Promoting Smoking Cessation in the Health Care Environment:

Ten Years Later

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A decade ago there was great optimism for harnessing the health care system to increase the use of evidence-based tobacco dependence treatment and, ultimately, to achieve national goals for reductions in the prevalence of tobacco use. Two catalysts for addressing tobacco in health care at that time were the newly released AHCPR Clinical Practice Guideline, which documented that brief primary care counseling and pharmacotherapy could double population quit rates,[1] and the inclusion of primary care provider advice to quit as a National Committee for Quality Assurance's (NCQA) Health Plan Employer Data Information System (HEDIS) measure.[2]

The Clinical Practice Guideline was visionary in its recognition of the importance of health care systems changes to institutionalize tobacco dependence treatment rather than relying solely on clinicians to take action. Recommended health systems strategies included implementing tobacco user identification systems; provider education, resources, and feedback; dedicated staff to foster delivery of treatment; hospital policies to support inpatient cessation services; coverage for evidence-based behavioral and pharmacological treatments in all insurance packages; and accountabilities and reimbursement for clinicians to deliver cessation treatments as a routine part of clinical care.[1]

With its broad reach into the population, more centralized systems of care, and unique incentives for prevention, many believed that managed care offered an unprecedented opportunity to make tobacco use screening and intervention the standard of care for quality health care delivery.[3] Projections were that by 2005 the majority of commercially insured U.S. citizens would be enrolled in managed care.[4] Thus, getting managed care organizations to coalesce on provider accountabilities, reimbursement mechanisms, systems supports, and in-patient treatment standards could affect treatment of tobacco use and dependence in the vast majority of clinical practices in the United States. To facilitate implementation of the evidence-based guideline, in 1997 the Robert Wood Johnson Foundation launched the Addressing Tobacco in Managed Care national program that included a a national grants program co-directed at the University of Wisconsin and University of Illinois at Chicago[5] and a national technical assistance office headed by America's Health Insurance Plans (formerly the American Association of Health Plans).[6]

Where are we a decade later? Predictions about the reach of 'managed care' were fairly accurate for individuals with employer-sponsored health insurance. Overall, managed care dominates most insurance markets, with the exception of Medicare. Recent data show that among covered employees only 5% are enrolled in conventional

indemnity plans (down from 27% in 1996).[7] Most (55%) are enrolled in a Preferred Provider Organization (PPO) that is the most decentralized managed care configuration.[7] By 2001, more than 91% of physicians were part of a medical practice that had at least one managed care contract and most of these had many contracts (mean =13).[4] Medicaid managed care enrollment increased modestly from 40% in 1996 to 59% in 2003.[8] However, managed care enrollment among Medicare enrollees remains unchanged from 1996 at 11%.[7]

The past decade also witnessed an increased emphasis on the need for systems changes to close the gap between evidence-based practice and usual care, especially following the 2001 publication of the Institute of Medicine's (IOM's) report, *Crossing the Quality Chasm: a New Health System for the 21st Century*.[8] The IOM selected treatment of tobacco use and dependence as one of 20 priority conditions for national action because of its extraordinary population health impact, its cost-effectiveness and evidence that such systems changes improve the delivery of this treatment.[9] Increasing accountabilities for addressing tobacco use and dependence, an increasingly common approach to improving quality and closing the evidence-practice gap, also has played a role. HEDIS measures have expanded from one measure of advice to quit in 1996 to three measures in 2005 that assess offering of behavioral and pharmacological treatments in addition to simply providing advice.[10]

Beginning in 2005, the Joint Commission on Accreditation of Health Care Organizations included a measure of the number of inpatients with a history of smoking cigarettes who receive advice or counseling for smoking cessation during their hospital stay as a core measure for acute myocardial infarction, congestive heart failure, and pneumonia.[11] And both primary care provider advice to quit and post-MI counseling to quit smoking are included in AHRQ's Annual Healthcare Quality Report.[12]

Published research on smoking cessation in health care provides further support for the effectiveness of the system-level strategies recommended in the clinical practice guideline. For example, several studies show that adding smoking as a vital sign increases rates of asking about tobacco use and documentation of tobacco use in the medical record.[13,14]

There also are encouraging findings regarding provider education, reminder systems and feedback. Providers are receptive to academic profiling and feedback.[15] Both individual and team feedback increases delivery of advice, assistance and arranging follow-up with patients who smoke,[16] automated performance feedback and senior-level incentives increase identification and intervention with smokers,[17] and achievable benchmark feedback based on data captured in an electronic medical record increases delivery of cessation advice, assistance and follow-up.[18]

Support for the effects of financial incentives and reimbursement has been mixed. Clinic-based financial incentives improved rates identifying tobacco use status, but did not improve rates of advice, assistance, or follow-up. However, when paired with a centralized registry of tobacco users and a health-system sponsored telephone-based cessation program, incentives increased the number of smokers who used cessation services.[19] In another study, quarterly bonus incentives increased referrals to a state quit line.[20] Modest reimbursements to clinicians on a per-patient basis for counseling smokers have not increased rates of counseling or of referral to telephone quitlines.[20] These findings suggest that new pay-for-performance initiatives may have their greatest impact when paired with supportive systems changes.

Evidence is strong that insurance coverage for smoking cessation treatments increases treatment use and population quit rates.[21] Moreover, studies show that the higher the cost-sharing for treatment, the less it is used.[21] Although insurance coverage increases use of cessation services, rates of benefit use, even among smokers with full coverage, is relatively low (i.e., under 20%).[22] One study showed much higher rates of use of a pharmacotherapy benefit among smokers who were aware of the benefit (over 40%), underscoring the need for effective communication of treatment coverage and benefits.[23]

The increased reach of managed care, more accountability for health plans and the larger U.S. health care system to address tobacco, and growing evidence for the effectiveness of health system approaches for treating tobacco use and dependence are meaningful only if they improve the availability and delivery of evidence-based treatment to smokers. We see some positive trends in several areas, including the availability of behavioral and pharmacological treatment, insurance coverage and reimbursement for tobacco cessation treatments, and front-line provider interventions with patients who smoke.

For behavioral treatment, we have seen an increase from 4 states with quit lines in 1996 to a total of 45 states as well as a federally sponsored national portal for telephone smoking cessation counseling (1-800QUITNOW) serving all 50 states and the District of Columbia in 2006. Nicotine gum, patches and lozenges, are now available over-the-counter, several additional forms of FDA-approved pharmacotherapies for tobacco dependence (including nicotine nasal spray and inhalers and bupriprion SR) are available by prescription. One newly approved medication, varenicline is about to be released and others are under development.[22]

The paper by Schnoll and colleagues in this issue provides encouraging national data on physician-reported rates of providing cessation advice and assistance.[24] Their survey found over 70% of

physicians reporting routinely advising their patients to quit smoking and over 60% reporting that they routinely recommend pharmacotherapies. Less encouraging were low rates of reported referral to behavioral support. There are notable similarities between physician self-reports in this national survey and other national patient-based reports. For example, data from national surveys show an increase in reported advice to quit smoking from a health care provider from 40-50% in the mid 1990's to 62% in the mid 2000's.[25] NCQA HEDIS measures from 2004 show that nearly 70% of smokers or recent quitters (68.7%) received advice to quit smoking from their practitioner and over 36% reported that their practitioner discussed smoking cessation strategies.[10] However, a considerably lower percentage of smokers reported that their providers discussed smoking cessation medications (37.6%).

The inclusion of coverage for evidence-based tobacco cessation treatments in public insurance benefits is increasing. A total of 42 state Medicaid programs now cover at least some evidence-based tobacco cessation treatment (versus 22 in 1997) and both Medicare and the Veterans' Administration have added coverage for behavioral counseling and pharmacotherapy.[26] There are promisng trends as well in private insurance coverage. The most recent survey by America's Health Insurance Plans reported that 97% of plans provide coverage for some form of tobacco cessation treatment in at least one of their insurance

products compared to 75% in 1997.[27] However, there is room for improvement: only 41% of plans report coverage for bupropion SR, 8% for nicotine patches, 52% for telephone counseling, and 16% for group counseling. The coverage picture becomes more confusing with data from a recent employer survey showing that only 20% of employer selected plans include such coverage in their primary plan.[28] The discrepancy between these two national surveys may reflect the fact that the AHIP survey asked only about the insurer's best selling Health Maintenance Organization (HMO) product-- whereas the majority of U.S. employees receive their care through PPO's. Clearly, barriers to insurance coverage exist, including lack of awareness on the part of insurers and purchasers of the potential return on investment (ROI) for adding coverage for cessation treatments.[22,29] Several recent studies document reductions in health care utilization and costs following smoking cessation and an ROI calculator for insurers is available in the public domain for individualized calculations of potential cost savings.[30]

Overall, we have seen enormous progress over the past decade in promoting smoking cessation through the health care system. Changes in health care systems, provider behavior, and treatment accessibility along with progress in other areas, including clean air policies and increased taxes on tobacco products have contributed to measurable declines in smoking prevalence. Indeed, recent data show an acceleration in the

decline in per capita cigarette consumption seen over the last 50 years, with a 4.2% decline in 2005 and a 20% decline since 1998, as well as a continued steady but slow decline in adult smoking prevalence.[31.32] These changes have come about through a combination of systematic research to identify effective treatments and the systems changes needed to deliver them, and focused, committed leadership and advocacy to apply the fruits of this research.

While there is much to celebrate in the progress we've made, there is much that remains to be done. Although the use of evidence-based treatments doubles a smoker's chances for successful cessation, use of and demand for these treatments remains low, especially among low-income and underserved populations where tobacco use prevalence is highest.[23,26] Low demand may result from lower rates of coverage in most employer-based insurance plans as well as lack of awareness of coverage and treatment efficacy among key populations of smokers, including those covered by Medicaid.[29] Proven health system changes for addressing tobacco use and dependence will only be effective if they are sustained and integrated into the culture of health care delivery for all Americans. Most lacking in this area are easily implemented and reimbursable systems for providing assistance and arranging follow-up for smokers who are motivated to quit, assistance that is increasingly within

the reach of health plans, practices, providers and the public through the proliferation of cost- and barrier-free quit lines.[33,34]

Challenges remain for the next decade. We must ensure that: patients' smoking status and engagement in the quitting process are integral parts of their electronic medical records; providers have seamless methods for linking motivated smokers with effective, evidence-based behavioral and pharmacological treatments; coverage for evidence-based treatments is an expected benefit in all private and public health plans; and health systems' performance in addressing tobacco use and dependence is an expected, routinely tracked, and publicly reported indicator of health care quality.

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