Review

So near, yet so far: Tobacco dependence treatment for pregnant women

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Almost one-half million babies in the United States are born yearly to women who report smoking while pregnant. Almost all of these pregnant women have access to prenatal care, through federally financed health clinics, state and county health programs, or private providers. However, many pregnant smokers are unlikely to receive any type of counseling or assistance to help them stop smoking—despite the availability of evidence-based treatment and the considerable return on investment. This article recommends four next steps to ensure that tobacco dependence treatment is available for all pregnant women. These steps are (a) expanding Medicaid coverage for, and promotion of, effective counseling services for pregnant smokers, (b) improving health care systems by building the capacity of prenatal providers and health care systems to deliver effective treatments, (c) encouraging purchasers of private and public health benefit packages to demand coverage for, and promotion of, effective counseling services for pregnant smokers, and (d) redirecting state resources to ensure a statewide system of care for pregnant smokers. Implementation of these steps requires leadership, diligence, and action by the public health community—as well as ongoing monitoring to assess progress in improving coverage, capacity, and coordination.

Introduction

Each year, almost one-half million babies in the United States are born to mothers who report smoking while pregnant (S. J. Ventura, personal communication, May 2003). Women who smoke during pregnancy deliver 21% of all low birth weight babies (Ventura, Hamilton, Mathews, & Chandra, 2003) and place themselves and their babies at higher risk for maternal, fetal, and infant complications (U.S. Department of Health and Human Services [USDHHS], 2001). Women without a high school education are the most likely to smoke during pregnancy: Among non-Hispanic White women, for example, 41.6% of women with less than 12 years of schooling smoke during pregnancy, compared with 22.7% of those with 12 years of education, and 6.0% of those with more than 12 years of schooling (S. J. Ventura, personal communication, January 14, 2003).

Lawsuits against the tobacco industry were intended to recoup prior health care costs generated by smokers receiving their medical care through the Medicaid program. As a result, pregnant women in the United States, like the general population, should be able to benefit from these lawsuits. Almost all pregnant women (98.9%) have access to prenatal care, through federally financed health clinics, state and county health programs, or private providers (Martin et al., 2002). Many have tried to quit prior to, and during, pregnancy (USDHHS, 2001). However, although most women are asked about their smoking status at the first prenatal visit, relatively few receive adequate counseling or assistance to aid them in quitting (Floyd et al., 2001; Grimley, Bellis, Raczynski, & Henning, 2001; Helwig, Swain,


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Gottlieb, 1998; Mayer, Melvin, Chapin, & Root, 2002; Mullen et al., 1998; Thorndike, Rigotti, Stafford, & Singer, 1998; Zapka et al., 2000). These clinical practices persist despite the availability of evidence-based treatment and the considerable return on investment: For every $1 spent on the treatment of a pregnant smoker, $3 can be saved in neonatal costs, and up to $6 in long-term costs (Marks, Koplan, Hogue, and Dalmat, 1990; Windsor et al., 1993). In 2000, the U.S. Public Health Service (USPHS) document Treating tobacco use and dependence: A clinical practice guideline updated the available evidence and made several recommendations to treat pregnant smokers (Fiore et al., 2000). These recommendations were disseminated further through the American College of Obstetricians and Gynecologists (2000) educational bulletin Smoking cessation during pregnancy. Both documents relied on scientific evidence indicating that a brief 5- to 15-minute counseling session based on the 5 A’s (ask, advise, assess, assist, arrange) augmented by pregnancy-specific educational materials, can increase cessation rates among pregnant smokers by 30% to 70% (Melvin, Dolan-Mullen, Windsor, Whiteside, & Goldenberg, 2000). This increase in cessation rates translates roughly to almost one hundred thousand fewer pregnant smokers per year and, thus, one hundred thousand healthier births and babies. For pregnant smokers needing additional treatment, the guidelines recommend referral to services that can provide more intensive counseling, such as health care settings offering tobacco dependence treatment specialists or telephone quitlines.

Four critical steps to move forward

Given the need, the scientific consensus on treatment, and the considerable short-term return on investment, what must be done to ensure that proven science-based treatments are translated into practice, so that all pregnant smokers in the United States are treated for tobacco use? Orleans, Barker, Kaufman, and Marx (2000) have proposed that increasing the adoption, reach, and impact of evidence-based treatment for pregnant smokers requires a trilateral approach of (a) continually improving the scientific base to develop more effective treatments, (b) implementing policies and programs to build market pull and consumer demand for existing evidence-based treatments, and (c) expanding the capacity of health care systems and providers to deliver them. This article recommends next steps in strengthening coverage and demand for proven treatments and improving health care system delivery capacity. It focuses on roles for the major purchasers and providers of prenatal care for smokers (state Medicaid programs, federal and private employers and purchasing alliances and the health plans and disability insurers with which they contract, and state-administered maternal and child health programs) as well as leadership and coordinating roles for state health departments and tobacco control coalitions.

Expanding Medicaid coverage for smoking cessation treatment

The federal-state Medicaid program, which provides health insurance coverage to approximately half of the nation’s poorest citizens, is administered at the state level. This arrangement leads to considerable variation in services across states, because federal legislation mandates only a basic benefit package. One of the benefits that varies widely across states is coverage for evidence-based tobacco dependence treatments, both pharmacotherapy and the nonmedication counseling services recommended as the initial treatment for all pregnant smokers. Medicaid coverage for smoking cessation treatment among pregnant smokers is particularly critical because smoking during pregnancy is more prevalent among Medicaid beneficiaries and is most cost-beneficial for this group. In 2000, approximately 25% of pregnant Medicaid recipients were smokers, compared with 12% of pregnant women in the general U.S. population in 2001 (Centers for Disease Control and Prevention [CDC], 2000; Martin et al., 2002).

As noted above, reaching more pregnant smokers with these treatments is estimated not only to be cost-effective but also saves money. Yet, even though the number of states providing coverage for any tobacco dependence treatments to their Medicaid beneficiaries increased from 18 states plus the District of Columbia in 1996 to 35 states plus the District of Columbia in 2002 (Halpin, McMenamin, Keeler, Orleans, & Husten, 2004), most of the increase occurred in coverage for pharmacotherapy, which is not recommended as an appropriate first-line treatment for pregnant mothers given the absence of clear data on safety and efficacy in this population. (Recent recommendations indicate that a moderately or heavily addicted pregnant woman and her provider may wish to consider nicotine replacement therapy in conjunction with behavioral therapy following a failure to quit using behavioral counseling; Melvin & Gaffney, 2004). As a result, in 2002, a total of 34 states plus the District of Columbia covered at least one type of guideline-recommended pharmacotherapy, but only 12 states (Florida, Indiana, Kansas, Maine, Minnesota, New Jersey, North Dakota, Oregon, Pennsylvania, Rhode Island, West Virginia, Wisconsin) covered some form of nonmedication counseling for their Medicaid recipients. (Halpin, McMenamin, Keeler, Orleans, & Husten, 2004) An additional seven states (Colorado, Kentucky, Mississippi, New

One barrier to reaching every pregnant smoker with effective smoking cessation counseling is the lack of universal state Medicaid coverage. However, barriers exist even in states that offer such coverage. In 2000, of the 33 states plus the District of Columbia that offered Medicaid coverage for smoking cessation treatments, only 12 reported efforts to inform users of the availability of covered benefits or to encourage their use (unpublished data from the 2000 State Medicaid Survey, Center for Health and Public Policy Studies, UC, Berkeley, 2001). A recent survey of smokers and providers in two states with full Medicaid coverage of all USPHS guideline-based tobacco dependence treatments (pharmacotherapy and counseling) found that only 60% of Medicaid primary care physicians and 36% of Medicaid smokers were aware that Medicaid covered any tobacco dependence treatments (McMenamin, Halpin, Ibrahim, & Orleans, 2004).

To help ensure that covered benefits are used, state Medicaid programs and related state tobacco control programs could greatly increase treatment utilization through promotional efforts to raise providers’ and smokers’ awareness of available treatments and coverage. Results from the American Legacy Foundation’s recent state-based cessation ad campaign referring pregnant smokers to a national Great Start telephone quitline provide compelling evidence that targeted communications campaigns can greatly boost demand and use of available services among pregnant smokers specifically (Haviland et al., 2004). State Medicaid programs and related state tobacco control programs also should review any co-payments for smoking cessation services that may be limiting access to these services (Schauffler, McMenamin, et al., 2001) and seek to eliminate or reduce these co-payments where possible. In effect, any lost revenue from co-payments will be “financed” by the dramatic near-term cost savings from prevention of low birth weight deliveries and other pregnancy complications. Reducing patient out-of-pocket expenses, as well as implementing mass media tobacco cessation campaigns, are two recommendations from the CDC Community Preventive Services guideline to increase population quit attempts and successes (CDC, 2001).

Given the uneven coverage of tobacco dependence treatments across states and the inequities resulting from these differences in policy, one remedy is to make coverage universal by including treatments for tobacco dependence as part of the required core Medicaid benefit package mandated at the federal level. This change would require an act of Congress, and, in fact, legislation was introduced in the 101st Congress to mandate a tobacco dependence treatment benefit at the national level (Senate bill 854 and House of Representatives bill 3676). On the one hand, states might be opposed to a national benefit mandate, fearing increased Medicaid costs associated with the use of the benefit. On the other hand, a strong argument can be made that Medicaid coverage for smoking cessation services for pregnant women could help to relieve state budget pressures through projected near-term Medicaid cost savings associated with fewer high-cost, low birth weight babies. In 1998, the total estimated Medicaid costs attributable to smoking were approximately $12 billion. If states reduced the smoking rates in their Medicaid populations by just 10%, they could save an estimated more than $220 million a year, and if they reduced smoking rates by 25%, they could save on average an estimated $11 million per state per year (American Legacy Foundation, 2002). Most of these estimated cost savings are due to fewer low birth weight babies born to mothers who quit smoking during pregnancy. It is estimated that the potential savings in 2001 from reduced low birth weight medical costs alone was $708 million (American Legacy Foundation, 2002).

Until a federal mandate is enacted, all state Medicaid programs should be encouraged to offer comprehensive coverage to help pregnant women and mothers quit smoking. In addition, the tobacco control advocacy community must organize to prevent erosion of existing coverage in the face of significant budget cuts in most state Medicaid programs.

Building the capacity of health care systems to deliver smoking cessation treatment

Expanding coverage and promotion for smoking cessation treatments for pregnant women is critical to increasing the use and reach of such treatments. But these steps will fail without simultaneous efforts to build the capacity of prenatal health care providers and the health systems in which they work to deliver effective treatments on a routine basis. The Institute of Medicine (2001) report Crossing the quality chasm: A new health system for the 21st century makes it clear that systems changes are needed to close the critical gap between best practice care and usual care that exists for a great many health problems. This report concluded, “The current care systems cannot do the job. Trying harder will not work. Changing systems of care will” (p. 4). In its follow-up report Priority areas for national action: Transforming health care quality, the Institute of Medicine (2003) selected “pregnancy and childbirth” and “tobacco dependence treatments in adults” as two of the most important priorities for national health care quality improvement, citing specifically the need to improve delivery of tobacco cessation counseling in pregnancy.
Fortunately, growing evidence supports provision of interventions that enable providers and their health care systems to improve treatment delivery and use. The CDC Community Preventive Services guideline strongly recommends multicomponent health care system interventions that include, at a minimum, a provider reminder system and a provider education program (CDC, 2001). The American College of Obstetrics and Gynecology has begun efforts to ensure that every provider is trained in tobacco dependence treatment methods during medical school and residency (Chapin & Root, 2004). Enhancing provider training, while critical, is insufficient as a stand-alone approach. The USPHS clinical practice guideline recommends creating clinic-screening systems, for example, “tobacco user ID systems” (Fiore et al., 2000). These recommendations fit well with growing evidence from recent literature that multicomponent systems changes (e.g., combining provider education, performance feedback, reminder systems, local consensus processes, incentives, and top leadership support) often are needed to ensure guideline-based care (Bero et al., 1998; Hulscher, Wensing, Grol, van der Weijden, & van Weel, 1999).

These findings also are consistent with a recent review (Glasgow et al., 2001) proposing that the essential organization and systems changes recommended by Wagner, Austin, and von Korff’s chronic care model (CCM; Wagner, Austin, & von Korff, 1996) to improve the delivery of planned, evidence-based, guideline-based chronic illness care are fundamentally the same as those required for improving the delivery of planned, evidence-based preventive care, including tobacco dependence treatment (Glasgow, Orleans, Wagner, Curry, & Solberg, 2001). The CCM is based on the premise that improving chronic illness care and preventive care outcomes requires productive interactions between providers and their patients aided by care management processes and system supports (Wagner, 1998) (Figure 1). These processes and supports provide patients with the skills, information, tools, and confidence to manage their health, and give providers the skills, information, tools, and supports to offer timely and sustained intervention to their patients.

In the CCM, organizational leadership by the larger health care system is key to supporting providers in adhering to evidence-based guidelines. Leadership includes active involvement of top administrators, provision of incentives (financial and nonfinancial) for providers and patients, and the establishment of tobacco dependence treatment as a key goal for the health system. Clinical information systems supply providers with timely information about individual patients and populations of patients, beginning with the creation of a registry that not only identifies the population to be served (e.g., all pregnant smokers) but also includes information on the extent to which they have received different elements of guideline-based care. Decision support—including ongoing training of providers and their staff and the use of tools (e.g., reminder and performance feedback systems)—prompts timely provider intervention and follow-up. Delivery system design strategies include changes in the composition of the practice team (e.g., designating staff with specific responsibility for prenatal smoking screening and counseling) and innovations in the delivery of self-management support.

**Figure 1.** Chronic care model.
interventions, especially those that minimize provider burden (e.g., proven self-help materials, telephone quitlines, tailored computer-based mailings). Effective self-management support increases patients’ motivations, skills, and social support for behavior change, and effective linkages to community resources (e.g., local quitlines, smoking cessation programs) and policies (e.g., smoke free air laws, tobacco tax increases) help to reduce unhealthy cues and strengthen healthy influences in home, work, and community environments.

Glasgow et al. (2001) have used the CCM to describe and analyze successful systemwide efforts to integrate the 5 A’s for tobacco dependence treatment into routine primary care delivered to smokers enrolled in Group Health Cooperative of Puget Sound (GHC), a large staff-model health maintenance organization (HMO) in Seattle, Washington, and in the Grace Hill Health Center, a large federally qualified neighborhood health center in St. Louis, Missouri. Table 1 briefly summarizes the GHC multi-component initiative that substantially increased the number of smokers counseled and the number who quit, efforts that included reduction and then elimination of patient co-payments (Curry, Grothaus, McAfee, & Pabiniak, 1998; Dacey, 2000; McAfee et al., 1995; Orleans et al., 1991). After GHC’s Free & Clear program was implemented, smoking prevalence among GHC enrollees declined from 25% in 1985 to 15.5% in 1994, a much steeper decline than was observed during the same period for Washington state (23.7% in 1987 to 21.8% in 1994) (McAfee et al., 1995). Moreover, quitters in this program used fewer health care services 3–5 years after quitting, compared with continued smokers (Wagner, Curry, Grothaus, Saunders, & McBride, 1995).

As far as we are aware, no health system has yet launched such comprehensive initiatives as part of their maternity services specifically. In a 2000 survey of U.S. health plans including Medicaid HMOs, 59% of health plans stated that they offered strategies to address smoking cessation during pregnancy, up from 45% of plans in 1997 (McPhillips-Tangum, Cahill, Bocchino, & Cutler, 2002). The type of pregnancy-specific strategies employed by these health plans were explored in depth in a 1999 follow-up survey. Of the 88 health plans responding, most provided at least one of the following interventions: mailed self-help materials (84%), brief counseling by providers during a prenatal visit (82%), referrals to quit-smoking classes (78%), and telephone quitting assistance (71%). About two fifths (43%) of plans in this survey had an electronic database capturing smoking status, and one half of these plans linked their programs to some type of overall quality improvement effort. However, only 40% of respondents had applied the original 1996 clinical practice guidelines in designing their strategy, and most did not monitor utilization or cost savings resulting from the benefits and services they provided (Barker, Robinson, & Rosenthal, 2000). A 1997 survey in California also concluded that most HMOs were not practicing the USPHS guidelines in treating pregnant smokers. Moreover, only two thirds (67%) monitored utilization of these services, and even fewer (28%) examined quit rates (Pickett et al., 2001). Little is known about the depth and extensiveness of these programs and how, if at all, specific multi-component aspects of the CCM have been applied.

We highly recommend that all health systems implement a planned, proactive, guideline-based systemwide approach to treating pregnant smokers, applying the CCM to ensure that each component of this comprehensive approach is implemented.
Moreover, because most women who quit smoking during pregnancy relapse within a year of delivery (Mullen, 2004), any systemwide approach must include a postdelivery treatment plan to prevent relapse. Such a plan might involve the following: the inclusion of follow-up counseling sessions as part of a telephone quitline protocol, relapse prevention intervention at delivery and at the 6-week postpartum visit, and the development of electronic databases that share or transfer quitting behavior information between the obstetrical office and the pediatric or family practice office.

On the assumption that systems cannot improve what they do not measure, we also recommend that health systems set targets for the proportion of pregnant women screened and treated by providers, and then regularly monitor such systems and their impact on reducing smoking during pregnancy. Intermediate measures, such as the proportion of provider offices with tracking systems to measure the proportion of pregnant women screened, as well as outcomes measures such as the Healthy People 2010 objective 27.6 target (i.e., 30% of pregnant women stop smoking during the first trimester of pregnancy) also could be implemented.

Encouraging purchasers to demand smoking cessation coverage

External forces also may help to drive systems changes within health care organizations. Purchasers, especially those with large numbers of women of childbearing age, can insist that the health benefits packages they offer employees cover comprehensive tobacco dependence treatment during pregnancy.

The federal Office of Personnel Management, for example, which oversees the Federal Employee Health Benefits Plan, can extend its current position of encouraging health plans to offer both evidence-based pharmacological and counseling treatment for smokers by mandating such coverage. Business groups acting as large purchasing blocs, such as the Pacific Business Group on Health, can review and recommend specific health plans based on their performance regarding smoking cessation for pregnant women.

In addition, purchasers can negotiate performance targets with health plans or medical groups. Performance targets can be developed to measure the rate at which providers document smoking status in the medical record and advise and counsel pregnant smokers to quit. The Pacific Business Group on Health has negotiated performance guarantees with health plans in California for specific quality measures, staking a percentage of the premium on the meeting of negotiated targets (Schaufler, Brown, & Milstein, 1999). A recent study found that medical groups and independent practice associations that received external quality incentives related to smoking cessation were much more likely to have made the systems changes recommended by the USPHS guideline (McMenamin, Schaufler, Shortell, Rundall, & Gillies, 2003). The Health Plan Employer Data and Information Set (HEDIS) report card, available at the National Committee for Quality Assurance Web site, appears to have helped boost tobacco intervention efforts in managed care plans. In 2002, the percentage of smokers who received advice to quit from their health provider rose to 65% from 61% in 1991 (Orleans & Alper, 2003). As of 2002, HEDIS will measure whether health plans offer tobacco dependence counseling and medication. This information will enable purchasers, as well as childbearing women, to compare the quality of various health plan measures—including whether or not smokers are offered tobacco-cessation counseling or medication—before selecting a health plan.

Redirecting state resources to ensure a statewide system of care for pregnant smokers

In addition to providing Medicaid coverage and implementing various health systems for low-income people, states have a critical role in ensuring that pregnant smokers have access to high-quality treatment and a supportive environment to help them change their smoking behavior. States, in accepting federal public health dollars and garnering state excise taxes paid by smokers purchasing cigarettes, have an obligation to provide a comprehensive tobacco control program to their citizens. The CDC Best practices for comprehensive tobacco control programs includes promoting quitting as one of its four recommended strategies to reduce disease, disability, and death related to tobacco use (CDC, 1999). In this era of historically large state budget deficits, tobacco treatment programs that save money—such as those for pregnant women—should be a high priority for every state.

Although many states are faced with difficult decisions about reducing benefits and restricting eligibility to address mounting deficits, key state policy makers must be fully aware of the improvement in the quality of care and fiscal benefits that accrue from an effective smoking cessation program targeted at pregnant women (benefits that are both immediate and long lasting). A software program, Maternal and Child Health Smoking-Attributable Mortality, Morbidity, and Economic Costs (MCH SAMMEC), is available to states wanting to calculate the number of estimated smoking-attributable deaths and years of potential life lost for infants, as well as neonatal medical expenditures attributed to maternal smoking for certain user-defined populations in their state. Tobacco control advocates must educate state decision makers and may have to fiscally balance
Various recommendations for ensuring that all pregnant women are screened and treated for tobacco dependence.

Population-based telephone quitlines can serve as a catalyst in building a statewide treatment system. Thirty-seven states now oversee telephone quitlines to counsel smokers, serving as a referral hub to and from community providers (Center for Tobacco Cessation, 2003). The existence of a state quitline, however, is not enough. Demand must be created through mass media campaigns with positive quitting messages that are reinforced in the workplace, at home, and in provider offices. In addition, other community resources must be made available to support quitters. Media campaigns can help raise awareness among pregnant women that effective treatments exist and can be accessed easily through their prenatal care provider and state quitline. Moreover, quitline protocols need to be tailored to the pregnant woman’s special needs, and sometimes condensed, to ensure smoke-free deliveries. At least four systemwide tobacco dependence treatment programs for pregnant women (Maine Prenatal Collaborative, Oklahoma Smoke-Free Beginnings, Oregon Smoke-Free Mothers and Babies, and San Diego Partnership for Smoke-Free Families) have proactively linked pregnant smokers to a state quitline by having the provider contact the hotline on the woman's behalf (after obtaining informed patient consent).

In addition to creatively redirecting public health monies to build the necessary infrastructure to serve pregnant smokers, states can play a pivotal role in coordinating and assisting providers and health systems as they add prenatal tobacco dependence programs. State departments serving pregnant women who smoke, such as maternal and child health offices, tobacco control programs, and Medicaid programs, can pool their resources (financial and nonfinancial) to efficiently serve this population and their providers. Given the scarcity of fiscal resources, pooling of resources that are at the disposal of the state—even if no new money exists—is a prudent approach to improve coordination and communication among providers of care and key state administrative agencies.

Many states also have grassroots coalitions or working partnerships with the private sector, such as the Robert Wood Johnson Foundation’s SmokeLess States partnerships. States also can play a leadership role in organizing an efficient strategy to galvanize other groups such as medical associations, child advocacy groups, volunteer organizations (i.e., American Cancer Society, American Heart Association, American Lung Association and the March of Dimes), businesses, and local philanthropies to participate in a statewide system of care for pregnant smokers. Moreover, states can develop better program monitoring systems—similar to those recommended for health systems—to measure their success in treating pregnant smokers.

A few states already have implemented innovative approaches to tobacco treatment during pregnancy. For example, the Utah Medicaid office is now partnering with the Tobacco Prevention and Control Program (TPCP) to screen and proactively refer pregnant smokers served by Medicaid to their state quitline. Medicaid dollars—via the state-federal match—help support the TPCP media campaign informing Medicaid clients about these services. Oregon has developed a coordinated system of care for pregnant women who smoke, through their county maternity case management system overseen by the Office of Family Health Services, located within the Oregon Department of Human Services. Case managers and prenatal clinicians share responsibility for delivering the 5 A’s, and they use a fax referral system to promote utilization of the Oregon Quit Line. The Quit Line has a pregnancy-specific protocol and is supported by state tobacco control dollars. In addition, the Oregon Health Plan—its Medicaid demonstration project—covers all recommended behavioral and pharmacological treatments for tobacco dependence for all recipients. The Oregon Health Plan launched a new tobacco cessation campaign in 2002 to raise awareness among providers and members that tobacco treatments are a covered benefit under Medicaid. Unfortunately, at the time of submission of this article, the Oregon Quit Line had been dismantled temporarily due to state budget cuts, and its future remains uncertain.

Given all the fiscal problems states are confronting, a reassessment by each state of the programs it administers—which are most cost-effective, save the most money, and provide the highest quality of care—is likely to occur. In this context, tobacco cessation services for pregnant women who smoke should rank high on the list and be retained or implemented.

**How near? What will it take to get there?**

The four critical steps recommended above will require leadership, diligence, and concerted action by the public health community—as well as ongoing monitoring to assess progress in improving coverage, capacity, and coordination. The National Partnership to Help Pregnant Smokers Quit is poised to help coordinate efforts by states, health plans, professional associations, advocates, and others. As indicated earlier, the Institute of Medicine has ranked tobacco cessation interventions for adults—and appropriate prenatal and intrapartum care including tobacco cessation counseling—as 2 of the top 20 health priorities to transform the quality of care in the United States. We hypothesize that, collectively, these
four strategies, if implemented and well-monitored, could bring us to the tipping point of delivering evidence-based prenatal smoking cessation treatment to all pregnant women who smoke.

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References


