registry." *Nicotine & Tobacco Research*, 4(S1): S31–S37, 2002. Abstract available online.

PROGRAM ASSESSMENT FINDINGS

The Lewin Group conducted an assessment of the impact of the *Addressing Tobacco in Managed Care* research program in 2003 (for more details, see Program Assessment), and reported the following findings about program accomplishments in a report to RWJF:

- ***Addressing Tobacco in Managed Care* increased managed care organizations' awareness of the need for tobacco screening and cessation services.** The program kept tobacco-cessation interventions on the "radar screen" of managed care companies.

- **The program was instrumental in developing a research base and a cadre of researchers examining tobacco-cessation interventions and the institutional changes needed to promote them.** The program brought together a group of researchers, many with minimal prior experience in the field, who have become leaders and innovators in tobacco-cessation research. These researchers are committed to conducting additional research in the field and building upon their expertise.

- ***Addressing Tobacco in Managed Care* influenced changes within health systems.** The involvement of the program and the funding that it provided for planning and evaluation served as a catalyst prompting health systems to spend a significant amount of money implementing tobacco-cessation services and institutional changes to promote these services.

  In addition, the initiative helped to "normalize" support for smoking cessation within health systems. Health systems now perceive that their infrastructure and delivery system is lacking if it does not have the internal policies to promote access to and utilization of smoking-cessation services.

- **The program produced high-quality, useful research findings.** These findings are especially noteworthy because the research was conducted in real-world settings, which required researchers to continually adapt to unexpected environmental changes. Nonetheless, the findings must be viewed as incremental because they have gradually advanced the field but did not include a single, high-profile finding.

- **With its focus on "real-world" studies, *Addressing Tobacco in Managed Care* identified replicable, cost-effective, high-impact changes in health care systems relevant to tobacco cessation, as well as challenges and barriers to making those changes.**

- **The findings from *Addressing Tobacco in Managed Care* have applicability for health behaviors and conditions beyond tobacco use.** The lessons learned during the program—including how to encourage collaboration among physicians, health plans and researchers—can be applied to programs and policies addressing alcohol use, physical inactivity and diabetes.
- **The national research program office fostered partnerships and collaboration between tobacco researchers and managed care plans.** The national research program office often acted as a matchmaker, linking researchers and health plans through its website and during site visits. It also mandated that senior management from the managed care organizations participate in the research efforts.

The Lewin Group concluded that the program should broaden its focus beyond managed care to include a range of health care delivery systems (because not all populations are served by managed care organizations). It also recommended that RWJF apply program findings to a range of health conditions and health behaviors, such as diabetes, heart disease, alcohol use and physical activity.

An important way to enhance the enduring impact of the program, according to the assessment, was to keep together the network of tobacco-control researchers that had been created. See Afterward for RWJF's response to that recommendation.

SIGNIFICANCE TO THE FIELD

Many changes occurred in the health care and health policy environment during 1997 to 2005 while *Addressing Tobacco in Managed Care* was in full operation. While these changes cannot be attributed directly to *Addressing Tobacco in Managed Care*, the work of the two-part program informed these changes through the support of rigorous research, dissemination of research findings, and active involvement of the national research program office leadership in many national and state policy endeavors.

RWJF's Orleans summarized these changes at the May 2005 capstone conference:

- **Both the coverage and accessibility of tobacco-dependence treatments have increased dramatically.**
  - Some 40 state Medicaid programs now provide some coverage for tobacco-dependence treatment, up from 24 in the mid-1990s.
  - Medicare now covers tobacco-cessation counseling, and the Medicare Prescription Drug Act of 2006 includes medication for tobacco-dependence treatment as a covered benefit. Prior to 2005, Medicare did not cover tobacco-dependence treatment.

- In 2002, 98 percent of health plans that responded to the survey conducted by America's Health Insurance Plans reported that they provided full coverage for tobacco-cessation counseling or medication, up from 75 percent in 1997.
- A national quit line network that provides telephone counseling services is available to all U.S. residents. In the mid-1990s, only four states had tobacco cessation quit lines.

- **Clinicians and managed care organizations are more likely to intervene with smokers.**
  - In 2000, 62 percent of smokers reported receiving physician advice to quit, up from about 40 to 50 percent of smokers reported receiving this advice in the mid-1990s.
  - In 2003, nearly 70 percent of managed care enrollees who smoked reported receiving physician advice to quit, compared to 61 percent in 1996.
- **Accreditation organizations are measuring the delivery of tobacco-dependence treatment.**
  - Three HEDIS measures now gauge provider and health plan delivery of evidence-based tobacco-dependence treatment.
  - In 2002, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), which assesses hospital performance on a variety of measures as part of the accreditation process, began to examine whether hospitals were providing smoking-cessation counseling to patients suffering from pneumonia, heart failure or heart attack.

LESSONS LEARNED

1. **When conducting research in real-world settings with real-world partners, expect delays, roadblocks, and frustrations related to day-to-day operations and changes in the industry.** Managed care organizations experienced many business and regulatory changes over the life of the *Addressing Tobacco in Managed Care* program, and these changes affected the ability of organizations to gather data and make research a priority. If managed care organizations could use the research activities of *Addressing Tobacco in Managed Care* to satisfy a regulatory requirement or performance measure, it increased organizational commitment to research efforts. (National Technical Assistance Director/Lardy, National program office/Fiore, Curry and Keller)
2. **To sustain real-world research partnerships, encourage participating organizations and academic researchers to be flexible and expect their research design to evolve.** Faced with corporate mergers, staff turnover and changing marketplace dynamics, project teams managed the turbulence, modified their research

operations and even changed their research designs when necessary. A clear understanding of the role and responsibilities of each partner in the research relationship was the foundation for this flexibility. (National Research Program Office/Fiore, Curry and Keller)

3. **To maintain the integrity of research initiatives conducted in real-world settings, communicate with both researchers and their partners in the field regularly.** When research takes place within physician practices, health plans and other real-world settings, there may be more extraneous pressures to change critical aspects of study designs. National research program office staff found that timely discussions between researchers, staff at project sites and the national research program office allowed projects to make appropriate adjustments to their research design that accommodated these pressures without sacrificing the scientific integrity of their efforts. Project directors were required to contact national research program office staff before they made any major research design changes. The national research program office communicated this requirement to project directors in their initial correspondence with them. (National Research Program Office/Fiore, Curry and Keller)

4. **Expect challenges when surveying managed care organizations.** The industry is inundated with surveys and requests for data, and limited and shrinking resources often prevent managed care organizations from responding thoroughly and within a responsible period of time. (National Technical Assistance Director/Lardy)

5. **Pave the way for managed care organizations to participate in research projects.** Often, managed care organizations lack research expertise and may be hesitant about engaging in a major research efforts. To support the formation of new managed care/research partnerships, the *Addressing Tobacco in Managed Care* program office staff created a "matchmaking" section on its Web Site that allowed managed care organizations and researchers to enter their contact information and research interests. (National Research Program Office/Fiore, Curry and Keller)

6. **Consider the partnerships and collaboration between academic researchers and real-world clinical settings as fertile ground for health system change and bringing research into the practice world.** (National Research Program Office Deputy Director/Keller)

7. **Facilitate networking among researchers during the course of their project efforts.** Researchers truly value the support and information they gain through meetings, listservs, structured conference calls and informal communication with other researchers working on the same issue. (National Research Program Office/Fiore, Curry and Keller)

8. **Consider multiple strategies to disseminate information on effective evidence-based tobacco-cessation interventions to real-world clinical settings.** The national research program office used a variety of strategies to disseminate information, ranging from articles in journals, websites and newsletters to sponsored conferences,

presentations at professional conferences and policy advocacy. (National Research Program Office Deputy Director/Keller, National Technical Assistance Director/Lardy)

9. **Although awards programs may seem jaded, use them for the vital purpose of showcasing innovative programs both internally and in the marketplace.** The media bump that winners of the Managed Care Achievements in Tobacco Control got in their markets was a stamp of approval that helped managed care organizations protect their programs within their organizations. In addition, it brought these programs onto the radar screen in the managed care marketplace—sometimes compelling other organizations to initiate similar efforts in order to compete. (National Technical Assistance Director/Lardy)

AFTERWARD

Managed care in 2006 looked much different than many experts in 1997 had expected it to. Several developments served to undermine the ability of health insurers to manage the care of a population of patients. They include:

- The predominance within managed care of geographically dispersed networks of independent providers instead of the model that housed staff physicians and other health care providers in a few locations—resulting in less control over individual providers and practices.
- Lack of progress in implementing state-of-the-art management information systems, impeding the capture of data to evaluate progress in the delivery of tobacco-dependence treatment.
- Multiple mergers among managed care organizations, sometimes halting or slowing the adoption of system changes.

Because the promise of managed care alone as a vehicle for changing the health care delivery system eroded over the eight years of the program, RWJF decided in late 2005 that a broader focus was required. It awarded a two-year grant of $400,000 (ID# 048283) to the national program office (which continued to reside at the University of Wisconsin School of Medicine and Public Health under the direction of Michael C. Fiore, M.D., M.P.H. and Susan J. Curry, Ph.D.) to support the Network to Sustain and Expand Tobacco-Related Health Care Policy and Systems Change.

Shortly after, on January 1, 2006, RWJF changed the name of the national program from *Addressing Tobacco in Managed Care* to *Addressing Tobacco in Health Care* to attract a broader array of health services and tobacco-control researchers to networking activities and to extend the program's outreach to a variety of health care systems and insurers.

The new funding was the first "planned" transition grant RWJF had made for a national program, according to the RWJF program officer, Distinguished Fellow/Senior Scientist,

C. Tracy Orleans, Ph.D. Known as a "roots and wings" initiative, the goal was to strengthen the reach and influence of the program in order to:

- Build further capacity and increase funding for its work.
- Influence health care systems change directly through the efforts of program leaders and former grantees.

"The grant's design was informed by the assessment of *Addressing Tobacco in Managed Care* conducted by the Lewin Group, which determined that maintaining and enhancing the network of researchers created under the program could assure its enduring impact," said Orleans.

Under the grant, the charge to the national program office was to:

- Support the existing network of tobacco-control researchers and their partners.
- Disseminate state-of-the-art information and tools to implement systems changes to health plans, health system policy-makers, and state and national policy leaders.
- Provide technical assistance for further research efforts.
- Provide a national platform for emphasizing the importance of systems-level research and maintain the momentum in systems changes that promote tobacco-cessation treatment generated by RWJF's investments in this program.
- Explore the establishment of a public-private partnership that would support all of these activities and identify new mechanisms for health care systems and policy change research grants.

The effort was timely because the Institute of Medicine had identified tobacco-dependence treatment in routine primary care as one of 20 top priorities for health care quality improvement. In addition, private health plans and Medicare and Medicaid coverage for tobacco-dependence treatment had dramatically expanded, and a new public-private National Alliance for Tobacco Cessation had been formed, creating increased demand for the program's research findings and leadership.

Results

Program staff reported the following results in a report to RWJF and interviews with program staff:

- **The national program office hosted three meetings to facilitate networking among tobacco-control researchers and to share cutting-edge research:**
  - "Translating Health Services into Practice and Policy," a national symposium held February 2006 in conjunction with the Society for Research on Nicotine and Tobacco's annual meeting. The society is the leading international tobacco-control

research membership organization. More than 95 researchers, clinicians, policymakers and others attended the forum. Proceedings are available online.

— "Innovations in e-Health and e-Technology for Health Services Research," a national symposium held February 2007 in conjunction with the Society for Research on Nicotine and Tobacco's annual meeting. Some 90 researchers, clinicians, policymakers and other attended the forum. Proceedings are available online.

— An invitation-only "think tank" meeting in March 2008 for 23 experts in health care, health policy, tobacco-control research and research funding. Discussion focused on crucial research questions and how to link systems-change research in tobacco control to existing funding announcements and priorities.

  Participants also identified strategies to ensure that systems-change research remains a funding priority given resource constraints. A meeting summary is available online.

- **The program sustained and grew a network of over 200 tobacco-control researchers, policy-makers, funders, clinicians and others through an e-mail listserv, a website and annual meetings.** "*Addressing Tobacco in Managed Care* and then *Addressing Tobacco in Health Care* served as the nexus for the development and support of a dynamic network of systems-level researchers focused on tobacco dependence," said the program directors.

- **The network and its leadership worked with state and national policy-makers to encourage systems changes that fostered evidence-based tobacco-dependence treatment.** For example:

  — Program co-directors Fiore and Curry worked with the Centers for Medicare & Medicaid Services as it designed a new Medicare benefit to cover tobacco-cessation counseling, which went into effect in 2006.

  — Fiore led the 2008 update of the Public Health Service Clinical Practice Guideline, *Treating Tobacco Use and Dependence,* funded by the Agency for Healthcare Research and Quality, RWJF and the American Legacy Foundation. Curry served on a panel that informed the process. The updated guideline, released in May 2008, is available online.

  — Deputy director Paula Keller served on the expert panel advising the CDC on the 2007 update of *Best Practices for State Comprehensive Tobacco Control Programs.* The guide is available online.

  — Fiore presented evidence in support of systems change at the June 2006 National Institutes of Health (NIH) State of the Science conference on tobacco. The Consensus Statement from the NIH conference is available online.

- Program staff worked with the Society for Research on Nicotine and Tobacco, to include systems-level tobacco control on its radar screen and conference agenda.

- **The national program office helped the network of tobacco researchers link to other funders and explore options for sustainability.** Program staff:
  - Held discussions with potential funders to leverage the RWJF funding, identify new funding streams and keep systems-change research as a funding priority.
  - Compiled, updated and disseminated summaries of systems-change research funding available from federal and non-federal sources. Because funding for tobacco-control research in general declined during the grant period, these summaries also included more broadly defined health services research funding opportunities. Staff distributed a final summary to participants at the March 2008 think tank meeting and posted it online at the *Addressing Tobacco in Health Care* website.
  - Invited funders to attend the three meetings mentioned above, creating opportunities for new connections to be made.

Communications

The program office rebranded the website of the original *Addressing Tobacco in Managed Care* program as *Addressing Tobacco in Health Care* (*www.athc.wisc.edu*) and used it as the primary tool for sharing information and resources with the health services research community.

Program staff also created and maintained an e-mail listserv with over 200 subscribers, including researchers, policy-makers and clinicians, to post funding announcements, conference information and other resources for the health services research community.

Program staff published papers in peer-reviewed journals, including an article in the *Annual Review of Public Health* and a commentary in an *American Journal of Preventive Medicine* supplement (see the Bibliography).

Lessons Learned About Transitioning a Program

1. **Plan for the post-RWJF grant period early in the life of a program.** The national program office made identifying other sources of funding for the research network a priority during this transition grant in order to sustain its focus. (Fiore and Curry/National Program Co-directors)

2. **Collaboration between the national program office staff and the network of tobacco-control researchers was a powerful tool for achieving common goals.** The national program office nurtured and expanded the cadre of researchers interested in systems change related to tobacco control, encouraging them to

collaborate on publications, presentations and research proposals to further the science base. (Fiore and Curry/National Program Co-directors)

After the Network: Moving Forward

With the end of RWJF funding, formal activities within the network of researchers have ceased. However, national program office staff individually and jointly continue their work to further systems-level research in tobacco control. Deputy director Paula Keller is taking the lead on developing strategies for national dissemination of the 2008 update to the Public Health Service Clinical Practice Guideline, *Treating Tobacco Use and Dependence,* with support from multiple national funders, including RWJF (ID# 063443).

In addition, national program office staff members are working with the U.S. Department of Health and Human Services on *Healthy People 2020* to define tobacco-use objectives, as well as cessation strategies and insurance-coverage goals.

Prepared by: Karin Gillespie
Reviewed by: Robert Narus, Karyn Feiden and Molly McKaughan
Program officer: C. Tracy Orleans

APPENDIX 1

RWJF's Role in the Development and Promotion of HEDIS Tobacco Measures and in the Development of the AHCPR Smoking-Cessation Guideline, Its Dissemination and Revision

HEDIS

- Funded the development of National Committee on Quality Assurance (NCQA) HEDIS 3.0 (Health Plan Employer Data and Information Set) performance measures for tobacco use and addiction. See Program Results on ID# 028757.
- Funded the development and field testing of additional HEDIS measures assessing the quality of health plan treatment for tobacco use and addiction. See Program Results on ID# 037080.

AHCPR Guideline

- Funded the production of the AHCPR pocket guide (see Program Results on ID# 029466).
- Provided funding for a national conference on the guideline and dissemination of its proceedings (see Program Results on ID# 030465).
- Funded an array of medical societies to disseminate the guideline (see Program Results on ID# 030525).
- Funded two major unions to figure out how best to disseminate information about the guideline to leaders and members (see Program Results on ID# 029471).
- Along with other funders, supported the 2000 update of the guideline (see Program Results on ID# 034068).

APPENDIX 2

Addressing Tobacco in Managed Care National Advisory Committee Members

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

Jasjit S. Ahluwalia, M.D., M.P.H., M.S.
Director
Office of Clinical Research
University of Minnesota
Minneapolis, Minn.

Helen Halpin, Ph.D.
Professor of Health Policy
School of Public Health
University of California, Berkeley
Berkeley, Calif.

Samuel H. Havens, J.D.
Corporation Member
Blue Cross & Blue Shield of Rhode Island
Barrington, R.I.

Jack F. Hollis, Ph.D.
Associate Director
Kaiser Permanente Center for Health Research
Portland, Ore.

Carlos Roberto Jaén, M.D., Ph.D. (Chair)
John M. Smith, Jr. Professor and Chairman
Department of Family and Community Medicine
University of Texas Health Sciences Center-San Antonio
San Antonio, Texas

Andrea I. Kabcenell, R.N., M.P.H.
Cornell University
Ithaca, N.Y.

Timothy McAfee, M.D., M.P.H.
Chief Medical Officer
Free & Clear, Inc.
Tukwila, Wash.

Robin Mermelstein, Ph.D.
Professor, Department of Psychology
Deputy Director, Health Research and Policy Centers
University of Illinois at Chicago
Chicago, Ill.

Judith K. Ockene, Ph.D.
Professor of Medicine and Director of Division of Preventive and Behavioral Medicine
University of Massachusetts Medical Center
Worcester, Mass.

Lynn E. Oveson, R.N., M.N.
Adult Nurse Practitioner
Oregon Health Sciences University
Pulmonary and Critical Care Division-UHN 67
Portland, Ore.

Bruce C. Perry, M.D., M.P.H.
Medical Director
Southeast Permanente Medical Group
Atlanta, Ga.

Edward H. Wagner, M.D., M.P.H.
Director
Center for Health Studies and W.A. MacColl Institute for Health Care Intervention
Group Health Cooperative of Puget Sound
Seattle, Wash.

Previous NAC Members

George J. Isham, M.D. (Chair)
Medical Director
HealthPartners
Bloomington, Minn.

Jeffrey P. Koplan, M.D.
Executive Vice President for Health Affairs
Woodruff Health Sciences Center
Emory University
Atlanta, Ga.

APPENDIX 3

Project List

Nine projects are described in the national program report. They are listed first, followed by other projects in the program.

Described in the Report

Linking peer-and neighborhood-based smoking cessation with clinic-based services for low-income African Americans

Implementation

Washington University
Saint Louis, Mo.
Grant ID# 036026

Planning a project to test interventions for tobacco cessation in primary care

Planning

Maine Medical Assessment Foundation

Skowhegan, Maine

Grant ID# 036387

Dental office-based tobacco cessation interventions

Implementation

Columbia University

New York, N.Y.

Grant ID# 036025

Evaluation of a pharmacy benefit for smoking cessation aids

Implementation

HealthPartners Research Foundation

Minneapolis, Minn.

Grant ID# 036022

Integrated computer-based system for treating nicotine dependence in a medically indigent managed care population

Planning

Indiana University School of Nursing

Indianapolis, Ind.

Grant ID# 044166

Evaluation of a tobacco cessation program using a primary care electronic medical record

Implementation

Providence Health Systems, Oregon Region

Portland, Ore.

Grant ID# 044151

Evaluation of provider utilization of a new state tobacco dependence reimbursement program

Implementation

General Hospital Corp.-Massachusetts General Hospital

Boston, Mass.

Grant ID# 044417

Does telephone counseling enhance the effects of pharmacotherapy for smoking cessation in a real-world setting?

Implementation

HealthPartners Research Foundation

Minneapolis, Minn.

Grant ID# 044163

Building a computerized infrastructure for the next generation of population-based managed care tobacco initiatives

Planning

Group Health Cooperative

Seattle, Wash.

Grant ID# 035855

Not Described in the Report

Adult smoking cessation in pediatric practices

Planning

University of Alabama at Birmingham

Birmingham, Ala.

Grant ID# 035852

Study of the feasibility and impact of incorporating biochemical assessment of smoking status through routine prenatal managed care

Planning

HealthCare Partners Institute for Applied Research and Education

Los Angeles, Calif.

Grant ID# 044245

Smoking cessation in pregnancy: creating systems that work

Planning

HMO Colorado

Denver, Co.

Grant ID# 035851

Planning a systems-level strategy to address tobacco in a Medicaid managed care organization

Planning

General Hospital Corporation-Massachusetts General Hospital

Boston, Mass.

Grant ID# 044042

Partnerships to promote smoking cessation within a managed care organization serving African-American Medicaid-eligible persons

Planning

Wayne State University

Detroit, Mich.

Grant ID# 035847

Evaluation of organizational changes to promote smoking cessation within managed care

Implementation

Michigan State University College of Human Medicine

East Lansing, Mich.

Grant ID# 043968

Study of the effects of two tobacco cessation interventions in a medical group practice

Implementation

Allina Medical Group

Minneapolis, Minn.

Grant ID# 036023

Planning a study of incentives to encourage patients to identify their tobacco use and solicit cessation advice

Planning

Wake Forest University School of Medicine

Winston-Salem, N.C.

Grant ID# 036386

Using information technology to increase tobacco cessation behaviors by dentists in a managed care setting

Implementation

Columbia University School of Dental and Oral Surgery

New York, N.Y.

Grant ID# 044167

Promoting smoke-free families in the pediatric health setting

Planning

Children's Hospital

Columbus, Ohio

Grant ID# 035849

Use of tracking codes to monitor smoking cessation in an IPA-model HMO

Planning

Providence Health Plans

Portland, Ore.

Grant ID# 035854

Designing a provider incentive system to increase adherence to maternity tobacco cessation guidelines

Planning

Providence Health Systems, Oregon Region

Portland, Ore.

Grant ID# 043969

Research on addressing parental smoking at pediatric visits

Planning

University of Pittsburgh School of Medicine

Pittsburgh, Pa.

Grant ID# 044647

Effect of a smoking cessation telephone resource on physician adherence to AHCPR guidelines

Planning

University of Vermont Office of Health Promotion Research

Burlington, Vt.

Grant ID# 035850

Facilitating tobacco cessation in community and migrant health centers

Planning

University of Washington

Seattle, Wash.

Grant ID# 035853

Developing a public-private approach to tobacco addiction

Planning

State of Wisconsin Department of Health and Family Services

Madison, Wis.

Grant ID# 035848

APPENDIX 4

Managed Care Achievements in Tobacco Control Award Winners

1998

- **First Place for Adult Tobacco-Control Initiatives**

  Group Health Cooperative of Puget Sound, Seattle, for its comprehensive approach to tobacco-use reduction among members.

- **Second Place for Adult Tobacco-Control Initiatives**

  Kaiser Permanente Northwest, Portland, Ore., for a medical office-based smoking-cessation system designed to overcome many of the barriers to delivering effective tobacco-control interventions in busy managed-care settings.

- **First Place for Youth/Adolescent Tobacco-Control Initiatives**

  Kaiser Permanente Northeast, Williston, Vt., for its Tar Wars youth smoking prevention program, which reaches out to 96 schools.

- **Second Place for Youth/Adolescent Tobacco-Control Initiatives**

  Allina Health System, Minneapolis, Minn., for its live interactive theater program, which includes plays, classroom curriculum and workbooks on smoking prevention for students in kindergarten through sixth grade.

- **First Place for Private Public Partnerships in Tobacco Control**

  Blue Cross and Blue Shield of Minnesota, St. Paul, Minn., for its partnership with the State Attorney General's Office to bring a landmark antitrust suit against tobacco companies and develop a community blueprint for the reduction of tobacco use in the state.

- **First Place for Tobacco Control in Special Populations**

  Healthsource Maine, Freeport, Maine, for a telephone smoking-cessation program offered to rural health plan members and their dependents.

- **Merit Award**

  Kaiser Permanente Northeast, Williston, Vt., for its multifaceted youth tobacco-prevention program, implemented in collaboration with the Vermont Department of Health, that funds peer-leadership retreats, tobacco training for youth and public awareness campaigns.

- **Merit Award**

  Kaiser Permanente Ohio, Brooklyn Heights, Ohio, for a population-based smoking-cessation initiative that was integrated into the primary care delivery system.

- **Merit Award**

  Penn State Geisinger Health Plan, Danville, Pa., for a tobacco prevention and cessation program targeted to adolescents that includes a performance and educational materials.

1999

- **First Place for Adult Tobacco-Control Initiatives**

  HealthPartners, Minneapolis, Minn., for a program that provides financial rewards for medical groups that have higher rates of patients that stop smoking.

- **Second Place for Adult Tobacco-Control Initiatives**

  Blue Cross Blue Shield of Maine, South Portland, Maine, for a population-based tobacco-control initiative based on the Clinical Practice Guideline on Tobacco Cessation issued by the Agency for Health Care Policy and Research.

- **First Place for Youth/Adolescent Tobacco-Control Initiatives**

  Kaiser Permanente Ohio Region, Brooklyn Heights, Ohio, for a school-based educational theater program, *Professor Bodywise's Traveling Menagerie*, that includes smoking-cessation messages.

- **Second Place for Youth/Adolescent Tobacco-Control Initiatives**

  Health Plan of Nevada, Las Vegas, Nev., for its Smoking Stinks partnership, that with the American Cancer Society, a television station, two radio stations, advertising agencies and a local school district, provides public service announcements, educates teachers and offers special events for students.

- **First Place for Tobacco Control in Pregnancy**

  Southern California Kaiser Permanente, Pasadena, Calif., for a program that identifies prenatal smokers and mails them a self-help smoking-cessation booklet.

- **First Place for Tobacco Control in Special Populations**

  Network Health Plan, Menasha, Wis., for a smoking-cessation program that uses telephone counseling to assess a patient's smoking habits and readiness to quit and then develops a personalized smoking-cessation program.

- **First Place for Private/Public Partnerships in Tobacco Control**

  Group Health Cooperative of Puget Sound, Seattle, for its partnership with seven other community organizations to assure that Washington state legislators receive appropriate tobacco-settlement dollars to fund health care priorities, including tobacco prevention and cessation.

- **Special Recognition for Youth/Adolescent Tobacco-Control Initiatives**

  United Healthcare Corporation, Eden Prairie, Minn., for a live theater production that provides an anti-smoking message to elementary school students.

- **Merit Award**

  Providence Health Plan, Portland, Ore., for its multifaceted tobacco-cessation program that includes patients at every contact point in the health system.

- **Merit Award**

  First Priority Health Plan, Wilkes Barre, Pa., for its Youth Against Tobacco Conference offered to 450 fourth-grade students.

- **Merit Award**

  Humana, Louisville, Ky., for its partnership with the American Lung Association to implement its Teens Against Tobacco Use program in nine cities that Humana serves.

- **Merit Award**

  Health Care Plan, Buffalo, N.Y., for a public awareness campaign designed to reduce tobacco use among youth.

2000

- **First Place for Adult Tobacco-Control Initiatives**

  Providence Health System, Portland, Ore., for its multifaceted tobacco-cessation program.

- **Second Place for Adult Tobacco-Control Initiatives**

  Health Alliance Plan, Detroit.

- **First Place for Public-Private Partnerships for Tobacco Control**

  Group Health of Puget Sound, Seattle, for its partnership with the Kaiser Center for Health Research to developed the Oregon Tobacco Quit Line.

- **Special Recognition for Policy Implementation**

  Blue Cross and Blue Shield of Minnesota, Eagan, Minn., for its program to engage communities to take action against youth tobacco use.

2001

- **First Place for Adult Tobacco-Control Initiatives**

  Blue Cross Blue Shield of Minnesota, Eagan, Minn., for its comprehensive approach to tobacco cessation that includes telephone-based, tailored, one-on-one counseling.

- **Second Place for Adult Tobacco-Control Initiatives**

  Kaiser Permanente Northern California, Oakland, Calif., for its program that integrates tobacco-dependence treatment into routine outpatient clinical care.

- **First Place for Tobacco Control in Pregnancy**

  Aetna U.S. Healthcare, Blue Bell, Pa., for a non-nicotine-based smoking-cessation program offered to pregnant smokers.

- **First Place for Tobacco Control in Special Populations**

  Providence Health Plan, Portland, Ore., for a systematic approach to addressing tobacco use in hospitalized patients in three community hospitals in Portland.

- **Merit Award for Adult Tobacco-Control Initiatives**

  Fallon Community Health Plan, Worcester, Mass., for a tobacco treatment program that offers weekly counseling sessions and low-cost nicotine patches or gum.

- **Merit Award for Adult Tobacco-Control Initiatives**

  Highmark Blue Cross Blue Shield/ Keystone Health Plan, Pittsburgh, for its effort to identify and address barriers to physicians advising patients to quit smoking.

- **Merit Award for Adult Tobacco-Control Initiatives**

  PacifiCare of Oregon, Oswego Lake, Ore., for a no-cost, self-paced smoking-cessation program.

- **Merit Award for Tobacco Control in Pregnancy**

  First Priority Health Plan, Wilkes Barre, Pa., for a smoking-cessation training and counseling program for health care professionals who care for pregnant women.

- **Merit Award for Youth/Adolescent Tobacco-Control Initiatives**

  Group Health Cooperative, Seattle, for a pilot program for a statewide, toll-free teen quit line.

2002

- **First Place for Tobacco Control in Special Populations**

  Group Health Cooperative, Seattle, for a prototype tobacco cessation program for blue-collar workers.

- **First Place for Public Private Partnerships in Tobacco Control**

  Providence Health System, Portland, Ore., for its efforts to identify the diagnostic and billing codes that could be used to reimburse providers for tobacco-cessation services.

2003

- **First Place for Adult Tobacco-Control Initiatives**

  Blue Cross and Blue Shield of Minnesota in partnership with the American Cancer Society Midwest Division, St. Paul, Minn., for an innovative media campaign designed to reduce tobacco use among college students.

- **First Place for Adult Tobacco-Control Initiatives**

  Group Health Cooperative and Uniform Medical Plan, Seattle, for a telephone-based tobacco-cessation program.

- **First Place for Tobacco Control in Special Populations**

  Blue Cross and Blue Shield of Minnesota and Blue Plus, St. Paul, Minn., for an economically feasible intervention prompting low-income members to enroll in a no-cost tobacco-cessation telephone-counseling program.

- **First Place for Public-Private Partnerships in Tobacco Control**

  Blue Cross and Blue Shield of Minnesota in partnership with the Minnesota Medical Association and the Minnesota Chapter of the American Academy of Pediatrics, St. Paul, Minn., for enlisting more than 1,500 physicians to advocate for an increase in the state tobacco excise tax.

APPENDIX 5

National Technical Assistance Office Surveys of Tobacco-Control Practices and Policies in Health Plans

The national technical assistance office conducted four national surveys of health plans—in 1997, 2000, 2002 and 2003—to determine the extent to which plans had adopted tobacco-control practices and policies.

Ron Davis, M.D., M.A., director of the Center for Health Promotion and Disease Prevention at Henry Ford Health System in Detroit, Mich., and a national leader in tobacco control, helped develop the survey instrument.

National Research Corp., an organization based in Lincoln, Neb., that conducts survey-based performance measurement, analysis and tracking services for the health care industry, fielded the surveys and collected the data.

The CDC provided $20,000 to support the analysis of the survey data.

National technical assistance office staff presented the survey findings at professional meetings and conferences, including the National Tobacco OR Health conference.

Staff members published findings in professional journals (see the Bibliography) and in *Medical Affairs Issue Report* (the newsletter published by America's Health Insurance Plans for health plan medical directors, CEOs and quality managers) and *HealthPlan* (the national magazine of America's Health Insurance Plans, which is distributed to some 7,000 readers).

1997 Survey Findings

The results from this baseline survey, which included responses from 323 health plans, were published in a December 1998 supplement to the journal, *Tobacco Control*, which is available online.

- More than 71 percent of responding managed care organizations were aware of the smoking cessation guideline issued by the Agency for Health Care Research and Policy in 1996; 39 percent of plans had at least partially implemented recommendations contained in the guideline.
- Some 31 percent of managed care organizations covered counseling services for smoking cessation.
- Approximately 45 percent of plans targeted pregnant women for smoking-cessation interventions.

- Nearly 60 percent of managed care organizations reported that they perceived time constraints as a significant barrier to providers effectively addressing tobacco use among plan members.
- The managed care organizations reported that pharmaceutical treatments for nicotine addiction are rarely covered in full.

2000 Survey Findings

This survey provided a look at the progress managed care plans made with tobacco-control practices and policies from the baseline survey conducted by America's Health Insurance Plans in 1997. Representatives of 85 plans, collectively serving more than 26 million people, completed the survey.

The results from this survey were published in a 2002 issue of the journal, *Preventive Medicine in Managed Care*.

- Between 1997 and 2000, the number of health plans the reported providing full coverage for over-the-counter nicotine replacement therapy more than doubled from 6.6 to 14.9 percent.
  - The number of health plans that reported providing full coverage for Zyban, one of the safest and most effective treatments for tobacco dependence, more than doubled from 17.6 percent to 37.2 percent.
  - The number of plans providing full coverage for behavioral intervention did not increase significantly from 1997 to 2000.
- Between 1997 and 2000, the number of health plans that reported having strategies in place to address smoking cessation during pregnancy and smoking relapse during the postpartum period increased significantly: from 45 percent to 59 percent of plans for smoking cessation during pregnancy and from 13.6 percent to 30.5 percent for relapse in the postpartum period.
- Between 1997 and 2000, the percentage of health plans that reported funding either a full-time or part-time person dedicated to tobacco-control activities rose from 7.7 percent to 23.5 percent.
- Between 1997 and 2000, the percentage of plans that reported being able to identify individual members who smoke nearly doubled, increasing from 14.9 percent to 27.1 percent.
- In 2000, 56.5 percent of plans reported having a written clinical guideline for smoking cessation and most of these guidelines were based on a guideline promulgated by a federal agency (e.g., the Agency for Healthcare Research and Quality or the U.S. Public Health Service).

2002 Survey Findings

The findings from this survey represent responses from 152 health plans that cover more than 43.5 million people.

The full findings from this survey were published in the October 2004 issue of the peer-reviewed journal, *Preventing Chronic Disease*, which is available online.

- In 2002, 71 percent of health plans surveyed reported that they had written clinical guidelines for smoking cessation—up from 56.5 percent in 2000. Most of the guidelines were developed internally.
- By 2002, 72 percent of health plans reported that they could identify members who smoke—up significantly from 27 percent of plans in 2000.
- From 1997 to 2002, the number of plans that reported that they provide full coverage for at least one kind of medication for smoking cessation increased more than threefold, jumping from 25 percent to 89 percent.
- From 1997 to 2002, an increasing number of plans reported that they provided telephone counseling (up from 33 to 52 percent) or face-to-face counseling (up from 27 to 41 percent) for smoking cessation. However, there were declines in coverage for group counseling or self-help materials.
- From 1997 to 2002, an increasing number of plans reported that they had implemented a strategy to address smoking cessation during pregnancy (up from 45 to 56 percent) and postpartum periods (up from 14 to 47 percent).
- Health plans reported that they were significantly more likely in 2002 to address tobacco use with members during treatment for a heart attack or chronic illness than they were in 1997.

2003 Survey Findings

The findings from this survey represent responses from health plans that cover more than 60 million people.

The June 2006 issue of the peer-reviewed journal, *Preventing Chronic Disease* contains the full findings. It is available online.

Findings include the following:

- From 1997 to 2003, health plans demonstrated increasing use of evidence-based programs and clinical guidelines to address tobacco use.
- Plans have shown substantial improvement in their ability to identify all or some of their members who smoke.

- The number of health plans providing full coverage for any type of medication for tobacco cessation has tripled since 1997. Some 87.8 percent of plans cover any medication for smoking cessation—up from 25 percent in 1997.
- Some 67 percent of plans had specific strategies to address smoking cessation during pregnancy in 2003, up from 45 percent in 1997; similarly the percent of plans with a strategy to address smoking cessation during postpartum visits rose from 13.6 percent in 1997 to 46.8 percent in 2003.
- Some 56.4 percent of plans reported having a specific strategy to address smoking cessation during treatment for myocardial infarction, and 64.7 percent during treatment for a chronic illness, which is more than double the 1997 rate.
- Some 91 percent of health plans reported addressing tobacco cessation with patients already participating in disease management programs, underscoring the importance of disease management as a vehicle for advancing tobacco-cessation efforts.

The journal article concludes: "Despite improvements, important opportunities remain for health insurance plans and other stakeholders to expand their tobacco control-activities and transfer the lessons learned to other health problems."

APPENDIX 6

Conclusions From the May 5, 2005, RWJF Capstone Conference *Addressing Tobacco in Managed Care*: Synthesizing Lessons Learned and Identifying Future Research Opportunities

In May 2005, RWJF convened a capstone conference, *Addressing Tobacco in Managed Care: Synthesizing Lessons Learned and Identifying Future Research Opportunities.* The conference, which was co-funded by RWJF, the CDC and the Agency for Healthcare Research and Quality, brought together 95 systems-change researchers, health plan representatives, policy-makers and funders. The conference report is available online.

The conference featured panel discussions on three categories of systems-level strategies: (1) provider education, reminder systems and feedback; (2) incentives and reimbursement; and (3) use of technology.

Conclusions

Among the conclusions that emerged from the conference were:

- **Changes that affect systems operations, such as provider reminder systems, the combination of provider education and feedback, and interventions that incorporate patient education are effective in increasing providers' use of tobacco-use cessation strategies.**

- **Systems-level rewards, such as extra income or public recognition for providing high quality care, can be a catalyst for providers to support tobacco-use cessation efforts, especially when the rewards come quickly and are well-targeted.**
- **Technology, such as provider coaching using CD-ROMs and e-mail and interactive-voice technology that captures patient data, can be effective in increasing providers' use of tobacco-use cessation strategies.**
- **Tools to support tobacco-use cessation do exist and are becoming widespread, but the motivation of providers and patients to use these tools continues to be essential for their success.**
- **There is a body of knowledge beginning to be built around tools that work to create motivation to change, but more research is needed in several areas.**
- **An important area for future study is how new treatment and delivery approaches (especially those based on technology) can enhance motivation to change (both for providers delivering advice and assistance for their patients to quit and for patients receiving it).**

Recommendations

Conference participants recommended further research to determine:

- **The characteristics of optimal provider feedback (e.g., how often, in what form).**
- **The optimal size of financial incentives for providers.**
- **The correct mix of technologies to support providers.**

APPENDIX 7

Factors for Diffusion of Results and Findings - From the September 2005 Roundtable Meeting, *Addressing Tobacco in Managed Care*: The Path Ahead

The purpose of this meeting, organized by America's Health Insurance Plans in its role as the national technical assistance office of *Addressing Tobacco in Managed Care*, was to propose and explore ideas to sustain and capitalize on the achievements of the program. A summary of the roundtable is available online.

Participants identified three factors that will affect the diffusion of program results and findings:

- **The health insurance marketplace is moving to a model that expects cost savings and improved outcomes to result from greater consumer choice.** Achieving these outcomes, especially those related to tobacco-use cessation, will require:
  - Better methods of informing consumers about the cost implications and benefits of their health-treatment choices.
  - Better understanding of how to use incentives to promote tobacco-use cessation and the application of effective treatments and services.
- **Good models that demonstrate a clear financial benefit from investing in tobacco-cessation strategies are not enough on their own to prompt health care plans to adopt those strategies.** The economic analysis needs to become part of compelling, locally focused and understandable "stories" that resonate with politicians, policy-makers, consumers and employers. These stories need to be told to business leaders using familiar media. In addition, providers, smokers and successful quitters need to help tell the story.
- **Efforts to apply the lessons learned about successfully preventing and treating tobacco dependence to the prevention and treatment of obesity need to:**
  - Begin with the development of a strong evidence base for obesity prevention and treatment.
  - Address building public support for environmental changes to control obesity.
  - Recognize that multiple health risk behaviors often co-exist and interact.

BIBLIOGRAPHY

(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

National Research Program Office

Book Chapters

Anderson JE, Smith SS, Jorenby DE and Fiore MC. "Smoking Cessation." In *Cardiovascular Health and Disease in Women, Second Edition,* Douglas PS (ed.). Philadelphia: Saunders, 2002.

Curry SJ, Wetter DW, Grothaus LC, McClure JB, Taplin SH. "Designing and Evaluating Individual-Level Interventions for Cancer Prevention and Control." In *Handbook of Behavioral Science and Cancer,* SM Miller, DJ Bowen, RT Croyle, J Rowland (eds). Washington: American Psychological Association, 2008.

Curry SJ and Fitzgibbon ML. "Theories of Prevention." In *The Handbook of Health Behavior Change,* S Shumaker, J Ockene, K Riekert (eds), 3rd Edition. New York: Springer Publishing, 2008.

Fiore MC, Bailey WC, Cohen SJ, et al. "Treating Tobacco Use and Dependence." In *Clinical Practice Guideline.* Rockville, MD: U.S. Department of Health and Human Services, 2000.

Fiore MC, Piasecki TM, Baker TB, Jorenby DE and Wetter DW. "Management of Tobacco Addiction." In *Reducing Tobacco Use: A Report of the Surgeon General.* Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2000.

Fiore MC, Sims T, Theobald W. "Treating Tobacco use and Dependence." In *Merck Manual,* Edition 18, Treating Tobacco Dependence Chapter. Whitehouse Station, NJ: Merck & Co. Inc., 2006.

Fiore MC. "Smoking Status as the New Vital Sign—Progress and Challenges." In *Drug Addiction Treatment in the Twenty-First Century: Science and Policy Issues,* Henningfield JE, Santora PE, Bickel WK (eds). Baltimore: The Johns Hopkins University Press, 2007.

Fiore MC, Jaén CR, Baker TB, et al. *Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline.* Rockville, MD: U.S. Department of Health and Human Services. Public Health Service, May 2008.

Jorenby DE and Fiore MC. "The Agency for Health Care Policy and Research Smoking Cessation Clinical Practice Guideline—Basics and Beyond." In *Primary Care: Clinics in Office Practice,* Corey H. Evans (ed.). Philadelphia: W.B. Saunders, 1999.

McClure J, Curry S and Wetter D. "Tobacco Cessation." In *Cancer Prevention, Cancer Causes,* Colditz GA (ed.). New York: Kluwer Academic Publishers, 2000.

Smith SS and Fiore MC. "The Epidemiology of Tobacco Use, Dependence, and Cessation in the United States. In *Primary Care: Clinics in Office Practice,* Corey H. Evans (ed.). Philadelphia: W.B. Saunders, 1999.

Articles

Aakko E, Piasecki TM, Remington PL and Fiore MC. "Smoking Cessation Services Offered by Health Insurance Plans for Wisconsin State Employees." *Wisconsin Medical Journal,* 98: 14–18, 1999.

Ad Hoc Working Group in Treatment of Tobacco Dependence. "Realignment of the Nation's Tobacco Agenda: The Need to Treat Tobacco Dependence." *Preventive Medicine,* 32: 95–100, 2001.

Adsit R, Fraser D, Redmond L, Smith SS and Fiore MC. "Changing Clinical Practice, Helping People Quit: The Wisconsin Cessation Outreach Model." *Wisconsin Medical Journal,* 104(4): 32–36, 2005.

Anderson JE and Fiore MC. "Clinician Perseverance: Helping Patients Overcoming Tobacco Dependence." *Wisconsin Medical Journal,* 100(3): 14–15, 2001.

Anderson JE, Jorenby DE, Scott WJ and Fiore MC. "Special Report: Treating Tobacco Use and Dependence: An Evidence-Based Clinical Practice Guideline for Tobacco Cessation." *Chest,* 121: 932–941, 2002.

Anderson P, Balfour DJK, Bates CD, Bö P, Fiore MC, et al. "Consensus Statement on the Treatment of Tobacco Dependence." *Journal of Clinical Psychiatry Monograph,* 18(1): 2–3, 2003.

Baker TB, Hatsukami DK, Lerman C, O'Malley SS, Shields AE and Fiore MC. "Transdisciplinary Science Applied to the Evaluation of Treatments for Tobacco Use." *Nicotine & Tobacco Research,* 5(Suppl. 1): S89–S99, 2003.

Baker TB, Piper ME, McCarthy DE, Majeskie MR and Fiore MC. "Addiction Motivation Reformulated: An Affective Processing Model of Negative Reinforcement." *Psychology Review,* 23(2): 168–77, 2004.

Burns ME and Fiore MC. "Under-Use of Tobacco Dependence Treatment Among Wisconsin's Fee-For-Service Medicaid Recipients." *Wisconsin Medical Journal,* 100(3): 54–58, 2001.

Burns ME, Bosworth TW and Fiore MC. "Insurance Coverage of Smoking Cessation Treatment for State Employees." *American Journal of Public Health,* 94(8): 1338–1340, 2004.

Burns ME, Rosenberg MA and Fiore MC. "Use of a New Comprehensive Insurance Benefit for Smoking-Cessation Treatment." *Preventing Chronic Disease,* 2(4): 1–12, 2005.

Burns ME, Rosenberg MA, Fiore MC. "Use and Employer Costs of a Pharmacotherapy Smoking-Cessation Treatment Benefit." *American Journal of Preventive Medicine,* 32(2): 139–142, 2007.

Clinical Practice Guideline Treating Tobacco Use and Dependence 2008 Update Panel, Liaisons, and Staff. "A Clinical Practice Guideline for Treating Tobacco Use and Dependence: 2008 Update." A U.S. Public Health Service Report. *American Journal of Preventive Medicine,* 35(2): 158–176, 2008.

Cromwell J, Bartosch WJ, Fiore MC, et al. "Cost-Effectiveness of the Clinical Practice Recommendations in the AHCPR Guideline for Smoking Cessation." *Journal of the American Medical Association,* 278(21): 1759–1766, 1997.

Curry SJ, Grothaus LC, McAfee T and Pabiniak C. "Use and Cost-Effectiveness of Smoking Cessation Services Under Four Insurance Plans in a Health Maintenance Organization." *New England Journal of Medicine,* 339(10) 673–679, 1998.

Curry SJ. "Building Effective Strategies to Decrease Tobacco Use in a Health Maintenance Organization: Group Health Cooperative of Puget Sound." *Tobacco Control,* 7(Suppl.):S21–S23, Winter 1998.

Curry SJ. "Organizational Interventions to Encourage Guideline *Implementation*." *Chest,* 118(2 Suppl.): 40S–46S, 2000.

Curry SJ. "Bridging the Clinical and Public Health Perspectives in Tobacco Treatment Research: Scenes from a Tobacco Treatment Research Career." *Cancer Epidemiology Biomarkers and Prevention,* 10(4):281–5, 2001.

Curry SJ, Fiore MC and Burns ME. "Community-Level Tobacco Interventions: Perspective of Managed Care." *American Journal of Preventive Medicine,* 20(2S): 6–7, 2001.

Curry SJ, Fiore MC, Orleans CT and Keller P. "*Addressing Tobacco in Managed Care*: Documenting the Challenges and Potential for Systems-Level Change." *Nicotine & Tobacco Research,* 4(S): S5–S7, 2002.

Curry SJ, Orleans CT, Keller P and Fiore M. "Promoting Smoking Cessation in the Healthcare Environment: 10 Years Later," *American Journal of Preventive Medicine*, 31(3): 269–272, 2006.

Curry SJ. "eHealth Research and Health Care Delivery: Beyond Intervention Effectiveness." *American Journal of Preventive Medicine,* 32(5 Suppl.): S127–130, 2007.

Curry SJ, Sporer AK, Pugach O, Campbell RT and Emery S. "Use of Tobacco Cessation Treatments among Young Adult Smokers: 2005 National Health Interview Survey." *American Journal of Public Health,* 97(8): 1464–1469, 2007.

Curry SJ, Keller PA, Orleans CT, Fiore MC. "The Role of Health Care Systems in Increased Tobacco Cessation." *Annual Review of Public Health,* 29: 411–428, 2008.

Diviak KR, Curry SJ, Emery SL and Mermelstein RJ. "Human Subjects' Challenges in Youth Tobacco Cessation Research: Researchers' Perspectives." *Ethics and Behavior,* 14(4): 321–334, 2004.

Fiore MC, Jorenby DE and Baker TB. "Smoking Cessation: Principles and Practice Based Upon the AHCPR Guideline, 1996." *Annals of Behavioral Medicine,* 19(3): 213–219, 1997.

Fiore MC. "AHCPR Smoking Cessation Guideline: A Fundamental Review." *Tobacco Control,* 6(S1): S4–S8, 1997.

Fiore MC. "The 3-Minute Solution for Smoking Cessation." *Strategic Medicine,* 2(4): 21–26, 1998.

Fiore MC. "Overview of the Agency for Health Care Policy and Research Guideline." *Tobacco Control,* 7: S14–S16, 1998.

Fiore MC, Fleming MF and Burns ME. "Tobacco and Alcohol Abuse: Clinical Opportunities for Effective Intervention." *Proceedings of the Association of American Physicians,* 111(2): 131140, 1999.

Fiore MC, Thompson SA, Lawrence DL, et al. "Helping Wisconsin Women Quit Smoking: A Successful Collaboration." *Wisconsin Medical Journal,* March/April, 2000.

Fiore MC, Bailey WC, Cohen SJ, et al. "A Clinical Practice Guideline for Treating Tobacco Use and Dependence—A U.S. Public Health Service Report." *Journal of the American Medical Association,* 283: 3244–54, 2000.

Fiore MC. "Treating Tobacco Use and Dependence: An Introduction to the US Public Health Service Clinical Practice Guideline." *Respiratory Care,* 45(10): 1196–1199, 2000.

Fiore MC. "US Public Health Service Clinical Practice Guideline: Treating Tobacco Use and Dependence." *Respiratory Care,* 45(10): 1200+, 2000.

Fiore MC, Hatsukami DK and Baker TB. "Effective Tobacco Dependence Treatment. In: Clinician's Corner, Contempo Updates: Linking Evidence and Experience." *Journal of the American Medical Association,* 288(14): 1768–1771, 2002.

Fiore MC and Schroeder LL. "Effective Intervention for Patients Who Use Tobacco: Key Findings From the United States Public Health Service Clinical Practice Guideline: Treating Tobacco Use and Dependence." *Journal of Clinical Psychiatry Monograph,* 18(1): 64–73, 2003.

Fiore MC, McCarthy DE, Jackson TC, et al. "Integrating Smoking Cessation Treatment into Primary Care: An Effectiveness Study." *Preventive Medicine,* 38: 412–420, 2004.

Fiore MC, Croyle RT, Curry SJ, et al. "Preventing Three Million Premature Deaths and Helping Five Million Smokers Quit: A National Action Plan for Tobacco Cessation." *American Journal of Public Health,* 94(2): 205–210, 2004.

Fiore MC, Keller PA and Curry SJ. "Health System Changes to Facilitate the Delivery of Tobacco Dependence Treatment." *American Journal of Preventive Medicine,* 33(6 Suppl.): S349–356, 2007.

Fiore MC, Jaén CR. "A Clinical Blueprint to Accelerate the Elimination of Tobacco Use." *Journal of the American Medical Association,* 299(17): 2083–2085, 2008.

Fishman PA, Khan ZM, Thompson EE and Curry SJ. "Health Care Costs Among Smokers, Former Smokers and Never Smokers in an HMO." *Health Services Research,* 38(2): 733–749, 2003.

Fishman PA, Merikle E, Thompson EE and Curry SJ. "Health Care Costs Before and After Smoking Cessation." *Nicotine & Tobacco Research,* 8(3): 393–401, 2006.

Glasgow RE, Orleans CT, Wagner EH, Curry SJ and Solberg LI. "Does the Chronic Care Model Serve Also as a Template for Improving Prevention?" *Milbank Quarterly,* 79(4): 579–612, 2001.

Hughes JR, Lesmes GR, Hatsukami DK, et al. "Are Higher Doses of Nicotine Replacement More Effective for Smoking Cessation?" *Nicotine & Tobacco Research,* 1: 169–174, 1999.

Jack LM, Swan GE, Thompson E, et al. "Smoking Cessation in Actual Practice: Methods for Recruitment, Screening, and Exclusion for a Field Trial in a Managed-Care Setting." *Preventive Medicine,* 36(5): 585–593, 2003.

Jamerson BD, Nides M, Jorenby DE, et al. "Late-Term Smoking Cessation Despite Initial Failure: An Evaluation of Bupropion Sustained Release, Nicotine Patch, Combination Therapy, and Placebo." *Clinical Therapeutics,* 23(5): 744–752, 2001.

Japuntich SJ, Zehner ME, Smith SS, et al. "Smoking Cessation Via the Internet: a Randomized Clinical Trial of an Internet Intervention as Adjuvant Treating in a Smoking Cessation Intervention." *Nicotine Tobacco Research,* 8(S1): S59–S67, 2006.

Javitz HS, Swan GE, Zbikowski S, et al. "Cost-Effectiveness of Different Combinations of Buproprion SR Dose and Behavioral Treatment for Smoking Cessation: A Societal Perspective." *American Journal of Managed Care,* (10)3: 217–226, 2004.

Javitz HS, Swan GE, Zbikowski S, et al. "Cost-Effectiveness of Different Combinations of Bupropion SR Dose and Behavioral Treatment for Smoking Cessation in a Health Care Setting: An Employer Perspective." *Value in Health,* 7(5): 535–543, 2004.

Jorenby DE, Fiore MC, Smith SS and Baker TB. "Treating Cigarette Smoking With Smokeless Tobacco: A Flawed Recommendation." *American Journal of Medicine,* 104: 499–500, 1998.

Katz D, Muehlenbruch D, Brown R, Fiore MC and Baker TB. "Effectiveness of a Nurse-Based Strategy for Implementing the AHRQ Smoking Cessation Guideline in Primary Care." *Preventive Medicine,* 35: 293–302, 2002.

Katz DA, Muehlenbruch DR, Brown RL, Fiore MC and Baker TB. "Effectiveness of Implementing the Agency for Healthcare Research and Quality Smoking Cessation Clinical Practice Guideline: A Randomized Controlled Trial." *Journal of the National Cancer Institute*, 96(8): 594–603, 2004.

Katz DA, Brown RB, Muehlenbruch DR, Fiore MC and Baker TB. "AHRQ Smoking Cessation Guideline Study Group. Implementing Guidelines for Smoking Cessation: Comparing the Efforts of Nurses and Medical Assistants." *American Journal Preventive Medicine*, 27(5): 411–6, 2004.

Keller PA, Fiore MC, Curry SJ and Orleans CT. "Systems Change to Improve Health and Health Care: Lessons from Addressing Tobacco in Managed Care." *Nicotine & Tobacco Research*, 7(S1): S5–S8, 2005.

Keller PA, Bailey LA, Koss KJ, Baker TB and Fiore MC. "Organization, Financing, Promotion, and Cost of US Quitlines, 2004." *American Journal of Preventive Medicine,* 32(1): 32–37, 2007.

Keller PA, Koss KJ, Baker TB, Bailey LA and Fiore MC. "Do State Characteristics Matter? State-Level Factors Related to Tobacco Cessation Quitlines." *Tobacco Control,* 16(Suppl. 1): i75–80, 2007.

Lando HA, Valanis BG, Lichtenstein E, et al. "Promoting Smoking Abstinence in Pregnant and Postpartum Women in Managed Care: A Comparison of Two Approaches." *American Journal of Managed Care,* 7(7): 685–693, 2001.

Lewis SF, Piasecki TM, Fiore MC, Anderson JE and Baker TB. "Transdermal Nicotine Replacement for Hospitalized Patients: A Randomized Clinical Trial." *Preventive Medicine*, 27: 296–303, 1998.

Ludman EJ, McBride CM, Nelson JC, et al. "Stress, Depressive Symptoms and Smoking Cessation Among Pregnant Women." *Health Psychology*, 19(1): 21–27, 2000.

Ludman EJ, Curry SJ, Grothaus LC, Graham E, Stout J and Lozano P. "Depressive Symptoms, Stress and Weight Concerns Among African American and European American Low-Income Female Smokers." *Psychology of Addictive Behaviors,* 16(1): 68–71, 2002.

McAfee T, Ludman E, Grothaus L, et al. "Physician Tobacco Advice to Pre-Teens in a Smoking-Prevention Randomized Trial: Steering Clear." *Journal of Pediatric Psychology*, 30(4): 371–376, 2005.

McBride CM, Curry SJ, Grothaus LC, Rosner D, Louie D and Wagner E. "Use of Self Help Materials and Smoking Cessation Among Nonvolunteer Intervention Participants." *American Journal of Health Promotion,* 12(5): 321–324, 1998.

McBride CM, Scholes D, Grothaus L, Curry SJ and Albright J. "Promoting Smoking Cessation Among Women Who Seek Cervical Cancer Screening." *Obstetrics and Gynecology,* 91(5 Pt 1): 719–724, 1998.

McBride CM, Scholes D, Grothaus LC, Curry SJ, Ludman EJ and Albright J. "Evaluation of a Minimal Self-Help Smoking Cessation Intervention Following Cervical Cancer Screening." *Preventive Medicine,* 29: 133–138, 1999.

McBride CM, Curry SJ, Lando HA, Pirie PL, Grothaus LC and Nelson JC. "Prevention of Relapse in Women Who Quit Smoking During Pregnancy." *American Journal of Public Health,* 89(5): 706–711, 1999.

McClure JB, Westbrook E, Curry SJ and Wetter DW. "Proactive, Motivationally Enhanced Smoking Cessation Counseling Among Women with Elevated Cervical Cancer Risk." *Nicotine & Tobacco Research,* 7(6): 881–889, 2005.

McPhillips-Tangum C, Rehm B, Carreon R, Erceg CM and Bocchino C. "Addressing Tobacco in Managed Care: Results of the 2003 Survey." *Preventing Chronic Disease,* [serial online], July 2006. Available online.

Mielke MM, Jorenby DE and Fiore MC. "Achieving Smoking Cessation in Nicotine-Dependent Individuals: Practical Guidelines." *CNS Drugs,* 8: 12–20, 1997.

Niederdeppe J, Fiore MC, Baker TB and Smith SS. "Smoking-Cessation Media Campaigns and Their Effectiveness among Socioeconomically Advantaged and Disadvantaged Populations." *American Journal of Public Health,* 98(5): 916–924, 2008.

Nielsen K and Fiore MC. "Cost-Benefit Analysis of Sustained-Release Bupropion, Nicotine Patch, or Both for Smoking Cessation." *Preventive Medicine,* 30: 109–216, 2000.

Pbert L, Moolchan ET, Muramoto M, et al. "The State of Office-Based Interventions for Youth Tobacco Use." *Pediatrics,* 111(6 Pt 1): 650–660, 2003.

Perry RJ, Keller PA, Fraser D and Fiore MC. "Fax to Quit: A Model for Delivery of Tobacco Cessation Services to Wisconsin Residents." *Wisconsin Medical Journal,* 104(4): 37–44, 2005.

Piper ME, Fox BJ, Welsch SK, Fiore MC and Baker TB. "Gender and Racial/Ethnic Differences in Tobacco-Dependence Treatment: A Commentary and Research Recommendations." *Nicotine & Tobacco Research,* 3: 291–297, 2001.

Piper ME, Fiore MC, Smith SS, Jorenby DE, Wilson JR, Zehner ME and Baker TB. "Use of the Vital Sign Stamp as a Systematic Screening Tool to Promote Smoking Cessation." *Mayo Clinic Proceedings,* 78: 716–722, 2003.

Pinney JM, Ahluwalia JS, Arkin EB, Curry S, Fiore MC, et al. "Realignment of the Nation's Tobacco Agenda: The Need to Treat Tobacco Dependence." *Preventive Medicine,* 32: 95–100, 2001.

Pirie PL, Lando H, Curry SJ, McBride CM and Grothaus L. "Tobacco, Alcohol and Caffeine Use and Cessation in Early Pregnancy." *American Journal of Preventive Medicine,* 18(1): 54–61, 2000.

Pollak KI, McBride CM, Curry SJ, Lando H, Pirie PL and Grothaus LC. "Women's Perceived and Partners' Reported Support for Smoking Cessation During Pregnancy." *Annals of Behavioral Medicine,* 23(3): 208–214, 2001. Abstract available online.

Pollak KI, McBride CM, Scholes D, Grothaus LC, Civic D and Curry SJ. "Women's Reports of Smoking Cessation Advice During Reproductive Health Visits and Subsequent Smoking Cessation." *American Journal of Managed Care,* 8(10): 837–844, 2002. Abstract avaiable online.

Smith SS, Jorenby DE, Fiore MC and Baker TB. "Smoking Cessation: What's New Since the AHCPR Guideline?" *Journal of Respiratory Diseases,* 19(5): 412–426, 1998.

Smith SS, Jorenby DE, Fiore MC, et al. "Strike While the Iron Is Hot: Can Stepped-Care Treatments Resurrect Relapsing Smokers?" *Journal of Consulting and Clinical Psychology*, 69(3): 429–439, 2001.

Smith SS, Jorenby DE, Leischow SJ, et al. "Targeting Smokers at Increased Risk for Relapse: Treating Women and Those with a History of Depression." *Nicotine & Tobacco Research*, 5(1): 99–109, 2003.

Smith SS, Beckley T and Fiore MC. "Health Care Provider Use of Guideline-Based Smoking Cessation Interventions: Results From the 2003 Wisconsin Tobacco Survey." *Wisconsin Medical Journal,* 104(4): 28–31, 2005.

Stead LF, Davis RM, Fiore MC, Hatsukami DK, Raw M and West R. "Effectiveness of Over-the-Counter Nicotine Replacement Therapy." *Journal of the American Medical Association*, 288(24): 3109–10, 2002.

Swan GE, McAfee T, Curry SJ, Jack LM, Javitz HS, Dacey S and Bergman K. "Effectiveness of Bupropion SR for Smoking Cessation in a Health Care Setting: A Randomized Trial." *Archives of Internal Medicine,* 163(19): 2337–44, 2003.

Swan GE, Jack LM, Curry SJ, Chorost M, Javitz HS, McAfee T and Dacey S. "Bupropion SR and Counseling for Smoking Cessation in Actual Practice: Predictors of Outcome." *Nicotine & Tobacco Research,* 5(6): 911–921, 2003.

Swan GE, Javitz H, Jack LM, Curry SJ and McAfee T. "Heterogeneity in 12-Month Outcome Among Female and Male Smokers." *Addiction,* 99(2): 237–250, 2004.

Swan GE, Valdes AM, Jack LM, Khroyan T, Ring HZ, Ton CC, Curry SJ and McAfee T. "Dopamine Receptor DRD2 Genotype and Smoking Cessation Outcome Following Treatment with Buproprion SR." *Pharmacogenetics Journal,* 5(1): 21–29, 2005.

Taylor CB and Curry SJ. "*Implementation* of Evidence-Based Tobacco Use Cessation Guidelines in Managed Care Organizations." *Annals of Behavioral Medicine,* 27(1): 13–21, 2004.

Wagener DK, Sporer AK, Simmerling M, Flome JL, An C and Curry SJ. "Human Subjects' Challenges in Youth-Focused Research: Perspectives and Practices of IRB Administrators." *Ethics and Behavior,* 14(4): 335–349, 2004.

Wetter DW, Fiore MC, Gritz ER, Lando HA, Stitzer ML, Hasselblad V and Baker TB. "The Agency for Health Care Policy and Research Smoking Cessation Clinical Practice Guideline: Findings and Implications for Psychologists." *American Psychology*, 53(6): 657–669, 1998.

Wetter DW, Kenford SL, Smith SS, Fiore MC, Jorenby DE and Baker TB. "Gender Differences in Smoking Cessation." *Journal of Consulting and Clinical Psychology*, 67(4): 555–562, 1999.

Winickoff JP, Berkowitz AB, Brooks K, et al. "State-of-the-Art Interventions for Office-Based Parental Tobacco Control." *Pediatrics*, 15(3): 750–760, 2005.

Woolf N, Burns ME, Bosworth TW and Fiore MC. "Purchasing Health Insurance Coverage for Smoking Cessation Treatment: Employers Describe the Most Influential Information in this Decision." *Nicotine Tobacco Research*, 8(6): 717–725, 2006.

Reports

Addressing Tobacco in Managed Care: Economic Evaluation of Cessation Strategies. Madison, WI: *Addressing Tobacco in Managed Care*, 1998.

Treating Tobacco Dependence in Wisconsin. Madison, WI: University of Wisconsin Medical School's Center for Tobacco Research and Intervention, 2000.

Treatment of Tobacco Dependence. Memphis, TN: Physicians Postgraduate Press, 2003.

Grantee Websites

www.athc.wisc.edu. The website provides an overview of this national research program, summaries of funded projects, research findings, a searchable database and links to other resources. Madison, WI: *Addressing Tobacco in Managed Care*, December 1998.

Sponsored Conferences

"Addressing Tobacco in Healthcare National Forum: Translating Health Services Research into Practice and Policy." February 15, 2006, Orlando, FL. Attended by 95 researchers, policy-makers, clinicians and others. Examples of organizations represented include National Cancer Institute, Centers for Disease Control and Prevention, and VA Connecticut Healthcare System. Proceedings available online.

"Addressing Tobacco in Healthcare National Forum: Innovations in e-Health and e-Technology for Health Services Research." February 21, 2007, Austin, TX. Attended by 80 researchers, policymakers, clinicians and others. Examples of organizations represented include the National Cancer Institute, the Centers for Disease Control and Prevention, and the MD Anderson Cancer Center. Proceedings available online.

"Addressing Tobacco in Healthcare Research Network Think Tank." March 19, 2008, Washington. Attended by 27 researchers, policymakers, funders, and employer representatives. Examples of institutions represented include the National Cancer Institute, the Centers for Disease Control and Prevention, Blue Cross Blue Shield of

Minnesota, the American Legacy Foundation, and Providence Health System. Proceedings available online.

Presentations and Testimony

Susan J. Curry, "Building Effective Strategies to Decrease Tobacco Use in a Health Maintenance Organization: Group Health Cooperative of Puget Sound," at Addressing Tobacco in Managed Care: Partnering for Success, Arlington, VA, February 3–4, 1998. Proceedings available in Addressing Tobacco in Managed Care: Proceedings of a national conference. *Tobacco Control,* 7(Suppl.), 1998.

Susan J. Curry, "Health Systems Innovations for Tobacco Control: Application to Other Behavioral Risk Factors." at the Addressing Tobacco in Healthcare National Forum: Translating Health Services Research into Practice and Policy, pre-meeting conference to the 12th Annual Meeting of the Society for Research on Nicotine and Tobacco, Orlando, FL, February 2006. Proceedings available online.

Michael C. Fiore, "A Clinical and System's Perspective on Tobacco Control: The AHCPR Guideline," at *Addressing Tobacco in Managed Care*: Partnering for Success, Arlington, VA, February 3–4, 1998. Proceedings available in "Addressing Tobacco in Managed Care: Proceedings of a National Conference." *Tobacco Control,* 7(Suppl.), 1998.

Michael C. Fiore. "Systems Change Research for Tobacco Control: Opportunities to Apply Lessons Learned," at Addressing Tobacco in Healthcare National Forum: Translating Health Services Research into Practice and Policy, pre-meeting conference to the 12th Annual Meeting of the Society for Research on Nicotine and Tobacco, Orlando, FL, February 2006. Proceedings available online.

Michael C. Fiore. "Health Systems Changes to Promote the Treatment of Tobacco Dependence," at the National Institutes of Health State of the Science Conference, Tobacco Use: Prevention, Cessation and Control, June 12–14, 2006, Bethesda, MD. Information about the conference available online.

National Technical Assistance Office

Articles

McPhillips-Tangum C, Bocchino C, Carreon R, Erceg C and Rehm B. "*Addressing Tobacco in Managed Care*: Results of the 2002 Survey" *Preventing Chronic Disease,* 1(4), 2004.

McPhillips-Tangum C, Cahill A, Bocchino C and Cutler CM. "*Addressing Tobacco in Managed Care*: Results of the 2000 Survey." *Preventive Medicine in Managed Care,* 3(3): 85–94, 2002.

"First Annual *Addressing Tobacco in Managed Care* Conference Proceedings and 1997–98 ATMC Survey Results." *Tobacco Control International Journal,* supplement, December 1998.

Reports

Ronald Davis and Abby Rosenthal. *Addressing Tobacco in Managed Care National Technical Assistance Reference Guide.* Detroit: Health Alliance Plan, 1999. Also appears online.

Survey Instruments

"Addressing Tobacco in Managed Care: 1997 Survey of Health Plans," America's Health Insurance Plans, 1997.

"Addressing Tobacco in Managed Care: 2000 Survey of Health Plans," America's Health Insurance Plans, fielded September–December 2000.

"Addressing Tobacco in Managed Care: 2002 Survey of Health Plans," America's Health Insurance Plans, 2002.

"Addressing Tobacco in Managed Care: 2003 Survey of Health Plans," America's Health Insurance Plans, 2003.

Grantee Websites

www.ahip.org includes information on the activities of the national technical assistance office, including the four health plan surveys, the return-on-investment calculator and the managed care achievements in tobacco-control awards. Washington: America's Health Insurance Plans, Winter 1998.

www.businesscaseroi.org features a user-friendly Web-based return-on-investment calculator that estimates the impact of smoking cessation interventions for one to five years. Washington: America's Health Insurance Plans, 2001.