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# Health System Changes to Facilitate the Delivery of Tobacco-Dependence Treatment

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**Abstract:** In 1996, the Agency for Health Care Policy and Research (AHCPR, now AHRQ, the Agency for Healthcare Research and Quality) released the first federal clinical practice guideline for smoking cessation that was updated in 2000 by the United States Public Health Service (USPHS). The innovative guideline identified six evidence-based strategies for healthcare systems to facilitate the institutionalization of tobacco dependence treatment so that smokers received evidence-based treatments as a routine part of health care.

A growing body of evidence demonstrates the importance of systems approaches. This paper discusses the evidence for the systems-level strategies outlined in the guidelines, as well as future directions and needed systems-level research. Promising strategies include: (1) clinical systems organized to cue assessment of smoking status and assistance to smokers, (2) leveraging clinical information systems to provide performance feedback, (3) providing full insurance coverage for evidence-based cessation treatment, and (4) including tobacco-cessation treatment as a measured standard of care by national accreditation organizations. These systems-level approaches increase the likelihood that tobacco use is addressed systematically in the healthcare delivery system. Further research to optimize the effectiveness and adoption of these strategies will help ensure that patients receive evidence-based interventions that foster tobacco-use cessation.

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## Introduction

In 1996, the Agency for Health Care Policy and Research (AHCPR, now AHRQ, the Agency for Healthcare Research and Quality) released the first federal clinical practice guideline for smoking cessation.<sup>1</sup> Both the 1996 AHCPR guideline and its update published by the United States Public Health Service (USPHS) in 2000 were innovative in that they identified six evidence-based strategies for healthcare systems to facilitate the institutionalization of tobacco-dependence treatment.

Systems-level changes are policies and practices designed to integrate the identification of smokers and the subsequent offering and receipt of evidence-based cessation treatments into the routine delivery of health care. Systems-level changes can be direct, such as regular training of clinicians in brief cessation interventions, or indirect, such as removing cost barriers to treatment to increase use of those treatments. These strategies,<sup>2</sup> depicted in Table 1, are:

**Implementing a tobacco-user identification system in every clinic.** The goal of this strategy is to ensure that all patients are asked about tobacco use as part of every clinical encounter. Such prompts have been shown to increase the rate at which clinicians intervene with tobacco-using patients.<sup>3–6</sup> Such prompts also encourage clinicians to approach tobacco use as a chronic disease, requiring ongoing care similar to that offered to patients identified with hypertension or hyperlipidemia.

**Providing education, resources, and feedback to promote provider intervention.** The intent of this effort is to ensure that clinicians have the information and tools needed to assist their patients in making a quit attempt. Additionally, providing performance feedback also can serve as a strategy to increase rates of intervention. In essence, these strategies serve as systematic levers, prompting clinicians to take action.

**Dedicating staff to provide tobacco-dependence treatment and assessing the delivery of this treatment in staff performance evaluations.** Having a core staff member who takes a lead role in providing tobacco-dependence treatment to patients (or ensuring that this treatment is provided) has the potential to improve treatment delivery. This is also consistent with the team-based disease-management approach effectively applied to other chronic diseases.<sup>7</sup> Additionally, measuring the delivery of tobacco-dependence treatment in

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**Table 1.** Systems-level strategies to facilitate treatment of tobacco dependence<sup>2</sup>

1. Implement a tobacco-user identification system in every clinic.
2. Provide education, resources and feedback to promote provider intervention.
3. Dedicate staff to provide tobacco dependence treatment and assess the delivery of this treatment in staff performance evaluations.
4. Promote hospital policies that support and provide inpatient tobacco dependence services.
5. Include tobacco dependence treatments (both counseling and pharmacotherapy) identified as effective in this guideline as paid or covered services for all subscribers or members of health insurance packages.
6. Reimburse clinicians and specialists for delivery of effective tobacco dependence treatments and include these interventions among the defined duties of clinicians.

staff performance evaluations raises awareness of the importance of addressing tobacco use to improve health and further integrates such treatment into routine medical care.

**Promoting hospital policies that support and provide tobacco-dependence services.** Hospitalization is an important opportunity to intervene with smokers and address tobacco use in a more intensive manner during the inpatient stay.<sup>8</sup> This is particularly relevant given all hospitals in the U.S. are smoke-free and the recent Joint Commission for Accreditation of Healthcare Organizations (JCAHO) mandate to document the provision of smoking cessation counseling for patients diagnosed with certain conditions (acute myocardial infarction, congestive heart failure, community-acquired pneumonia).<sup>9</sup> By utilizing the hospital stay as an opportunity to offer evidence-based cessation treatment, clinicians may be able to help more hospitalized patients successfully quit using tobacco.

**Including all tobacco-dependence treatments (both counseling and pharmacotherapy) identified as effective as paid or covered services for all subscribers or members of health insurance packages.** Tobacco-dependence treatment is both clinically effective and cost-effective.<sup>2,10–13</sup> Providing coverage for tobacco-dependence treatment removes or reduces cost barriers for accessing care. Studies have indicated that cost sharing results in lower rates of utilization of evidence-based tobacco-dependence treatment<sup>14</sup>; strategies for reducing or eliminating these costs have the potential to increase the number of people accessing services, successfully quitting, and ultimately reducing healthcare costs.

**And, reimburse clinicians for delivering effective tobacco-dependence treatments and include these interventions among the defined duties of clinicians.** Clinicians frequently cite lack of reimbursement as a barrier to providing preventive care.<sup>15</sup> Reimbursing clinicians for

preventive care services has been shown to increase delivery of these services and improvements in health behaviors by patients, including a trend toward decreased smoking.<sup>16</sup>

Systems-level strategies represent a new way of thinking about treating tobacco dependence. Typically, interventions have targeted either the smoker or the clinician. In contrast, systems strategies are intended to ensure that tobacco use, the leading preventable cause of illness and death in the U.S. is systematically assessed and treated at every clinical encounter. Importantly, these strategies are designed to work synergistically with clinician- and patient-focused interventions, ultimately resulting in both activated clinicians and informed patients interacting in a seamless system that facilitates the treatment of tobacco dependence.<sup>7</sup> Such strategies have the potential to have a significant effect on smoking at the population level. Levy et al. estimated that a 2%–3.5% relative reduction in smoking prevalence rates could result over time from widespread implementation of such strategies.<sup>17</sup>

Since these recommendations were first released in 1996, new research has expanded the scientific basis for systems changes, including reviews conducted by the U.S. Preventive Services Task Force (USPSTF) on Community Preventive Services and the Cochrane Collaboration.<sup>18–22</sup> Manley et al. reviewed the literature on health plan implementation of both clinical and community interventions regarding tobacco use. Despite significant improvements in the implementation of systems approaches to address tobacco use by the late 1990s, opportunities for further gains remain.<sup>23</sup> Moreover, an evaluation conducted by the Cancer Research Network found that the adoption of health plan policies can result in the implementation of systems-level changes and increased delivery of these services to patients.<sup>24</sup>

In this paper, the evidence supporting systems-level approaches to address tobacco use is examined in the healthcare setting. The evidence for four of the six strategies is quite robust and is described in detail. The remaining two strategies are reported in brief as there is a less substantial evidence base for these strategies. Future opportunities for research and implementation are also discussed.

### **Implementation of Tobacco-User Identification Systems in the Clinic Setting**

There is significant evidence that implementing a clinic-based tobacco-user identification system increases the rate of smoker identification and facilitates the provision of advice to quit and, possibly, assistance in quitting. Fiore et al.<sup>3</sup> conducted a prospective evaluation of expanding the vital signs to include tobacco use. Post-intervention, patients were more likely to report

being asked about smoking status, being advised to quit, and receiving specific advice on how to quit. Ahluwalia et al.<sup>4</sup> evaluated whether a smoking status stamp would prompt clinicians to address tobacco use among African-American patients. In this study, patients were significantly more likely to be asked about smoking (odds ratio [OR]=4.28, 95% confidence interval [CI]=3.58–5.10), advised to quit (OR=1.81, 95% CI=1.36–2.40), and have follow-up arranged (OR=2.16, 95% CI=1.30–3.38) after the intervention was implemented. Improvements were not seen in specific advice to quit nor in setting a quit date. Papers published by Chang et al.<sup>5</sup> and Robinson et al.<sup>6</sup> also noted statistically significant increases in the rates of asking and advising about tobacco use after a vital signs stamp or chart reminder system was implemented. Recent research further describes the positive impact of including tobacco use as a vital sign on rates of asking about smoking status. Piper et al.<sup>25</sup> studied whether the expanded vital sign stamp would increase rates of smoker identification, advice to quit, provision of assistance, and abstinence rates. Rates of asking about smoking status increased significantly. Unfortunately, rates of advice to quit, provision of assistance, and abstinence rates either were constant or decreased. Boyle and Solberg<sup>26</sup> evaluated whether smoking as a vital sign improved clinician cessation support in primary care and yielded mixed results. Patient self-report of advice about smoking was unchanged after the intervention. Chart documentation of tobacco use during clinical visits more than doubled (from 38% to 78%), yet documentation of advice about smoking decreased by nearly half (from 34% to 19%).

Findings from a periodic survey of health plans conducted by America's Health Insurance Plans (AHIP) show that the percentage of health plans that were able to identify either some or all members who smoke increased from 15% in 1997 to 91% in 2003.<sup>27</sup> Improvements in rates of clinician intervention are also seen in national data sets. Comparison of 2003, 2004, and 2005 Healthcare Effectiveness Data and Information Set (HEDIS) data collected by the National Committee for Quality Assurance (NCQA) documented modest increases in the percentage of commercial enrollees, Medicaid enrollees, and enrollees who reported receiving advice to quit smoking (current rates range from 65% to 75%).<sup>28</sup>

This summary indicates that implementing tobacco-user identification systems improves rates of identifying tobacco users and documenting this important information in the medical record. However, as both Piper et al.<sup>25</sup> and Boyle and Solberg<sup>26</sup> found, these systems do not by themselves consistently spur greater action by clinicians to intervene with their patients who use tobacco. Additional systems-level changes may be needed to create an environment that ensures that tobacco use

is addressed in a comprehensive manner with all patients.

### **Provision of Education, Resources, and Feedback to Clinicians**

Multicomponent interventions that incorporate both provider education and reminder systems can facilitate delivery of evidence-based tobacco-dependence treatments.<sup>18</sup> A review on audit and feedback in clinical practice published by the Cochrane Collaboration found that these strategies can improve provider performance, but improvements are small to modest. The effects of audit and feedback were likely to be larger when initial performance was low.<sup>19</sup>

Four recent studies add to the evidence base surrounding performance feedback. Swartz and colleagues<sup>29</sup> studied the feasibility of academic profiling, an intervention including both provider education and peer-comparison performance feedback generated from claims data and health plan data. As part of this process, the research team provided information on tobacco-related chart documentation, claims for nicotine replacement therapy and bupropion, and International Classification of Diseases (ICD)-9 coding (i.e., diagnosis coding) for tobacco use to primary care physicians. The physicians found the information understandable and indicated that it would help improve their performance, but almost half indicated that they did not believe the chart audit data accurately reflected their performance. McAfee et al.<sup>30</sup> evaluated the effect of automated performance feedback and senior-level incentives on provider compliance with a new system of tobacco status identification and intervention. The new system resulted in a tenfold increase in the rate of tobacco-user identification and over a threefold increase in documentation of provider advice and intervention. Middle managers reported that senior-level incentives were a powerful motivator, demonstrating a commitment to tobacco cessation among a long list of competing priorities and systems efforts. Andrews and colleagues<sup>31</sup> tested a multicomponent intervention to improve primary care providers' adherence to the AHCPR smoking-cessation guideline. They found that educational sessions alone had no significant impact on provider performance; however, feedback resulted in significant improvements in advice, assistance, and follow-up arrangements. Bentz et al.<sup>32</sup> measured the impact of practice feedback generated from electronic health record data on rates of referral to a state quitline. Rates of advice, assessment, and assistance were significantly higher in clinics receiving feedback than in control clinics. Additionally, a higher case-mix index (e.g., having a larger number of patients who were older and/or sicker than the general patient

population) and presence of a clinic champion were associated with increased rates of referral.

In sum, there is a modest but growing body of evidence indicating that provider feedback may be a promising practice for facilitating the delivery of these treatments. Additional research is needed to further evaluate how feedback should be given, what types of feedback are most effective in improving performance, and whether these findings can be replicated in other settings.

### **Hospital Policies that Support Inpatient Cessation Services**

Hospitalization is an important opportunity to intervene with smokers and address tobacco use in a more intensive manner during the inpatient stay.<sup>8,33</sup> By using hospitalization as an opportunity to offer evidence-based cessation services, clinicians may be able to help more hospitalized patients successfully quit using tobacco.

There is a clear body of evidence documenting the efficacy and effectiveness of smoking-cessation interventions in the inpatient setting. A 2007 Cochrane review evaluated the effectiveness of smoking-cessation interventions for hospitalized patients and concluded that high-intensity behavioral interventions that included at least 1 month of follow-up after discharge were effective in increasing the delivery of smoking cessation treatments to inpatients compared to interventions that did not include extensive posthospitalization follow-up or that were conducted only during the inpatient stay.<sup>21</sup>

Systems-level changes such as policies and performance measures are critical to ensure that patient interventions are actually delivered. In 1992, JCAHO issued a standard requiring that all accredited hospitals have a policy prohibiting smoking in the hospital; by 1994, Longo et al.<sup>34</sup> found that more than 96% of hospitals surveyed complied with the JCAHO standard, and over 40% had enacted policies that were stricter than the JCAHO standard. In 2002, for the first time, JCAHO added performance measures for adult smoking-cessation advice and counseling for patients presenting with acute myocardial infarction (AMI), community-acquired pneumonia (CAP), and heart failure (HF) to its core performance measure set. From October 2005 to September 2006, national average rates for providing advice or counseling were 96% (AMI), 91% (HF), and 88% (CAP).<sup>35</sup>

The evidence is clear that hospitalization can be leveraged to help tobacco users successfully quit. Policies and performance measures, such as those adopted by JCAHO, coupled with other systems-level strategies and interventions (e.g., Smith and Taylor, 2006<sup>36</sup>), can help facilitate change and improve delivery of treatment in the inpatient setting.

### **Inclusion of Efficacious Tobacco-Dependence Treatments in Insurance Packages**

Over the last 15 years, there has been a substantial increase in the coverage of tobacco-dependence treatments by publicly funded insurance programs. In 2005, Medicare began covering cessation counseling for recipients diagnosed with a tobacco-related illness, and in 2006, prescription cessation medications were covered through the Medicare Prescription Drug Act (Medicare Part D). A growing number of state Medicaid programs provide some coverage for tobacco cessation; 42 states currently cover at least one evidence-based treatment.<sup>37</sup> In 2006, the Veteran's Administration eliminated co-payments for cessation counseling.

Increases in coverage are also seen in the private market. A periodic survey conducted by AHIP found that health maintenance organization (HMO) plans reporting full coverage for any behavioral or pharmacotherapy increased from 75% in 1997 to 96% in 2003.<sup>27</sup> Findings from a 2004 survey of Wisconsin insurers indicate that 74% covered at least one pharmacotherapy and 62% covered at least one behavioral intervention.<sup>38</sup> However, a survey conducted by Bondi and colleagues<sup>39</sup> in conjunction with the Mercer Group reported that only 20% of employers included cessation coverage as part of covered benefits. As noted by Curry et al.,<sup>37</sup> the differences between these two studies may be due to the AHIP survey asking about the bestselling HMO product, yet most U.S. employees receive care through preferred provider organizations (PPOs). Additional research is warranted to better understand trends in coverage both by insurers and employers.

Several studies have demonstrated the use and cost effectiveness of cessation services. A study by Curry et al.<sup>14</sup> compared the use and cost effectiveness of three forms of coverage for smoking cessation services with a standard form of coverage. Smokers with full coverage had the highest rates of use of these services. While quit rates were lower among the group with full coverage compared to the other groups, the higher use rate resulted in more smokers who successfully quit compared to those with a cost-sharing requirement. The per member per month cost ranged from \$0.07 to \$0.41, depending on the nature of the coverage.<sup>14</sup> Other studies also found cessation services to be cost effective.<sup>11,40,41</sup> The Cochrane Collaboration evaluated the evidence regarding healthcare financing systems for increasing the use of tobacco-dependence treatment and concluded that offering full coverage of tobacco-dependence treatments can increase self-reported prolonged abstinence rates at relatively low costs when compared with a partial benefit or no benefit.<sup>20</sup>

Researchers have begun to estimate the impact of various tobacco-control policies, including cessation

treatment, on quit rates and smoking prevalence. Levy and colleagues<sup>17,42</sup> found that cessation treatment had the potential to increase quit rates by 5%–25% and to reduce smoking prevalence by 1%–2%, depending on the breadth of coverage, restrictions on use of such treatments, and support given to healthcare providers. While strategies such as increased excise taxes and clean-air laws were found to have a potentially greater population-wide impact, cessation treatments were noted as a key component of a comprehensive strategy that could be particularly beneficial in reaching low-income and heavy smokers.<sup>17</sup>

There is some evidence that full coverage of cessation treatment increases abstinence rates at a modest cost. As policy makers obtain a more robust understanding of the costs associated with tobacco use, policy changes at the federal and state level, as well as initiatives undertaken by states and insurers are helping to reduce cost barriers associated with tobacco-dependence treatment. However, challenges remain in increasing consumer demand for such treatments. Lack of consumer demand for treatment may contribute to insurers' and employers' reticence to provide barrier-free coverage. Curry et al.<sup>14</sup> estimated that 10% of smokers per year would utilize treatment when a full benefit was provided, as compared to 2.4% of smokers with a partial benefit. While this represented a substantial increase in utilization among people with full coverage, significant room for improvement remains.

A related issue is whether consumers are aware that their health insurance includes coverage for tobacco-dependence treatment. A study by Boyle et al.<sup>43</sup> found no change in the use of pharmacotherapy or long-term quit rates after implementation of a smoking cessation benefit by two health plans. However, when members were asked if they were aware of the benefit, those who were aware of the benefit were significantly more likely to use the benefit and to make quit attempts; however, long-term cessation rates did not differ significantly. The authors note that greater efforts may be required to educate smokers about the availability of covered benefits in order to see an increase in the use of these benefits.

It is also important to continue efforts to ensure that a greater percentage of employers offer these treatments as part of their basic benefits package. Ensuring that tobacco-dependence treatments are part of basic benefits packages can help reduce barriers to accessing these treatments, particularly cost barriers.

### **Dedicated Staff to Provide Tobacco-Dependence Treatment**

A significant challenge in clinical practice is having sufficient time to completely address patient concerns

and needs. An analysis of the 2004 National Ambulatory Medical Care Survey found that the median office visit lasted 14.7 minutes.<sup>44</sup> Conceptually, designating a tobacco-dependence treatment coordinator represents an opportunity to implement a team approach to address tobacco use and to systematize how tobacco use is addressed in the healthcare setting. There is evidence demonstrating the effectiveness of clinician intervention in increasing abstinence rates relative to self-help.<sup>2</sup> Additional evidence supports the use of team-based approaches for treating tobacco dependence, finding that such strategies increased the delivery of behavior change counseling in primary care.<sup>45</sup> Unfortunately, few health plans have implemented this strategy, nor has it been rigorously evaluated. A 2003 survey conducted by AHIP found that 16.1% of health plans reported having a full- or part-time tobacco-control staffperson, down from a high of 23.5% in 2000.<sup>27</sup> Given resource constraints faced by the U.S. healthcare system, it seems unlikely that this area will grow substantially, thus limiting opportunities for further implementation and evaluation of this strategy.

### **Inclusion of Tobacco-Dependence Treatment Among the Defined Duties of Clinicians and Reimbursing Clinicians for Providing Treatment**

Few studies have evaluated the effects of financial incentives and provider reimbursement and the results are mixed.<sup>46,47</sup> One challenge in attempting to implement and evaluate reimbursement strategies is that few clinicians are aware of a patient's insurance coverage and whether the patient's insurance will reimburse them for providing cessation treatment. As reported by Taylor and Curry,<sup>47</sup> this lack of information "highlights the importance of uniformity in providing reimbursement across the multiple plans with which providers can contract."

The Medicare program represents an opportunity for further study of this strategy. In 2005, Medicare Part B coverage was expanded and clinicians can be reimbursed for providing intermediate-level or intensive cessation-counseling services. Theoretically, this addresses the issue of uniformity in providing reimbursement raised by Taylor and Curry<sup>48</sup> for this population. It will be important to monitor the use of these reimbursement codes as well as use of the Medicare pharmacotherapy benefit to see whether this payment strategy increases the provision of cessation counseling services.

### **Future Directions**

Systems changes have the potential to increase rates of tobacco-user identification and intervention, and

subsequently to improve the health of patients by facilitating quit attempts. A growing body of evidence demonstrates the promise of systems approaches and institutionalization of these approaches is essential to their long-term success. Performance measurement, via measures adopted by HEDIS and JCAHO, and evaluation are essential to allow systems to be recognized for areas in which they are doing well or have made improvements, as well as areas requiring additional attention.

Implementation of systems-level changes is not solely the purview of primary care and hospital settings. Improving the delivery of tobacco-cessation interventions in health systems that serve socioeconomically disadvantaged populations is particularly important, given their high rates of smoking.<sup>49</sup> There is encouraging evidence that health system strategies work in settings like federally qualified health centers.<sup>50</sup> Moreover, healthcare settings and professions, including dental practices and pharmacies also can effectively implement such strategies.<sup>51,52</sup> Additional evaluation and dissemination of best practices is essential to facilitate the continued implementation of such strategies throughout the healthcare delivery system.

Despite the tremendous progress in this field over the past 15 years, further work is needed to ensure that all tobacco users are identified and are offered evidence-based treatment for tobacco dependence each time they present to the healthcare system. This goal is particularly salient given that tobacco use is responsible for approximately one third of cancer deaths and approximately 18% of all deaths in the U.S. annually.<sup>53–57</sup> Further, since over 70% of smokers visit a primary care physician each year,<sup>58</sup> the healthcare delivery system increasingly must address tobacco dependence and implement evidence-based practices to facilitate delivery of such care. Manley et al.<sup>23</sup> called for health plans to become more actively involved in tobacco control and proposed a model—the 5C's (covering, counseling, capitalizing, collaborating, and counting) to facilitate their involvement.

In addition to the model proposed by Manley et al.,<sup>23</sup> several authors have identified key healthcare-systems research questions to better understand how to foster the routine assessment and addressing of tobacco use and dependence.<sup>18,48</sup> Health services researchers and funders may wish to target some or all of these questions.

- Systems approaches such as tobacco-user identification are successful in improving documentation of patients' tobacco use, but do not necessarily result in further intervention. What strategies can be implemented and evaluated to foster provision of quit assistance and follow-up for patients who smoke?

- What are the most and least effective combinations of services in multicomponent interventions?
- How can population-based treatments such as quit-lines or web-based cessation services be integrated into clinical systems?
- How effective are the HEDIS and JCAHO measures in improving patient receipt of evidence-based treatment for smoking cessation and patient tobacco use cessation?
- What would be the impact of a JCAHO requirement mandating that tobacco use be addressed for all hospital admissions?
- How does the base rate of tobacco use in a managed care organization or insurance plan affect implementation of systems-level changes and outcomes?
- How can different types of tobacco-cessation interventions be most effectively integrated in managed care organizations?
- What are the costs, cost-benefit, and return on investment of system-level interventions?
- How can technologies such as patient registries and electronic medical records be used to facilitate delivery of evidence-based tobacco-dependence treatment?

Systems changes hold great promise and offer significant opportunities for addressing tobacco use in the healthcare delivery system. It is incumbent on all of us—researchers, policy makers, healthcare systems leaders, healthcare professionals, and advocates—to continue and expand efforts to ensure that tobacco use is addressed systematically throughout the healthcare delivery system. It is also our responsibility to continue to evaluate such strategies and share lessons learned and promising practices, to allow all patients—regardless of the type of healthcare delivery system they encounter—to receive evidence-based interventions that foster tobacco-use cessation.

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Over the last 5 years, Dr. Fiore has received honoraria for lectures and consulting fees from Pfizer and GlaxoSmithKline. In December 2005, he ceased accepting honoraria or consulting fees from pharmaceutical companies. Over the last 5 years, he has served as an investigator on research studies at the University of Wisconsin that were funded wholly or in part by Pfizer, GlaxoSmithKline, Sanofi-Aventis, and Nabi. In 1998, the University of Wisconsin (UW) appointed Dr. Fiore to a named Chair, made possible by an unrestricted gift to UW from GlaxoWellcome.

Ms. Keller has not accepted compensation or honoraria from the pharmaceutical industry. In the last 5 years, Ms. Keller served as a nontestifying consultant for the Department of Justice in its case against the tobacco companies.

Dr. Curry has received consulting fees and honoraria, as well as reimbursement for conference attendance from either

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