Research shows clearly that systems-level changes can reduce smoking prevalence among enrollees of managed health care plans. Guideline recommendations for systems changes and systems strategies and actions are summarized below.

Why We Need a Systems Approach

The human cost of tobacco use is devastating.

Tobacco is the single greatest cause of disease and premature death in America today and is responsible for more than 430,000 deaths each year. Nearly 25 percent of adult Americans currently smoke, and 3,000 children and adolescents become regular users of tobacco every day.

The financial burden of tobacco use is staggering.

The societal costs of tobacco death and disease approach $100 billion. Americans spend an estimated $50 billion annually on direct medical care for smoking-related illnesses. Lost productivity and forfeited earnings due to smoking-related disability account for another $47 billion per year.

According to Treating Tobacco Use and Dependence, a clinical practice guideline released in June 2000 by the U.S. Public Health Service (PHS), efficacious cessation treatments for tobacco users are available and should become a part of standard caregiving.

In addition, research shows that delivering treatment to tobacco users is cost-effective. Smoking cessation interventions are less costly than other routine medical interventions such as treatment of mild to moderate high blood pressure and preventive medical practices such as periodic mammography. In fact, the average cost per smoker for effective cessation treatment is $165.61.
In summary, for smoking cessation intervention to impact a large number of tobacco users, it is essential that clinicians and health care delivery systems (including administrators, insurers, and purchasers) institutionalize the consistent identification, documentation, and treatment of every tobacco user seen in a health care setting.

Because an increasing number of Americans today receive their health care in managed care settings, health system administrators, insurers, and health care purchasers now play a significant role in the health care of most Americans.

Your influence can encourage and support the consistent and effective identification and treatment of tobacco users. Indeed, research clearly shows that systems-level change can reduce smoking prevalence among enrollees of managed health care plans. Therefore, you must assume responsibility to craft policies, provide resources, and display leadership that results in consistent and effective tobacco use treatment.

Guideline Recommendations for Systems Changes

These six strategies are recommended in the PHS guideline, *Treating Tobacco Use and Dependence*:

- Every clinic should implement a tobacco-user identification system.
- All health care systems should provide education, resources, and feedback to promote provider interventions.
- Clinical sites should dedicate staff to provide tobacco dependence treatment and assess the delivery of this treatment in staff performance evaluations.
- Hospitals should promote policies that support and provide tobacco dependence services.
- Insurers and managed care organizations (MCOs) should include tobacco dependence treatments (both counseling and pharmacotherapy) as paid or covered services for all subscribers or members of health insurance packages.
- Insurers and MCOs should reimburse clinicians and specialists for delivery of effective tobacco dependence treatments and include these interventions among the defined duties of clinicians.

These six strategies have been demonstrated to be effective as part of a coordinated effort to provide consistent and effective tobacco interventions. Employing them will result in an increase in smoking cessation and a reduction in the costs resulting from the associated disease.

The Six Strategies
Below are the systems strategies and actions recommended in the guideline:

**Strategy 1. Implement a Tobacco-user Identification System in Every Clinic**

- Implementing clinic systems designed to increase the assessment and documentation of tobacco use markedly increases the rate clinicians intervene with their patients who smoke. Including tobacco status as a vital sign increases the probability that tobacco use is consistently assessed and documented.
- Having a clinic system in place to identify smokers also results in higher rates of smoking cessation.
- Asking all patients if they use tobacco and having their tobacco-use status documented on a regular basis is recommended.

**Table 1. Implementing a Tobacco-user Identification System in Every Clinic**

<table>
<thead>
<tr>
<th>Action:</th>
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<tbody>
<tr>
<td>Implement an office-wide system that ensures that, for every patient at every clinic visit, tobacco-use status is queried and documented.</td>
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</tbody>
</table>

**Strategies for implementation:**

*Office system change*: Expanding the Vital Signs to include tobacco use or implement an alternative universal identification.

*Responsible staff*: Nurse, medical assistant, receptionist, or other individual already responsible for measuring the vital signs. These staff must be instructed regarding the importance of this activity and serve as non-smoking role models.

*Frequency of utilization*: Every visit for every patient regardless of the reason that brought the individual to the clinic. Repeated assessment is not necessary in the case of the adult who has never used tobacco or not used tobacco for many years, and for whom this information is clearly documented in the medical record.

*System implementation steps*: Prepare progress note paper or computer record to include tobacco use along with the traditional vital signs for every patient visit. A vital sign stamp also can be used. Alternatives to the vital sign stamp are to place tobacco-use status stickers on all patient charts or to indicate smoking status using computer reminder systems.
Strategy 2. Provide Education, Resources, and Feedback to Promote Provider Interventions

- Smoking cessation interventions delivered by multiple types of health care providers (e.g., dentists, nurses, psychologists, social workers) markedly increase cessation rates compared with interventions where no provider intervenes (e.g., self-administered interventions).
- To encourage provider interventions, all clinicians and clinicians-in-training should be trained in effective strategies to promote the motivation to quit tobacco use and to increase patients' success in quitting.
- Many studies examined the impact of training as it co-occurred with other systems changes such as reminder systems or staff education. Training appears to be more effective when coupled with these systems changes.

Factors that would promote the training of clinicians in tobacco intervention activities include:

- Inclusion of education and training in tobacco dependence treatments in the required curricula of all clinical disciplines.
- Inclusion of questions on effective tobacco dependence treatment in licensing and certification exams for all clinical disciplines.
- Adoption by specialty societies of a uniform standard of competence in tobacco dependence treatment for all members.

Table 2. Provide Education, Resources, and Feedback to Promote Provider Interventions

<table>
<thead>
<tr>
<th>Action:</th>
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<tbody>
<tr>
<td>Health care systems should ensure that clinicians have sufficient training to treat tobacco dependence, clinicians and patients have cessation resources, and clinicians are given feedback about their tobacco dependence treatment practices.</td>
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</tbody>
</table>

Strategies for implementation:

*Educate*—On a regular basis, offer lectures/seminars/in-services with continuing medical education (CME) and/or other credit for tobacco dependence treatment.

*Provide resources*—Have patient self-help materials, as well as bupropion SR and nicotine replacement "starter kits," readily available in every exam room.

*Report*—Include the provision of tobacco dependence treatment on "report cards" for managed care organizations and other insurers (e.g., the National
Committee for Quality Assurance’s Health Plan Employer Data and Information Set [HEDIS]).

Provide feedback—Drawing on data from chart audits, electronic medical records, and computerized patient databases, evaluate the degree to which clinicians are identifying, documenting, and treating patients who use tobacco, and provide feedback to clinicians about their performance.

Strategy 3. Dedicate Staff to Provide Tobacco Dependence Treatment and Assess the Delivery of this Treatment in Staff Performance Evaluations

- Treatment delivered by a variety of clinician types increases abstinence rates. Therefore, all clinicians should provide smoking cessation interventions.

Table 3. Dedicate Staff to Provide Tobacco Dependence Treatment and Assess the Delivery of this Treatment in Staff Performance Evaluations

Action:

Clinical sites should communicate to all staff the importance of intervening with tobacco users and should designate a staff person (e.g., nurse, medical assistant, or other clinician) to coordinate tobacco dependence treatments. Non-physician personnel may serve as effective, but lower cost, providers of tobacco dependence interventions.

Strategies for implementation:

Designate a tobacco dependence treatment coordinator for every clinical site.

Delineate the responsibilities of the tobacco dependence treatment coordinator. Including instructing patients on the effective use of treatments (e.g., pharmacotherapy, telephone calls to and from prospective quitters, and scheduled followup visits, especially in the immediate period after quitting).

Communicate to each staff member (e.g., nurse, physician, medical assistant, or other clinician) his or her responsibilities in the delivery of tobacco dependence services. Incorporate a discussion of these staff responsibilities into training of new and temporary staff.
Strategy 4. Promote Hospital Policies that Support and Provide Tobacco Dependence Services

It is vital that hospitalized patients attempt to quit smoking, because smoking may interfere with their recovery.

- Among cardiac patients, second heart attacks are more common in those who continue to smoke.
- Lung, head, and neck cancer patients who are successfully treated, but who continue to smoke, are at elevated risk for a second cancer.
- Additionally, smoking negatively affects bone and wound healing.

Hospitalized patients may be particularly motivated to make a quit attempt for two reasons:

- The illness resulting in hospitalization may have been caused or exacerbated by smoking, highlighting the patient's personal vulnerability to the health risks of smoking.
- Every hospital in the United States must now be smoke free if it is to be accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). As a result, every hospitalized smoker is temporarily housed in a smoke-free environment.

Table 4. Promote Hospital Policies that Support and Provide Tobacco Dependence Services

<table>
<thead>
<tr>
<th>Action:</th>
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<tr>
<td>Provide tobacco dependence treatment to all tobacco users admitted to a hospital.</td>
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</table>

**Strategies for implementation:**

*Implement* a system to identify and document the tobacco-use status of all hospitalized patients.

*Identify* a clinician(s) to deliver tobacco dependence inpatient consultation services for every hospital.

*Offer* tobacco dependence treatment to all hospitalized patients who use tobacco.

*Reimburse* providers for tobacco dependence in-patient consultation services.
Expand hospital formularies to include FDA-approved tobacco dependence pharmacotherapies.

Ensure compliance with JCAHO regulations mandating that all sections of the hospital be entirely smoke-free.

Educate hospital staff that first-line medications may be used to reduce withdrawal symptoms, even if the patient is not intending to quit.

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Strategy 5. Include Tobacco Dependence Treatments (both Counseling and Pharmacotherapy) as Paid or Covered Services for All Subscribers or Members of Health Insurance Packages

- Smoking cessation treatments are not only clinically effective, but they are also extremely cost-effective relative to other commonly used disease prevention interventions and medical treatments.
- Cost-effectiveness analyses have shown that smoking cessation treatment compares quite favorably with routinely reimbursed medical interventions such as the treatment of hypertension and hypercholesterolemia as well as preventive screening interventions such as periodic mammography or Papanicolaou (PAP) smears.
- Tobacco dependence treatment is valuable in preventing a variety of associated medical risks including heart disease, cancer, and pulmonary disease.
- When smoking cessation services are provided as a fully covered benefit by a health plan in contrast to a health plan that required a significant co-pay, evidence suggests that the overall use of cessation treatment will increase and smoking prevalence within the health plan will decrease. The national health promotion and disease prevention objectives for the year 2010 as set forth in Healthy People 2010 propose to increase to 100 percent the proportion of health plans that offer treatment of nicotine addiction, such as tobacco use cessation counseling by health care providers, pharmacotherapies, and other cessation services.
- The presence of prepaid or discounted prescription drug benefits increases patients' receipt of nicotine gum, the duration of gum use, and smoking cessation rates.

Table 5. Include Tobacco Dependence Treatments (both Counseling and Pharmacotherapy) as Paid or Covered Services for All Subscribers or Members of Health Insurance Packages

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Action:
Provide all insurance subscribers, including MCO members with coverage for effective tobacco dependence treatments, including pharmacotherapy and counseling.

**Strategies for implementation:**

*Cover*—Include effective tobacco dependence treatments (both counseling and pharmacotherapy) as part of the basic benefits package for all health insurance packages.

*Educate*—Inform subscribers, including MCO members, of the availability of covered tobacco dependence treatments (both counseling and pharmacotherapy) and encourage patients to use these services.

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**Strategy 6. Reimburse Clinicians and Specialists for Delivery of Effective Tobacco Dependence Treatments and Include Them Among the Defined Duties of Clinicians**

- Primary care clinicians frequently cite insufficient insurance reimbursement as a barrier to providing preventive services such as smoking cessation treatment.
- Insurance coverage has been shown to increase rates of cessation services utilization and therefore increase quitting.
- An 8-year insurance industry study found that reimbursing physicians resulted in an overall increase in the provision of preventive care services. Therefore, smoking cessation treatments (both pharmacotherapy and counseling) should be provided as paid services for subscribers of health insurance/managed care.

Clinicians should be reimbursed for delivering effective smoking cessation treatments. For patients willing to attend such programs, insurers should encourage referral to intensive programs through education and incentives to primary care providers.

**Table 6. Reimburse Clinicians and Specialists for Delivery of Effective Tobacco Dependence Treatments and Include Them Among the Defined Duties of Clinicians**

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**Action:**
Reimburse fee-for-service clinicians and specialists for delivery of effective tobacco dependence treatments. Include tobacco dependence treatments in the defined duties of salaried clinicians and those working in capitated environments.

**Strategies for implementation:**

*Include* tobacco dependence treatment as a reimbursable activity for fee-for-service providers.

*Inform* fee-for-service clinicians and specialists that they will be reimbursed for using effective tobacco dependence treatments.

*Include* tobacco dependence intervention in the job descriptions and performance evaluations of salaried clinicians and specialists.

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**For More Information**

This information was taken from *Treating Tobacco Use and Dependence*, a PHS-sponsored Clinical Practice Guideline. For information on the availability of the guideline and other related products, or to get more copies of this guide, call any of the following toll-free numbers:

- Agency for Healthcare Research and Quality, 800-358-9295.
- Centers for Disease Control and Prevention, 800-CDC-1311.
- National Cancer Institute, 800-4-CANCER.

The full text of the guideline document is available [online](http://www.surgeongeneral.gov/tobacco/systems.htm).

*Current as of November 2000*

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