Addressing Tobacco in Healthcare National Forum Proceedings

Introduction

On February 15, 2006, the Addressing Tobacco in Healthcare Research Network (formerly known as the Addressing Tobacco in Managed Care National Program Office) coordinated a pre-conference session before the 12th annual meeting of the Society for Research on Nicotine and Tobacco (SRNT) in Orlando, Florida. The pre-conference, titled *Translating Health Services Research into Practice and Policy* was funded by the Robert Wood Johnson Foundation (RWJF) and the National Cancer Institute (NCI). The program was facilitated by the two co-directors of Addressing Tobacco in Healthcare (ATHC), Susan Curry, PhD, University of Illinois at Chicago, and Michael Fiore, MD, MPH, University of Wisconsin Center for Tobacco Research and Intervention. One hundred twenty people attended the pre-conference.

This conference provided an opportunity for national and international researchers, clinicians, other health care providers, and interested partners to discuss systems-level strategies for addressing tobacco use and to examine opportunities to leverage the lessons learned from tobacco into strategies aimed at other health risk behaviors. The conference consisted of two expert panel presentations each followed by a discussion period in which participants described successes with systems change, implementation challenges, and future opportunities for innovation and continued study.

Overview: Systems Change Innovations for Tobacco Control: Looking Back and Envisioning the Future

Michael Fiore, MD, MPH, Director, University of Wisconsin Center for Tobacco Research and Intervention

Dr. Fiore provided an overview of the growing evidence base and progress in implementing systems-level changes for tobacco dependence treatment in health care. Both the 1996 AHCPR *Smoking Cessation Clinical Practice Guideline No. 18* and the subsequent 2000 PHS Clinical Practice Guideline, *Treating Tobacco Use and Dependence* included systems-level strategies to facilitate delivery of these treatments. The six evidence-based recommendations were:

- Implementing tobacco user identification systems,
- Facilitating provider education, reminder systems and feedback,
- Dedicating staff to address smoking cessation,
- Targeting hospitalized patients who smoke,
- Providing insurance coverage for evidence-based tobacco dependence treatments, and
- Activating clinicians by including tobacco dependence treatment in their core responsibilities as well as providing incentives and reimbursement.

There have been remarkable accomplishments over the past 10 years. A growing body of evidence supports that tobacco user identification systems such as including tobacco use as a vital sign substantially increases the rates of tobacco use identification and, in some instances, rates of advice.[1-6] Periodic surveys conducted by America's Health Insurance Plans indicate improvements by health plans across the country as well, with 72% of health plans able to identify any tobacco users compared to only 10 to 30% prior to the guideline.[7] This survey also found that fifty-four percent of health plans include smoking status as a vital sign. While there has been good progress in implementing the first two of the 5A's [*], rates of delivery of the rest of the 5 A's are suboptimal. Additional changes are needed to improve the delivery of the final three A's.

Another success is reflected in the vast improvement in insurance coverage for tobacco dependence treatment. From virtually no coverage at all 10 years ago, we have progressed to:

- Medicare covering prescription pharmacotherapy and counseling,
- 40 state Medicaid programs covering at least one cessation treatment,
- The Veteran's Administration providing pharmacotherapy and eliminating co-pays for counseling, and
- Increasing numbers of health care plans that include cessation treatment as a covered benefit.

Still, disconnects exist between availability and utilization. Although 60 to 70% of health plans include smoking cessation treatment in various benefit packages, only about 20% of employers report purchasing plans with that benefit. More systems changes will be required to translate coverage in the insurance market to coverage for employees, and to increase utilization of covered cessation benefits by smokers.

Although education itself is not sufficient to drive implementation of the 5 A's, new research indicates that education coupled with reminder systems and feedback can help clinicians address tobacco use in a more comprehensive manner. A recent Cochrane review of reminders and performance feedback mechanisms [1] noted a modest effect of these strategies on the rate at which physicians intervene with patients. Research funded by Addressing Tobacco in Managed Care, AHRQ, and others is highlighting the promise of strategies such as academic detailing, automated performance feedback, and using electronic medical record data to provide feedback, and is helping build an evidence base in this area.[8-11] Directives and performance measures from the National Committee on Quality Assurance (NCQA) and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) have also had a powerful influence. For example, the new JCAHO requirement to provide advice and

[*] The 5 A's represent the model for brief cessation intervention: Ask, Advise, Assess, Assist, and Arrange.

counseling for specific hospital admission diagnoses (acute myocardial infarction, congestive heart failure, and community acquired pneumonia) has fostered systems changes in many inpatient settings. A JCAHO requirement of advice and counseling for tobacco cessation for all hospital admissions would have a powerful and positive impact on institutionalizing tobacco cessation treatment as a standard of care in the inpatient setting. Yet, many challenging questions remain, including:

- How do we sustain system level changes in an environment where clinicians are overloaded with information?
- When clinicians are asked to engage in so many different interventions, how do we ensure that tobacco use is addressed in a consistent manner?

In summary, Dr. Fiore stated that there is now a growing and robust body of evidence that demonstrates the potential for systems-level changes to shape a consistent approach to treatment of tobacco dependence. However, he cautioned that systems-level change does not occur in a vacuum. It is important that we truly integrate and institutionalize these changes so they become more than just the "flavor of the month." We can accomplish this by consistently measuring and evaluating systems changes. Dr. Fiore closed by noting that the US Public Health Service will begin a process to update the 2000 Clinical Practice Guideline in the coming months; and, when that occurs, all should consider sharing their ideas and insights to help inform this process.

Panel 1: Systems Change Innovations for Tobacco Control

Each of the three panelists addressed a particular question in his or her opening remarks. The questions follow the panelist's name.

Susan Swartz, MD, MPH, *Director*, *Center for Tobacco Independence, Maine Medical Center, Portland, ME*
Question*: Both the 1996 and 2000 guideline delineated 6 systems-level strategies. Have these strategies fostered the delivery of evidence-based treatment and how?*

Dr. Swartz commented on the "quantum leaps" that have occurred in tobacco dependence treatment including many outside the area of clinical care — quitlines, state tobacco control programs, increases in cigarette taxes and smoking bans, and growth in professional training programs in a number of states. Organizations such as the North American Quitline Consortium and the Association for the Treatment of Tobacco Use and Dependence have helped to establish standards of care and increased the capacity to deliver intensive treatments.

The Public Health Service guideline provided the foundation upon which Maine has built its successful tobacco treatment initiative. The guideline has provided

credibility, concrete strategies, and a sense of optimism to those striving to effect systems changes. Following guideline recommendations, Maine developed a training program for tobacco professionals, established a quitline, and offers free nicotine replacement therapy to smokers. The guideline served as an authority supporting Maine's successful advocacy for 100% coverage for both cessation medications and counseling for employees. In addition, guideline-based changes in Medicaid benefits have led to increasing use of at least one cessation medication per year by 20 to 40% of this population of smokers. However, cessation coverage is not sufficient to increase utilization. Contextual factors also play a role in the adoption of guideline recommendations. Maine employs dissemination and direct marketing strategies to ensure that smokers and those clinicians who treat them are aware of these benefits.

Unfortunately, pitfalls may be associated even with successful systems changes. Public health interests and healthcare delivery systems do not always intersect in instrumental ways. For example, following the receipt of MSA funds, Maine chose to offer a quitline and free nicotine patch therapy to all state residents. This program has been well utilized, but has had the unexpected consequence of acting as a disincentive for employers and other insurers to cover evidence-based cessation treatment.

Dr. Swartz enumerated several challenges to be met in the field of health behavior change:

- *Broadening the 5 A's to include multiple risk behaviors instead of tobacco use alone*: As negative value judgments about smokers increase (e.g. higher health insurance premiums for smokers; threats to the hiring or continued employment of smokers by some organizations), an emphasis on multiple risk behaviors may encourage better partnerships between patients and clinicians.
- *Creating better measures to assess improvement in behavior changes:* Although we are doing well with the first two of the 5 A's, poor performance in the areas of *assess*, *assist*, and *arrange* may be due to misunderstanding the nature of relapse, viewing it as a failure of treatment rather than an almost universal aspect of the quitting process.
- *Clarifying the relationship between improved health and cost outcomes:* Employers and insurers will welcome evidence that smoking cessation lowers healthcare costs, decreases absenteeism, and increases productivity.

***Jack Hollis, PhD**, Associate Director, Kaiser Permanente Center for Health Research, Portland, OR*
***Question**: Discuss the fit of the systems-level approaches outlined in the 2000 guideline with current clinical practice. Are there opportunities for improvement or refinement? Are there emerging systems changes or clinical practice issues that merit further research?*

Dr. Hollis likened the current progress in tobacco dependence treatment to being part of a cultural revolution, although we are only in the middle of it. Recent findings from the Cancer Research Network (CRN) demonstrate that guideline recommendations are not always easily translated into practice. The CRN surveyed its member health plans (nine nonprofit HMOs) on their tobacco control policies and delivery of cessation services. All of the HMOs had established tobacco control policies that have grown increasingly comprehensive. In concordance with the guidelines, nearly three-quarters of patients reported being asked about smoking and advised to quit — 74% and 71%, respectively. Implementation diminished thereafter with 56% assessed regarding their interest in quitting, 49% receiving some sort of cessation assistance, and only 9% having follow-up phone calls or visits arranged.[12]

One challenge is how to improve the delivery of all 5 A's. Some individuals and groups are recommending a streamlined model consisting of 2 A's and an R[†]. Such a model may not be sufficient to ensure that smokers are linked to the ongoing support they need to increase quit rates. This may necessitate a change in the current practice of medical care. Several things may facilitate this change:

- *Good evidence of the return on investment (ROI):* Some models and simulations have been published so far, but there is not sufficient evidence of the downstream effects of population level cessation interventions and changes in medical care costs.
- *Electronic medical records:* These tools will greatly facilitate clinician intervention by enabling clinicians and systems to track patients' stage of change and easily link patients to quitlines or other sources of care.
- *Detailed, specific procedures and training programs for the last 3 A's:* The guideline specifies clear, easy-to-follow steps for asking about tobacco use and advising patients to quit. Specific procedures for assessing, assisting, and arranging follow-up are less well specified. These procedures should be backed by incentives and followed by performance monitoring and feedback.
- *Decreased patient barriers such as co-pays*. Research indicates that barrier-free access to cessation treatment improves utilization.

Dr. Hollis called for additional research in two areas that are not yet well understood: teen smoking cessation, as there is minimal evidence suggesting what types of interventions will be effective with teens; and cessation interventions delivered in the dental office, which may be a good venue for cessation given the preventive nature of dentistry, the length and periodicity of dental visits, and the captive audience; however, sufficient evidence regarding successful interventions is lacking.

[†] Variations on the 5 A model include 2 A's and an R (Ask, Advise, Refer) or 3 A's and an R (Ask, Advise, Assess, Refer).

***John Hughes, MD**, Professor, Department of Psychiatry, University of Vermont*
***Question**: Are there emerging systems-level strategies or approaches that have been evaluated that should be considered as part of a possible PHS guideline update and if so, what are they?*

Dr. Hughes described the potential impact of two data-based areas he believes should be included in an updated guideline:

- *Computerized decision support systems*: Two large meta-analyses published in 2005 in both *JAMA* [13] and in *BMJ* [14] concluded that decision support systems can effect changes in physician behavior. Implementation of these systems is especially compelling given that young clinicians and clinicians-in-training are comfortable with such electronic systems and do not expect to remember complex medical information without these supports. Patients, too, expect clinicians to review materials and use such tools in their care.
- *Proactive approaches to smokers identified through patient databases*: The physician visit is not the only place to interact with smokers. In reality, accumulated events and reminders lead to quitting smoking. Proactive contacts, or "cold calls", allow these many prompts to smokers to take action. Evidence exists that proactive calls to smokers who were not even contemplating quitting resulted in 10% point prevalence abstinence after one year.[15,16]

Although more research is needed to provide a strong evidence base for these strategies, two other areas to consider are:

- *An American Association of Smoking Cessation Counselors*: There are two groups that truly effect changes in the U.S. medical system — patient advocacy groups and professional guilds. Smoking cessation needs to be established as a field. One way to do that is to establish key opinion leaders or cessation experts within each medical school. Without a cadre of professionals who demand treatment change, the wrong message is given to medical students about tobacco dependence.
- *A Smoking Cessation Patient Advocacy Group*: Such a group may help spur changes in attitudes toward tobacco dependence and its treatment, particularly the attitude that smokers should be able to quit without help.

Discussion

Four areas of interest emerged in the discussion session: 1) the 5 A model, 2) the use of incentives to promote the 5 A's, 3) capturing young adults and uninsured populations, and 4) cessation in developing countries.

The 5 A Model:

There are challenges in implementing the 5 A model in real-world settings. Suggestions for modifying or strengthening the model included:

- Recognizing that although the 5 A model emerged from a strong evidence base, it cannot always be practiced by every clinician with every smoker. Models based on 2 A's and an R or 3 A's and an R may work with careful application. It is essential that smokers be assessed for their interest in quitting if referrals to other services are to prove fruitful.
- Expanding the concept of *assess* to include patient willingness to accept quitline referral or to accept cessation medications. Assessment should also include the clinician assessing, for the patient, the ways in which he or she can help the patient quit smoking.
- Greater use of the dental setting to initiate referrals for patients before they leave the dental office.
- Modification of the third A, *assist*, into two parts: *refer* and *prescribe*. In one setting, use of a prescription prompt and a fax-to-quit program increased guideline implementation.
- Increased use of dedicated staff for behavioral interventions.
- Further research on the potential of proactive telephone contacts, or "cold calls" to smokers, including the use of patient databases and any privacy barriers that may exist.
- Careful consideration of the matrix against which outcomes are judged. The population denominator used will affect impact rates.

The use of incentives to promote the 5 A's:

Research indicates that cessation is more readily addressed when patients are seen for smoking-related diseases than for non-smoking related visits. A number of systems changes can help motivate clinicians to intervene with all smokers:

- Facilitating clinician reimbursement for cessation counseling. This has become easier through Medicare and is improving among other billers.
- Motivating the entire health care team to address cessation with strategies such as including questions on smoking in board exams to increase the knowledge of new clinicians.
- Making cessation advice an ongoing quality indicator. Research indicates that consistent measurement of quality indicators increases interventions.

Capturing young adults and uninsured populations:

Clinicians need to investigate opportunities and strategies to address cessation among these two populations.

- Two-thirds of 14 to 17 year olds are seen by primary care physicians each year and 82% percent within 2 years providing opportunities for prevention as well as intervention.
- Teen quitlines, already established by one state, can help reach adolescents outside the clinic setting.
- Ongoing research on the treatment of adolescent and young adult tobacco users will ultimately require wider, nontraditional, and population-based approaches.
- More research on return on investment (ROI) is needed to convince businesses of the value in helping employees quit smoking. This may help reach persons for whom cost is a barrier to cessation treatment.
- Training mid-level providers as an adjunct to physicians can increase the reach of interventions to neglected populations. The guideline is directed to clinicians, not just physicians, because of the powerful evidence that dentists, pharmacists, nurses, and other professional providers can effectively implement the guideline.

Cessation in developing countries:

The guideline cannot completely address cessation issues in developing countries faced with almost prohibitive costs for cessation medication. The best hope for now will be reliance on broad, population-based strategies to promote cessation. These include:

- Raising the cost of tobacco.
- Increasing national education efforts.
- Establishing country-wide quitlines.
- Banning promotion and marketing to youth.

Overview: Health Systems Innovations for Tobacco Control: Application to Other Behavioral Risk Factors
Sue Curry, PhD, Director, Institute for Health Research and Policy, University of Illinois at Chicago

Health behavior modification is essential to meet national health goals and to help address surging health care costs. Dr. Curry discussed reasons why the accomplishments of systems-level change in tobacco control should be applied to other health risk behaviors:

- Five of the ten leading indicators in the Healthy People 2010 Initiative are health behaviors.
- Modifiable lifestyle factors account for approximately half of all premature deaths in the United States.
- Seventy percent of total health care spending goes for preventable diseases.
- Sixty percent of adults have two or more behavioral risk factors.

- Among smokers, multiple risk behaviors are common; 46% of smokers are overweight or obese, 61% meet criteria for being inactive, and 34% meet criteria for risky drinking.

A significant amount of progress has been made in treating tobacco dependence in the last decade. Identification of tobacco use among patients now exceeds identification of other behavioral risk factors. In a recent National Health Interview Survey (NHIS), 76% of smokers were screened during their last clinical visit compared to 62% of overweight or obese patients and 60% of those who were risky drinkers. In the 1990s, only about half of smokers reported being advised to quit. There was one clinical practice guideline, 24 states offered Medicaid benefits for some form of cessation treatment, and four states had quitlines. One HEDIS tobacco measure existed and 15% of health plans reported being able to identify smokers. Ten years later, 62% of smokers report physician advice to quit. Several evidence-based clinical guidelines exist. Forty state Medicaid programs cover cessation treatment as do Medicare and the VA. Forty-two states now have quitlines and a national portal number, 1-800-QUITNOW, exists and seamlessly links any smoker in the U.S. to telephonic cessation assistance. Three HEDIS tobacco measures exist and 72% of health plans report being able to identify smokers among their members. In addition, there is a growing body of evidence supporting systems-level changes. Several catalysts helped foster a more comprehensive approach to tobacco dependence treatment:

- Recognition of the enormous burden of mortality and morbidity from smoking.
- Availability of evidence-based treatments.
- Clinical guidelines with a focus on innovative systems change.
- Organization of systems of care to improve quality and outcomes.
- Prioritization at the leadership level.
- Initiation of academic and health care partnerships.
- Demand from stakeholders and policy and regulatory bodies.

Without these catalysts, it is unlikely that we would have seen many gains in the delivery of comprehensive tobacco dependence treatment.

There are promising trends at all levels of healthcare that may foster addressing multiple health risk behaviors in the future. At the organizational level, there is some movement from the acute care paradigm to that of chronic disease care. There is now a greater commitment to evidence-based guidelines. Emerging clinical information systems (e.g., electronic medical records), healthcare system report cards and a focus on quality of care and patient satisfaction can foster system changes. At the practice level, there are vital signs, the electronic medical record and other clinical information systems to increase access to smokers and to provide performance feedback. There is also effective cessation

treatment at the individual level including pharmacological and psychological therapies and many linkages to behavioral support.

A great deal has been learned regarding the treatment of tobacco dependence and how to implement systems-level changes to facilitate delivery of these treatments. This represents a tremendous opportunity to begin to apply these lessons learned from tobacco to other health risk behaviors.

There are, of course, remaining challenges.

- *The culture of care at the organizational level*: Addressing health behaviors is usually omitted from medical professional training. Discussion of health behaviors must be integrated into the disease management infrastructure.
- *Constricting resources*: Expansion of insurance coverage and reimbursement won't improve without increasing external demands for these services.
- *Time constraints:* How do clinicians address even more health behavior risks in limited clinical encounters? Effective screening algorithms are essential to facilitate intervention.
- *Prioritization among risk factors:* If 60% of patients have multiple risk factors, it will be important not to overwhelm patients. We will need to consider shared decision-making strategies and ways of selecting among evidence-based treatments.
- *Integration of long-term intensive treatment into the primary care system:* Brief interventions are unlikely to result in lasting changes in health risk behaviors. Long-term intensive treatment can help sustain change; strategies such as telephone follow-up may be feasible to integrate into existing primary care systems.
- *Patient expectations:* Creating a demand for making behavioral change part of the health visit conversation is a tremendous challenge. Learning how to activate patients and manage expectations will be essential.

All of these challenges offer fertile ground for health systems-based studies. As researchers, we need to leverage what has been learned and extend the evidence base to include multiple health risk behaviors. Treatment outcome studies, evaluation of innovative office systems, insurance benefit studies, quality improvement studies and research on health care costs, utilization, and return on investment will be needed. Although research funding is limited, there are still opportunities through the NIH and other funders.

In summary, Dr. Curry noted many areas in which research is needed. It will be important to understand how information technology can facilitate evidence-based prevention and management. We will need to test interventions within the changing healthcare delivery system and then produce efficient models to

disseminate and implement these interventions into public health and clinical practice settings.

Panel 2: Applying Health Systems Change Innovations for Tobacco Control to Other Behavioral Risk Factors

Each of the three panelists addressed a particular question in his or her opening remarks. The questions follow the panelist's name.

***Larry Green, MD**, Director, Prescription for Health, Department of Family Medicine, University of Colorado Health Sciences Center*
***Question**: Where is future research needed? Can these research opportunities lead to a new research agenda?*

Dr. Green described the importance of addressing multiple health risk behaviors, using practice redesign strategies as the driver of change. Since the majority of the population has two or more health risk behaviors, if systems do not begin to address multiple health risk behaviors, it is possible that these behaviors will not be addressed at all. As we frame our future research efforts, Dr. Green identified seven areas for further understanding and innovation:

- *The medical home*: The medical home is where a patient seeks care regardless of his or her health complaint. The health care team at the medical home – not an individual clinician - is responsible for providing and coordinating care. It's a location of integration and its cardinal characteristic is asynchronous care.
- *TransforMed*: This is a newly-formed corporation whose goal is to help primary care practices transform from their old model of practice to a new model — that of the medical home. A national demonstration will be launched on June 1, 2006. This represents an opportunity to conduct cutting-edge research in partnership with practices that are evolving into medical homes.
- *Chronic care model* (CCM): There is empirical evidence from the RWJF-funded Prescription for Health initiative that primary prevention and chronic disease management have substantial overlaps. The same steps that are needed to manage diabetes, congestive heart failure, asthma and depression are the same steps that are needed to foster and sustain tobacco cessation.
- *Practice-based research networks (PBRNs):* PBRNs are funded by the National Institutes of Health (NIH) and the Agency for Healthcare Research and Quality (AHRQ). These are networks of clinicians and clinics that are eager to partner with researchers to address real-world questions and translate research into practice.
- *Maintenance of certification (MOC):* Maintenance of certification (MOC) programs are growing in number. These programs are designed to enhance clinicians' knowledge and skills and to foster lifelong learning. If

systems change research issues can be integrated into MOCs, this can represent a new opportunity for change.

- *Interactive voice recording (IVR):* Early evidence suggests that computers can successfully counsel patients. Prescription for Health has crafted IVRs for four health behaviors and will launch a pilot of this technique in April, 2006.
- *Continuity of care record (CCR)*: This record is a data standard for the electronic health record. In 10 years, it is likely that everyone will carry his or her own personal one-page CCR with them. Smoking status can be entered into the CCR and then tracked. The CCR may prove to be a practical way to generate patient demand.

Dr. Green closed with a reminder that much of what we do in primary care and frontline practice is becoming obsolete. Imagination and risk-taking are called for as we participate in far-reaching practice redesign.

Patrick McBride, MD, MPH*, Professor of Medicine and Family Medicine, University of Wisconsin School of Medicine and Public Health*
Question*: What are the opportunities and challenges to applying lessons learned from tobacco control to other behavioral risk factors*? *Is there an evidence base supporting the application across risk factors? Where is it strongest?*

Dr. McBride affirmed the need to create broader clinical guidelines covering multiple risk behaviors to help providers translate research into practice. Broader guidelines can be translated into strategies to improve efficiency without increasing the time burden for clinicians and they will welcome the systems changes needed to accomplish this.

Perhaps one of the greatest opportunities to apply lessons learned from tobacco control to other behavioral risk factors is at the critical intersection of obesity and smoking. Sixty-five percent of adults are overweight and 31% are obese. In addition, 24% of all adults have metabolic syndrome or insulin resistance and this is a serious health problem. It has always been known that smoking increases insulin resistance; but smoking cessation increases weight gain. Weight gain has been and continues to be a significant barrier to cessation for men and women. Ultimately, smokers face a dilemma – there are both health benefits and side effects of quitting. This is a collision between approaches to two health behaviors that need to be considered together rather than separately.

It is imperative to study the effect of smoking cessation on critical metabolic factors such as insulin levels, C-reactive protein, lipid changes, and inflammatory parameters. Post-cessation changes in atherosclerosis need to be measured to determine if these are short- or long-term physiological changes.

We need to consider how multiple behavioral interventions are designed because people will present with multiple risk factors. For example, how do we minimize weight gain? Are there insulin sensitizers? Are there exercise programs? An approach that relies on referrals will likely fail. In large practice systems, there may be referral resources; but in many places, especially rural practices, there is nowhere to refer. For interventions that conclude with "refer", it is likely that nothing lasting will be achieved. There will be little follow-up, and follow-up is the greatest predictor of success.

One of the most significant lessons learned from tobacco control systems change is the potential of the vital sign to change provider behavior. This knowledge should be extended to other risk behaviors. Waist circumference should become a vital sign because it is highly correlated with metabolic syndrome. This and body mass index (BMI) measures can be easily accommodated in computerized systems. From this information, 5 A-type interventions related to behavioral change and lifestyle recommendations can be designed. Using a 5 A framework, provider interaction, provider advice, and provider education for obesity will be designed because clinicians are looking for the same type of intervention as that for tobacco.

In closing, Dr. McBride offered two areas to consider for future research. First, our efforts must be focused on changing systems – not individual clinicians. Second, while we have made tremendous progress in working with managed care and large physician groups, there are two groups that have been relatively ignored to date - the multiple small practices that exist throughout the states and specialists. It's past time for us to extend our work into these systems.

***C. Tracy Orleans, PhD**, Distinguished Fellow and Senior Scientist, The Robert Wood Johnson Foundation*
***Question**: What have we learned from tobacco control that can lead to a new research agenda?*

The many struggles and achievements in the field of tobacco control now inform what is known about health systems change, the need for such change, and the kinds of paradigm shifts that will enable these changes. Even as knowledge is applied to other health risk behaviors, improvements are still needed in tobacco. Dr. Orleans delineated the five paradigm shifts that she believes will engender clinical and research breakthroughs.

- *Policy initiatives beyond the health care system:* To fully create and harness support for patients, policy changes such as clean indoor air laws, tobacco tax increases, and media campaigns must be integrated into the work to promote cessation. Policy initiatives around tobacco cessation have resulted in huge population impacts and the same will be true for other health risk behaviors. We can never work just in the health system if we expect to make enduring changes.

- *Multiple health risk research and interventions:* There are opportunities to devise new paradigms for multiple health risk research and interventions. Two recommended resources are the 2004 special issue of the *American Journal of Preventive Medicine* titled, "Addressing Multiple Behavioral Risk Factors in Primary Care" and the NIH Office of Behavior and Social Science Research (OBSSR) website, http://obssr.od.nih.gov/
- *A focus on external validity instead of internal validity:* Research needs to be conducted in real-world settings. Programs such as ATMC, the CRN and Prescription for Health were initial contributors to this research. Conducting research in real-world settings will require building an enduring relationship infrastructure with patients, clinicians, and consumers. The end result will be innovations that are designed for dissemination. If we hope to surpass the tobacco industry's interest in smokers, we need to be committed to them for the long term — not just to achieve abstinence, but to continue to offer services to maintain abstinence.
- *Shift in emphasis from discovery and development to delivery:* Only 55% of Americans are getting the right health care and less than that receive the right health care for health behavior change. For every dollar spent by the NIH to develop effective interventions, one cent is spent on understanding how to deliver these interventions. There is a science of health system change that needs to be utilized to help ensure that our best clinical changes are implemented. One measure that will be helpful is the Health Plan Employer Data and Information Set (HEDIS) measure that has been added to almost all pay-for-performance data measurement sets and has been adopted by the American Board of Medical Specialties (ABMS) for recertification.
- *Transdisciplinary perspective:* A team approach will enable us to transform the external environments and make the changes in health care systems that will permit implementation of the evidence-based interventions that have been developed over two decades.

Discussion

Four topics emerged in the ensuing discussion: 1) Insurers and their interest in providing cessation benefits, 2) New methods for delivering care, 3) Addressing disparities and reaching the uninsured, and 4) Prospects for consumer-driven health care.

Insurers and their interest in providing cessation benefits

Because employees often change employers before the long-term health consequences of smoking are apparent, insurers have not been wholly committed to offering cessation benefits. However, that trend is changing among insurers and employers. A number of strategies can facilitate this trend:

- Working directly with the medical directors of local managed care organizations.
- Designing programs to help insurers achieve their desired outcomes.
- Working with state governments to bring about major policy changes.
- Striving to change the current culture of care that maintains the bar higher for tobacco outcomes than for other health conditions. Even though people leave health plans frequently, they are still treated for hypertension, hyperlipidemia, and other longstanding conditions and this should apply to tobacco as well.

New methods for delivering care

A new paradigm of care is needed if we are to avoid foundering in the old systems of the 20th century. This will involve new ways to deliver and finance care:

- Telephone-based behavioral counseling services are being developed to address other health behaviors with counselors cross-trained to handle various health issues.
- Health care access that does not require interfacing with a clinician will be needed in order to successfully address multiple health risks.
- Roles may be established for prevention case managers who will help patients recognize the multiple risks they're dealing with, prioritize their needs, triage them, and help them deal with ambivalence about change, devise a tailored action plan, and provide sustained support.
- Policy changes are needed that will finance new models of preventive care delivery with behavioral counseling as a cornerstone.

Addressing disparities and reaching the uninsured

The distance between researchers and smokers has grown over time and it is now imperative that we reacquaint ourselves with the dilemma of poverty and multiple health risks in the U.S. We will need to design systems of care that address the following challenges:

- *The clustering risk factors of poverty and SES*: Those with low income and education and multiple risk behaviors require more intensive therapies, yet have less or almost no access to appropriate care.
- *The rising number of uninsured individuals*: More than 44 million persons in the United States are uninsured and 47% of smokers are uninsured compared to 24% of nonsmokers.
- *Designing tobacco dependence treatments that will integrate well with treatment of other risk behaviors.*

Prospects for consumer-driven health care

As employers begin to place more of the healthcare financial burden on consumers, we are faced with changing dynamics in the marketplace.

- There has been much progress with Medicaid, but, even now, the structure of Medicaid is undergoing fundamental changes as states are given more latitude to reform Medicaid.
- We need to examine the impact of consumer-driven health care. One of the first things that may be neglected with consumer-driven health care is prevention.
- Much of our potential impact on tobacco use lies in prevention and we will need to continue not only to disseminate the existence of cessation benefits, but we will have to work to preserve them.
- Further research on ROI is needed to make the business case for full coverage of cessation benefits

Summary

The Addressing Tobacco in Healthcare forum on Translating Health Services Research into Practice and Policy highlighted the many challenges to be faced in the 21st century. Although we have made significant progress in tobacco control, we cannot rest on these accomplishments if we hope to preserve them. The changing face of healthcare requires us to forge new paradigms, new collaborations, and new interventions. It is essential to apply what we have learned about tobacco to the multiple health behavior risks of the population, without weakening our focus on tobacco cessation. It is essential that we continue to evolve from physician-patient interventions to healthcare team-patient interventions. It's imperative that we become proactive in reaching patients, especially the disenfranchised, that we convince and enlist health insurers and policy makers in this endeavor, and that we investigate and embrace new and emerging technologies to facilitate continued achievement of our public health goals.

References

1. Fiore MC, Jorenby DE, Schensky AE, Smith SS, Bauer RR, Baker TB: Smoking status as the new vital sign: Effect on assessment and intervention in patients who smoke. Mayo Clinic Proc 1995, 70:209-213

2. Chang HC, Zimmerman LH, Beck JM: Impact of chart reminders on smoking cessation practices of pulmonary physicians. Am J Respir Crit Care Med 1995, 152:984-987
3. Robinson MD, Laurent SL, Little JM, Jr.: Including smoking status as a new vital sign: it works! J Fam Pract 1995, 40:556-561
4. Ahluwalia JS, Gibson CA, Kenney RE, Wallace DD, Resnicow K: Smoking status as a vital sign. J Gen Intern Med 1999, 14:402-408
5. Piper ME, Fiore MC, Smith SS, Jorenby DE, Wilson JR, Zehner ME, Baker TB: Use of the vital sign stamp as a systematic screening tool to promote smoking cessation. Mayo Clin Proc 2003, 78:716-722
6. Boyle R, Solberg LI: Is making smoking status a vital sign sufficient to increase cessation support actions in clinical practice? Ann Fam Med 2004, 2:22-25
7. McPhillips-Tangum C, Bocchino C, Carreon R, Erceg C, Rehm B: Addressing tobacco in managed care: results of the 2002 survey. Prev Chronic Dis 2004, 1:A04
8. Swartz SH, Cowan TM, DePue J, Goldstein MG: Academic profiling of tobacco-related performance measures in primary care. Nicotine Tob Res 2002, 4 Suppl 1:S38-44
9. McAfee T, Grossman R, Dacey S, McClure J: Capturing tobacco status using an automated billing system: Steps toward a tobacco registry. Nicotine Tob Res 2002, 4 Suppl 1:S31-37
10. Bentz CJ, Bayley KB, Bonin KE, Fleming L, Hollis JF, Hunt JS, LeBlanc BH, McAfee T, Payne N, Siemienczuk J: Provider feedback to improve 5 A's tobacco cessation in promary care: A cluster randomized clinical trial. Nicotine Tob Res (in press)
11. Jamtvedt G, Young JM, Kristoffersen DT, Thomson O'Brien MA, Oxman AD: Audit and feedback: effects on professional practice and health care outcomes. Cochrane Database Syst Rev 2003:CD000259
12. Quinn VP, Stevens VJ, Hollis JF, Rigotti NA, Solberg LI, Gordon N, Ritzwoller D, Smith KS, Hu W, Zapka J: Tobacco-cessation services and patient satisfaction in nine nonprofit HMOs. Am J Prev Med 2005, 29:77-84
13. Gary AX, Adhikari NK, McDonald H, Rosas-Arellano MP, Devereaux PJ, Bevene J, et al.: Effects of computerized clinical decision support systems on practitioner performance and patient outcomes: A systematic review. JAMA 2005, 293:1223-1238
14. Kawamoto K, Houlihan CA, Balas EA, Lobach DF: Improving clinical practice using clinical decision support systems: a systematic review of trials to identify features critical to success. BMJ 2005, 330:765
15. Carpenter, MJ, Hughes, JR, Solomon, LJ, Callas, PW: Both smoking reduction and motivational advice increase future cessation among smokers not currently planning to quit. Jour Consult Clin Pyschol 2004, 72:371-81

16. Velicer, WF, Prochaska, JO, Redding, CA: Tailored communications for smoking cessation: Past success and future directions. Drug Alcohol Rev 2006, 25:49-57