

## **Tobacco and the Dental Office: Encouraging Your Patients to Quit**

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This program's aims were to 1) stimulate tobacco cessation behaviors by managed care dentists participating in the Aetna Dental Maintenance Organization (DMO®), 2) incorporate systems-based strategies including tobacco user identification systems, education, and financial incentives, 3) to determine whether a CD-ROM based educational intervention and supportive electronic detailing could be used to promote increased tobacco cessation activities within dental practices, and 4) to evaluate the cost-effectiveness of the intervention. General dentists who met specific technological criteria, had an active e-mail account, and  $\geq 200$  adult patients were eligible to participate in this study. One hundred and eighty-four dentists, located in 29 States were recruited and enrolled in a randomized clinical trial. Those who agreed to participate were randomly assigned to either the intervention (CD-ROM, electronic detailing, payment for tobacco cessation) or control (practice as usual) conditions. Tobacco cessation knowledge, attitudes, and behaviors of dentists were assessed using a mailed survey at baseline. At baseline self-reported tobacco intervention related behaviors were low, with 28% of dentists reporting that they asked their patients about tobacco or recorded tobacco use in their patients' charts frequently ( $>41\%$  of the time). One year after baseline a survey was mailed to intervention and control dentists. At the one year follow-up a significant difference was observed for time spent counseling between intervention and control groups ( $p < .05$ ). The Ask (ask about tobacco use, recording of tobacco use) variable was marginally significant ( $p < .10$ ). Patients reported a significant difference in discussion of use of patch and gum ( $p < .05$ ) and a decrease in the use of cigarettes ( $p < .01$ ).

Information technologies (CD-ROM, electronic detailing) offer promise for dissemination of tobacco cessation guidelines into practice. To increase compliance additional reinforcement is indicated.

## **Provider Feedback Improves Delivery of 5A's Tobacco Cessation**

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Providence Health System

**Background:** Routine assistance with cessation for tobacco-users in primary care settings has not been widely adopted, despite clear evidence of effectiveness. The electronic health record (EMR) may be an effective tool to help clinicians address tobacco-use more consistently.

**Objective:** To evaluate the impact of EMR generated provider practice pattern feedback on rates of addressing tobacco use in primary care.

**Design:** Cluster randomized clinical trial (feedback vs. no-feedback).

**Setting:** 19 primary care clinics in Oregon that utilized a common EMR.

**Intervention:** Intervention clinics received provider-specific, monthly feedback reports from EMR data. The reports displayed provider performance of rates on Asking, Advising, Assessing, and Assisting with tobacco cessation, compared to both clinic average and an Achievable Benchmark of Care.

**Participants:** Self-identified smokers (n=15,615) in 19 primary care clinics.

**Main Outcome:** Connection with a state-level tobacco telephone quit line.

**Results:** During 12 months of follow up, EMR documented rates of Asking, Advising, Assessing and Assisting were significantly improved in the intervention clinics compared with the control clinics. The number of referrals to the Quit-Line was similar (3.9% versus 3.6% of smokers in the intervention and control clinics, respectively, p=ns). After adjusting for important baseline differences between the clinics (the presence of a clinic champion and case mix) the adjusted odds ratio for feedback was 1.53 (95% CI 1.05 to 2.23, p=0.026).

**Conclusions:** Connecting private physician's offices to a state-level quit line is feasible and well accepted. EMR generated provider feedback improves documentation of delivery of the 5 A's of tobacco cessation may have a modest effect of referral rates to a state-level quit line.

## **Designing a Provider Incentive System to Increase Adherence to Maternity Tobacco Cessation Guidelines**

Charles J. Bentz MD, FACP, Nancy Davis, MPH, Rowena Rosenblum  
Providence Health System

**Background:** The reality of busy clinic schedules, decreasing allotment of time for office visits, and financial pressures make it difficult for providers to actively and consistently engage in cessation efforts (Warner 1998, Magnus 1999). Educating providers about the need for tobacco cessation counseling is often insufficient to produce the desired behavior change. Linking reimbursement to performance has been proven to be a successful strategy to increase other preventive health services such as immunization levels for the elderly (Kouides 1993) (Bennett 1994).

**Objective:** The primary objective of this one year RWJF funded planning grant was to develop a financial reimbursement system that would incentivize obstetrical providers to consistently deliver the 5A's to all pregnant smokers during each prenatal visit. A secondary objective was to develop a comprehensive package of implementation support materials, to aid managed care organizations (MCOs) in their adoption of the maternity reimbursement system.

**Methods:** Providence Health System in Portland, Oregon, is a vertically integrated health system that includes the Providence Health Plans, secondary and tertiary acute care hospitals, long-term care facilities, residency clinics, and research facilities. In order to develop a financial reimbursement system, the teams worked to: identify key MCO stakeholders, understand MCO global payments for obstetrical services, conduct cost benefit financial modeling, and present findings to MCO executive team.

**Conclusions:** Reimbursement for the provision of tobacco cessation assistance makes sense. Cost modeling demonstrates that reimbursement for tobacco cessation assistance in maternity populations is cost effective. Purchasers and payers can easily implement this simple reimbursement scheme within their organizations.

## **The Use of Tracking Codes to Monitor Tobacco Cessation in an Individual Practice Association (IPA) Model Health Maintenance Organization (HMO)**

Charles J. Bentz MD, FACP, Bruce Bayley, PhD, Nancy Davis, Dan Stevens, Carol Wintermute  
Providence Health System

**Background:** Helping smokers to quit is the most important action that health care providers can take to improve the length and quality of their patient's lives (1). Unfortunately, most physician offices lack the ability to monitor the delivery of any preventive health services, including tobacco cessation, diabetic care and flu shots for the elderly. Patients would benefit if physicians had access to automated tracking systems to help ensure that preventive health care is addressed at each patient visit.

**Objective:** This project sought to promote delivery of preventive health services by piloting the use of an innovative prevention tracking method that utilizes billing systems currently in place in every doctor's office and MCO.

**Methods:** During a one year RWJF planning grant, a set of CPT-like codes were developed at Providence Health Plan to monitor delivery of preventive health services. The basic infrastructure needed for using tracking (TR) codes was developed and implemented in 2 different primary care settings: a primary care medical office using an electronic medical record (EMR) and a multi-specialty office using a paper based medical record.

**Conclusions:** A system to record, submit, and report on preventive health services using Tracking Codes has been developed and successfully implemented in our clinical setting. These codes have the potential to allow for more accurate analysis and reporting on preventive health care, including tobacco cessation. These codes also allow for the potential to avoid the cost and hassle of chart review. Further testing in other clinical sites is needed before Tracking Codes will be widely accepted.

## **Proactive telephone counseling for smokers using medications to quit-1 year outcomes**

Raymond G. Boyle, Leif I. Solberg, Michael Maciosek, Stephen Asche, Jackie Boucher, Nico Pronk

HealthPartners Research Foundation

In this presentation we are reporting the results of a randomized trial through twelve months of follow-up. Our study is a population-based trial of health plan member smokers who have filled prescriptions for medications to quit smoking. We tested the hypothesis that proactive telephone counseling would increase quit attempts and actual quitting among smokers filling a prescription for smoking cessation medication compared to a control group receiving no such offer of support. If proactive outreach to this population is effective, it could be a cost-effective strategy to leverage health care dollars that are already being spent on smoking cessation medication. By using a population-based approach and including smokers using Zyban for smoking cessation we are extending the current knowledge base of proactive telephone counseling.

## Does Insurance Coverage for Drug Therapy Affect Smoking Cessation?

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**Context:** Whether insurance coverage for smoking cessation medicines increases quit rates is uncertain. In 1998, two major Minnesota health plans simultaneously initiated coverage for smoking cessation pharmacotherapies.

**Objective:** To evaluate the overall effect of this new pharmacy benefit on the use of pharmacotherapy, quit attempts, and quit smoking rates.

**Design, Setting, and Subjects:** Non-randomized controlled trial with outcomes based on a sample of member self-report with before and after surveys of those receiving and not receiving the new benefit. These surveys gathered information on demographics, smoking behavior, interest in quitting smoking, use of quit aids, and quit attempts. Multi-level logistic regression models were applied to test for the effect of the benefit, controlling for any covariate imbalance between treatment and control arms.

**Results:** A total of 2327 smokers completed a baseline and follow-up survey 1 year after the benefit was in place. Overall, smokers with the benefit (n=1560) reported increased use of bupropion (23.8% vs 18.5%,  $p < 0.004$ ) but not nicotine replacement therapy (NRT) ( $p = 0.40$ ) compared to those lacking the benefit (n=767). The benefit was not associated with any significant effect on attempts to quit smoking or actual quitting (14.1% vs 13.4%,  $p = 0.66$ ), except among the 30% who reported knowledge of the benefit (17.1% vs 12.8%,  $p < 0.02$ ).

**Conclusion:** The presence of a smoking cessation pharmacy benefit as communicated in this study increased the use of bupropion but not NRT, and it did not result in higher rates of quitting smoking. Further studies are needed to test whether greater efforts to make smokers aware of insurance benefits or to add other types of cessation support increase smoking cessation.

## **Increasing the Utilization of Wisconsin Medicaid Smoking Cessation Benefits: One Thing That Didn't Work**

Richard Carr, MD, MS<sup>1</sup> and Bruce Christiansen, PhD<sup>2</sup>

Wisconsin Medicaid will pay for both prescribed pharmacotherapy and tobacco cessation counseling. An earlier chart audit established a high smoking prevalence but poor use of available benefits. An intervention was designed to increase the utilization of benefits. Specifically, smokers new to managed care were sent a letter signed by both the Medicaid Chief Medical Officer and Medical Director of their chosen HMO. This letter underscored the need for treatment, available benefits and contact information both for the HMO cessation program and other resources such as the Wisconsin Tobacco Quit Line. The impact of the intervention was measured using encounter data records for the diagnosis of tobacco use and the prescription of pharmacotherapy and by a survey to recipients in a multiple baseline evaluation design. The results indicated absolutely no impact of the intervention on any of the outcome measurements. This suggests that different and probably more resource-intensive interventions are necessary to increase the utilization of smoking cessation benefits by Medicaid recipients.

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## **Addressing Parental Smoking at Pediatric Visits: ATMC Research and Beyond**

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University of Pittsburgh

This poster reviews the outcomes of and lessons learned from the 2002-03 ATMC-funded project, *Addressing Parental Smoking at Pediatric Visits*, as well as the initiatives that were generated as a result of the original project. The original project refined exit interview and chart review data collection methods for use in community pediatric practice settings, assessed the rates of pediatricians' assessment of parental smoking status, and evaluated the parents' attitudes about pediatricians addressing their smoking status in the context of a pediatric visit. Results demonstrated that: 1) a simple paper-and-pencil survey provided similar practice smoking rate data (but not 5A rates) compared to exit interviews; 2) pediatricians ask about parental smoking at low rates; and 3) nearly all smoking and nonsmoking parents do not mind being asked about smoking status by their child's pediatrician.

The poster also describes several initiatives that have resulted from the data and lessons derived from the 2002-03 ATMC planning project: 1) the Clean Air PLUS program that delivers and evaluates an evidence-based training in tobacco control practices in pediatric and ob/gyn primary care residency programs and clinics; 2) the CO Monitoring as a Vital Sign project at a large women's hospital; 3) a comprehensive tobacco control design for the largest nongovernmental employer in PA; and 4) methodological support for an RWJF-funded pediatric obesity intervention in a primary care setting.

## **Improving Clinic- and Neighborhood-Based Smoking Cessation Services within Federally Qualified Health Centers Serving Low-Income, Minority Neighborhoods**

Edwin Fisher, Ph.D., Judy Musick, M.B.A., Catina Scott, Ph.D., J. Philip Miller  
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Richard Gram, M.A., Veronica Richardson, B.S.N., R.N., Jane Clark, M.P.H., C.H.E.S., Vani Pachalla, M.D., Grace Hill Neighborhood Health Centers

Within Federally Qualified Health Centers serving low-income, African American audiences, participatory approaches to system changes were organized through multidisciplinary committees that (a) drew on evidence based guidelines, (a) guided system changes including the requirement of documenting smoking status and readiness to quit in encounter forms, (b) tested and refined practice improvements prior to their general adoption, and (d) guided development of neighborhood based resources and supports for smoking cessation that were linked to clinic-based services. Documentation of smoking status/readiness to quit increased from 2% of encounter forms in the first 3 months to 94.3% in the last three months of the 24-month program. This remained over 90% throughout the following year. Exit interviews also indicated increased key clinic-based services, including “explained importance of quitting” (to 78% and 82% of interview respondents in the two Intervention Clinics in Year 2), “tell you that you should quit” (to 80% in each), “tell you about nicotine gum ... or other medications” (to 69% and 58%), “offer to help you quit” (to 61% and 64%), and “tell you about programs or help in your neighborhood” (to 51% and 56%). These exceeded those in one Comparison clinic and equaled those in a second that had also launched a smoking cessation initiative. From exit interviews, improvements in neighborhood-resources and support (e.g., people and activities that encourage nonsmoking) also exceeded those in Comparison clinics. All clinic patients who were staged as in preparation, action or maintenance for quitting were entered into a tracking database that monitored individualized smoking cessation services. After controlling for total amount of time from first to last entry of individual data in the tracking system, number of face-to-face contacts ( $p = .001$ ,  $\beta = .159$ ) but not number of phone contacts predicted progression toward quitting or maintained abstinence. Thus, (a) participatory approaches to system changes and quality improvement can (b) enhance clinic-and neighborhood-based smoking cessation services that (c) help individuals make progress toward quitting (d) within health centers serving low-income, minority populations.

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## **Smoking Cessation in Pregnancy: Failure of an HMO Pilot Project to Improve Guideline Implementation**

*LM Latts, NM Salas, AV Prochazka, DA Young, GE Latimer*

**Objective:** Smoking in pregnancy continues to be a public health problem despite the known risks to the fetus. This study was designed to determine whether a managed care organization could encourage obstetric providers to implement the AHCPR smoking cessation guidelines in their offices.

**Methods:** Clinical staff from participating offices were trained in smoking cessation techniques, including the AHCPR recommendations of Ask, Advise, and Assist. Reimbursement up to \$150 was offered to provide this counseling. A telephone survey was conducted of all HMO women giving birth one year pre and one year post-intervention. The main outcome measures tested included (1) Differences between smoking cessation counseling services offered by providers in the pre and post-intervention groups, as measured by telephone survey and chart review to determine documentation of Ask/Advise/Assist; (2) Survey of participating providers to determine implementation successes and failures.

**Results:** Eighteen provider groups agreed to participate in the project, representing 27 office sites and 80 physicians. The telephone survey did not show improvement in smoking cessation counseling from the pre to the post intervention group. The chart review showed identification of smoking status improved from 90% to 96% after the intervention ( $p=0.03$ ). Documentation of "advice to quit" worsened from baseline of 62% to 24% ( $p=0.03$ ). Four claims for smoking cessation counseling were received at the HMO.

**Conclusions:** This pilot project implemented one of the smoking cessation guideline recommendations of the ACHPR (now AHRQ) by reimbursing for smoking cessation counseling for pregnant smokers. Additionally, we provided training for providers. Survey of the office staff revealed that failure of the pilot project was most likely due to the inability of provider offices to change their internal processes and systems for one payer. Other external factors that may have contributed to the results include a significant drop in HMO membership and health plan problems with claims processing.

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## **Exploring How to Help Physicians Connect Smoking Patients to Cessation Resources**

Theodore W. Marcy, George Michel, Scott Connolly, Joan Skelly, Richard Shiffman, Brian Flynn

**Background:** In 1999, we tested a fax system that allowed physicians to refer smokers to a proactive smoking cessation telephone resource (ATMC Grant ID 035850). While feasible, it had only modest effects on improving physician adherence to the AHCPR guideline. Physicians complained that it was cumbersome, and that recommendations from the resource were not available during the patient visit. As an alternative, we are developing a computer-mediated clinical decision support system (CDSS) for tobacco use counseling.

**Methods:** We surveyed a random sample of Vermont physicians to determine use of information technology, and preferences for computer platforms and for different information management services.

**Results:** Most Vermont physicians use computers during a patient visit, and prefer handheld PDAs if they have used different computer platforms. The highest rated information management services were: 1) tailored handouts; 2) patient specific recommendations; 3) chart documentation; and 4) access to administrative information.

**Conclusions:** Based on these results, we designed the CDSS for a PDA with a wireless connection to a server and printer. An intake person enters the smoking status and vital signs on a computer that transmits this information to the physician's PDA so that there is an active reminder to do tobacco use counseling. We are now performing iterative design-test-redesign cycles of the prototype with usability testing with intended users, and validity testing with experts. This has resulted in changes in the second CDSS prototype, and is intended to produce a CDSS that is more apt to be incorporated into a physician's workflow.

## **Capturing Tobacco Status Using an Automated Billing Registry**

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Free & Clear, Inc. <sup>1</sup>; Group Health Cooperative <sup>2</sup>

In 1995 Group Health Cooperative initiated a plan to electronically document patients' smoking status and providers' intervention with smokers during primary care visits by capturing these indices on an automated treatment record form (TRF) for billing. In 1998, use of this system was less than ideal. Tobacco status was recorded on the TRF in only 7.5% of primary care visits. Beginning in 1999, with support from the Robert Wood Johnson Foundation, Group Health implemented senior leadership incentives and provider performance feedback to promote compliance with the TRF documentation system. By the end of 2000, tobacco use status was recorded on the TRF in 86% of primary care visits. Over the 1999-2000 period, tobacco status was captured in an average of 82% of all primary care visits, a significant increase from 1998 levels ( $p < .001$ ). Documented advice to quit smoking initially declined following implementation of the promotional strategies, but by the end of 2000 had returned to pre-intervention 1998 levels (documented advice to quit in 64% of monthly visits). This work demonstrated the effectiveness of using senior leadership incentives and provider feedback to enhance compliance with the organization's priorities on tobacco documentation and laid the groundwork for creating an electronic registry of tobacco users.

\*Dr. McAfee and Ms. Grossman were at Group Health Cooperative when this work was conducted.

## **An Integrated Computer-Based System For Treating Nicotine Dependence**

Anna M. McDaniel, DNS RN, Indiana University\*; Philip L. Benson, MHA, Wishard Health Services; and G.H. Roesener, RPh, TeleHealth Systems

The purpose of this study was to develop, implement, and evaluate an integrated computer-based system for tobacco user identification and smoking cessation intervention for primary care patients in a medically-indigent, managed care population. Interactive voice response (IVR) technology was used to screen for tobacco use prior to primary care visits to two inner-city clinics. The tobacco-use data was transferred to the electronic patient record system, which generated reminders to primary care providers for smoking cessation intervention. The IVR system placed 2,039 valid calls, with 1,117 (55%) patients completing the automated tobacco-use question set. Current smokers were identified in 421 (39%) of the calls. Computer-generated reminders that incorporated tailored information about the patient's stage of change and USPHS treatment guidelines were placed on the encounter forms of all smokers. The primary outcome was patient report of primary care provider smoking cessation advice. In a post-visit interview, 58 participants (48% of identified smokers) reported that they discussed smoking cessation with their providers. Seventy-one percent of the patients participating agreed that use of IVR to obtain information was a "good way for patients to give information about their health to doctors". Automated capture of patient-reported data via IVR technology is a potentially useful strategy for screening for tobacco use in primary care. However, many challenges to systematic smoking cessation intervention in the primary care setting remain.

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## **Health Insurance Plans Address Tobacco Control: 1997- Present *Strategies-Innovation-Opportunities***

Bob Rehm, MBA, Deputy Director, Public Health Strategies  
America's Health Insurance Plans (AHIP)

AHIP has led the National Technical Assistance Office (NTAO) as part of the **Addressing Tobacco in Managed Care** (ATMC) program for the past eight years. The NTAO received multi-year support from The Robert Wood Johnson Foundation (RWJF) for a series of AHIP initiatives within the ATMC framework. Key activities were co-funded by the Centers for Disease Control and Prevention. The NTAO has advanced the integration of tobacco cessation into health benefit design and ongoing programs. Several key tools and resources offered to health plans both increased and advanced the number and quality of tobacco control initiatives. These included the ATMC Resource Guide for Health Plans striving to develop tobacco control programs; the Managed Care Achievements in Tobacco Control Awards Program (1998-2003); the Public Health Leadership Award Program– Addressing Tobacco Control (2004) honoring leadership and exemplary initiatives among member companies; new tobacco control strategies and partnerships shared through annual ATMC conferences (1998-2004); and development of original research on the business case for smoking cessation that led to the web-based ROI calculator and the [www.businesscaseroi.org](http://www.businesscaseroi.org) website. A key component of ATMC and NTAO activities has been the measurement of health plan tobacco control practices and policies through national surveys in 1997, 2000, 2002 and 2003. The results of the ATMC surveys reflect outstanding accomplishments, respected partnerships, effective advocacy, and opportunities for health insurance plans to continue advancing tobacco control efforts. Many of the lessons learned from ATMC can be applied to other priority health areas where behavioral change is a key component.

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## **PROVIDER FEEDBACK & FINANCIAL INCENTIVES TO IMPROVE ADHERENCE TO TOBACCO TREATMENT GUIDELINES IN PRIMARY CARE: A CONTROLLED TRIAL**

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Massachusetts General Hospital (MGH) and Brigham & Women's Hospital (BWH), Harvard Medical School and Partners HealthCare, Inc.

To improve primary care provider (PCP)'s adherence with tobacco treatment guidelines, we tested two system-level interventions--provider feedback and provider financial incentives--in 8 primary care practices affiliated with two Boston hospitals (BWH and MGH), using a 2 x 2 study design. Practices were randomized to receive usual care or a comprehensive feedback intervention consisting of (1) clinical feedback to PCPs about the outcome of referrals to a tobacco treatment service (TTS) and (2) quarterly performance feedback to PCPs about their rate of documenting and referring to the TTS. One hospital offered a fee-for-service reimbursement to providers for documenting counseling (\$5/patient) while the other did not. Outcomes were assessed by reviewing electronic medical records and conducting surveys of patients and providers at baseline and at 1 and 2 year follow-up.

The feedback and financial incentive interventions each significantly increased the rate of referrals to the TTS program over baseline values. Feedback had a strong effect in the presence of a financial incentive and only a marginal effect in the absence of the incentive. Providers' self-reported rates of referring to the TTS program also increased with each intervention. We conclude that both feedback and a financial reimbursement can improve rates of performing a targeted behavior (documentation and referral). Whether the interventions generalize to improve PCPs' adherence to the full range of 5A steps is being addressed in ongoing analyses of patient surveys and electronic medical records. System-level interventions hold promise for improving the delivery of effective tobacco interventions in primary care settings.

## **Provider Feedback & Financial Incentives to Improve Adherence to Tobacco Treatment Guidelines in Primary Care: A Controlled Trial**

Nancy A. Rigotti, MD, Louise I. Schneider, MD, Nicola Majchrzak, MPH, MSW, Susan Regan, PhD, Caroline Silverman, MSc, Molly Conroy, MD, MPH, Michele Burgener, MPH, Elyse Park, PhD, Yuchiao Chang, PhD.

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## **The impact of financial incentives and a patient registry on preventive care quality: increasing provider adherence to evidence-based smoking cessation practice guidelines**

Joachim Roski, PhD, MPH; Robert Jeddelloh, MD; Larry An, MD; Harry Lando, PhD; Peter Hannan, M.Stat.; Carmen Hall, MS; and Shu-Hong Zhu, PhD

**Background.** This study tested the effects of two organizational support processes, the provision of financial incentives for superior clinical performance and the availability of a patient (smoker) registry and proactive telephone support system for smoking cessation, on provider adherence to accepted practice guidelines and associated patient outcomes.

**Methods.** Forty clinics of a large multispecialty medical group practice providing primary care services were randomly allocated to study conditions. Fifteen clinics each were assigned to the experimental conditions “control” (distribution of printed versions of smoking cessation guidelines) and “incentive” (financial incentive pay-out for reaching preset clinical performance targets). Ten clinics were randomized to receive financial incentives combined with access to a centralized patient registry and intervention system (“registry”). Main outcome measures were adherence to smoking cessation clinical practice guidelines and patients’ smoking cessation behaviors.

**Results.** Patients’ tobacco use status was statistically significant ( $P < 0.01$ ) more frequently identified in clinics with the opportunity for incentives and access to a registry than in clinics in the control condition. Patients visiting registry clinics accessed counseling programs statistically significantly more often ( $P < 0.001$ ) than patients receiving care in the control condition. Other endpoints did not statistically significantly differ between the experimental conditions.

**Conclusions.** The impact of financial incentives and a patient registry/intervention system in improving smoking cessation clinical practices and patient behaviors were mixed. Additional research is needed to identify conditions under which such organizational support processes result in significant health care quality improvement and warrant the investment.

**Citation.** Roski J, Jeddelloh R, An L, Lando H, Hannan P, Hall C, Zhu SH. The impact of financial incentives and a patient registry on preventive care quality: increasing provider adherence to evidence-based smoking cessation practice guidelines\*. *Prev Med* 2003; 36(3): 291-9.

## **Promoting Tobacco Cessation in Dental Managed Care: An Overlooked Opportunity**

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**Objective:** The goal of this study was to assess the efficacy of academic detailing for increasing tobacco-cessation behaviors by dentists. **Methods:** A sampling frame of dentists practicing in four northeastern states, who participated in a prominent dental managed-care organization plan, was obtained. Of 570 potential subjects, 72 were recruited and enrolled in a randomized clinical trial. Subjects were initially contacted with a letter and an enclosed questionnaire explaining the nature of the project and its rationale. Dentists were informed that return of a completed questionnaire would be considered as consent to participate. Those who agreed to participate were randomly assigned to either the intervention (academic detailing) or control (practice as usual) condition. The intervention involved an initial face-to-face visit by a dentist, followed by three additional reinforcement visits by a dental hygienist. Twelve months after baseline, data were once again collected from all participants. Differences in tobacco-cessation behaviors were measured and assessed using descriptive and chi-square statistics. **Results:** Dentists exposed to the intervention were more likely than those in the control condition to discuss setting a specific quit date ( $p < .045$ ), discuss specific strategies for quitting ( $p < .049$ ), provide written take-home materials ( $p < .001$ ), provide advice about nicotine gum ( $p < .033$ ), and refer patients to cessation counseling clinics ( $p < .037$ ). **Conclusion:** Although labor-intensive, academic detailing is a feasible technique for encouraging the incorporation of tobacco-cessation behaviors into general practitioner routines.

## **Academic Profiling to Increase Office-based Tobacco Intervention**

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### Objective

**The primary aim of the study was to evaluate the effect of office education and data feedback on tobacco-related practice performance and quitting behavior of smoking patients.**

### Methods

The study was a randomized trial with 50 Maine primary care practices having a combined patient panel of at least 200 Medicaid and privately insured (single HMO) adult patients. 25 practices received two educational office-based sessions, with comparative data feedback (academic profiling) during the first session. Profiling data included frequency of tobacco documentation, claims for nicotine replacement or bupropion, and claims for tobacco ICD-9 diagnosis 305.1 (examined 1 year before the intervention, in adults, adjusted for age/gender). Control practices received information and data by mail. A sample of patients of receiving care from study practices were surveyed by telephone at baseline and follow-up (12-18 mos). Pre-post provider surveys measured self-report change in interventions and attitudes about the data feedback.

### Results

Tobacco-related performance measures varied widely, both within and between practices. Prior to the intervention, smokers across the study reported relatively frequent provider advice to quit (77.7%) and assistance with quitting (50%). Among smokers having any office visits 12 months after the intervention, those seen by an experimental practice reported a higher degree of tobacco intervention; more HMO patients (no tobacco medication coverage) reported receiving counseling (28% vs. 16% in control practices;  $p=0.01$ ), smokers who were Medicaid beneficiaries (and have NRT and bupropion coverage) reported greater bupropion use for quitting (23% vs. 14%;  $p=0.005$ ). More experimental providers reported improvements in identifying tobacco use (59% vs. 34% in control practices;  $\chi^2 p=0.001$ ) and greater frequency of “almost always” assessing pros, cons and barriers to quitting with smoking patients (37% vs. 13%;  $\chi^2 p<0.001$ ). Providers who attended any office session, compared to those who did not attend, were more likely to rate the data feedback as useful.

### Summary

Baseline practice- and patient-level measures showed that many providers were helping tobacco users. Preliminary analyses suggest an intervention effect for this limited face-to-face office-based educational session with performance feedback, compared to mailing information to providers. Further follow-up analyses on provider profiling measures and patient behavior changes are ongoing. Insurance coverage for tobacco treatment medications appears to play a role in practice performance for delivering tobacco interventions.

ATMC (RWJF) funded development and piloting of the intervention. AHRQ funded the trial as part of the *Translating Research into Practice* Initiative.

## **The Impact of Feedback on Physician Performance in Smoking Cessation**

William Wadland, MD, MS, Jodi Holtrop, PhD, David Weismantel, MD, MS, Huda Fadel, PhD, and Jeff Powell, MS of Michigan State University and Blue Cross Blue Shield of Michigan.

**Purpose:** To evaluate the effectiveness of comparative feedback on physician performance in practice-based efforts and referrals to quitline services for smoking cessation.

**Methods and Study Design:** A randomized clinical trial compared the impact of six quarterly (18 months) feedback reports vs. general reminders on physician performance of the 5 A's (Ask, Advise, Assess, Assist, Arrange) and referrals to quitline services. An Achievable Benchmark of Care (ABC) simple report card was developed. Pre-and post-study patient exit surveys were conducted. Comparable quit rates were estimated.

**Results:** 87 primary care practices in Michigan and 308 clinicians (171 FP, 88 IM, 49 OB) participated. After 18 months, the number of referrals (480 vs. 220,  $p < .0001$ ) was significantly greater in the feedback vs. control practices. The referral response was greater across all quarters for feedback vs. control groups. Fax (84%,  $n=591$ ) exceeded self-phone (16%,  $n=109$ ) referrals. Self vs. fax referrals resulted in greater likelihood (77% vs. 42%,  $p < .0001$ ) of enrollment. Practice characteristics related to greater referrals were: staff model HMO, > 50% of patients covered by sponsoring health plan, and use of mid level providers. Exit surveys showed significant pre to post changes (34% to 39%,  $p < .02$ ) for "Asking" smoking status in feedback but not control practices.

**Conclusion:** Using estimated quit rates based on the level of utilized services by referred smokers, there were 65 vs. 36 estimated quits in the feedback vs. control groups, or 1.8 estimated greater likelihood of quitting in referred smokers whose physicians received feedback.

## **Improving Tobacco Dependence Medication Use in a Medicaid Managed Care Organization: a Practical Systems-Level Approach**

Jonathan P. Winickoff, MD, MPH, James H. Glauber, MD, MPH, James M. Perrin, MD, Beth Bock, PhD, Nancy A. Rigotti, MD

This poster describes a program designed to increase the use of smoking cessation services among enrollees of a Medicaid managed care organization (MCO) in Boston.

The program consisted of (1) screening for smoking status and willingness to quit with help among new enrollees; (2) hiring a smoking coordinator to conduct brief counseling, discuss NRT, and request prescription from the primary care physician; (3) disseminating information about availability of free NRT among members through mailings and web page; (4) summarizing for the contracted providers each of the clinical programs available to members, including the smoking cessation program; (5) dedicating a referral phone number for providers. The cost to implement this program was remarkably modest.

After the implementation of the initiative the prescription of NRT, already available for free in previous years, increased 48% ( $p < .01$ ).

This study illustrated that it is possible to improve medication use and access to evidence-based smoking cessation treatments in a Medicaid managed care population. It was published in *Journal of Clinical Outcomes Management* in 2003.  
(Citation: Winickoff et al. *JCOM*, 10 (10): 535-9, 2003)