

Baylor Health Care System's Office of Tobacco Education and Research: inception and evolution

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If we do not act decisively, one hundred years from now our grandchildren and their children will look back and seriously question how people claiming to be committed to public health and social justice allowed the tobacco epidemic to unfold unchecked (1).

Nearly 40 years have elapsed since the surgeon general's report on smoking and health documented the causal relation between cigarette smoking and cancer and other life-threatening diseases. Within these 4 decades, a vast amount of scientific evidence was produced proving that exposure to tobacco is responsible for numerous problems including but not limited to lung and other cancers, cardiovascular disease, chronic obstructive lung disease, low birth weight, asthma, and respiratory infections (2, 3). For these reasons, tobacco use is the leading preventable cause of death and disability in the USA (2) (Figure 1). Tobacco use is the reason for 1 of every 5 American deaths each year (2), claiming more victims than AIDS, alcohol, motor vehicle collisions, murder, illicit drugs, and suicide combined (Figure 2).

Despite its well-documented detrimental health effects, the prevalence of tobacco use has plateaued at a significant level. One of 4 adults in the USA smokes cigarettes (7), most of whom began using tobacco before the age of 18 years. The progression of tobacco use from childhood to adulthood is a function of nico-

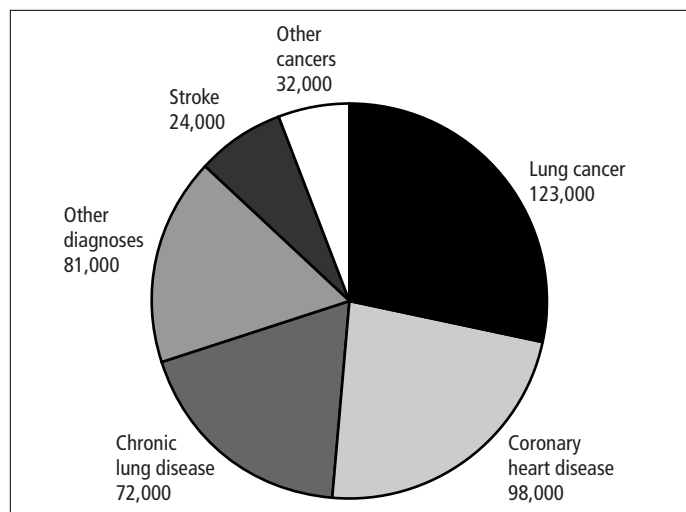


Figure 1. Annual number of US deaths attributed to cigarette smoking, 1990 to 1994. Source: reference 4.

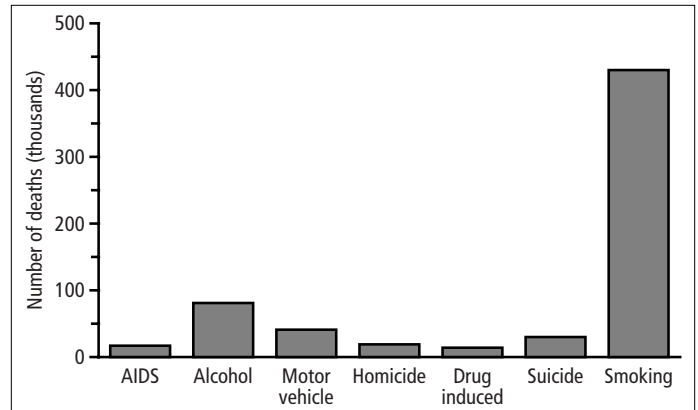


Figure 2. Comparative causes of annual deaths in the USA. Source: references 5–6.

tine, a highly addictive drug found in all tobacco products. Its potency, greater than that of opiates, amphetamines, or cocaine (8), is what makes quitting so difficult. Following a first quit attempt, only a small number of tobacco users are able to refrain from previous tobacco-use habits. Most must make multiple quit attempts before conquering this addiction (9). This is why nicotine dependency has been classified as a chronic disease. The depiction of tobacco use as a chronic condition allows health care providers to understand its relapsing nature and the requirement for ongoing, rather than acute, care (10).

Hospitals are ideal settings to initiate a tobacco treatment process. One in 4 of the 33 million Americans hospitalized each year uses tobacco (11). Furthermore, it is well known that physician-delivered cessation messages are primary predictors for stopping tobacco use (12, 13). Research shows evidence of increased abstinence rates when multidisciplinary teams of clinicians work together to encourage tobacco-free living (9). Ironically, <50% of smokers report that their physicians talked to them about tobacco use (14–16). Even if health care providers were to more frequently counsel their patients, there is a paucity of nicotine treatment programs to which they might refer.

In 1997, staffs of the Baylor University Medical Center (BUMC) cardiac rehabilitation program (postcardiac event ex-

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ercise and education typically lasting 4 to 6 weeks) and Baylor Health Care System (BHCS) Leap for Life program (cardiovascular disease risk factor education and follow-up) noted that their participants had no program to attend for nicotine addiction counseling and education. For this reason, staff members attempted to identify currently operational BHCS tobacco cessation services, there were none. The constraints of daily health care delivery took priority over the possibly tedious development of a tobacco cessation program.

In response to this patient care chasm and the overwhelming evidence of tobacco-related health risks in patients with cardiovascular disease, the BHCS Anti-Tobacco Task Force (ATTF) was established in 1997. The purpose of this committee was to identify effective tobacco cessation interventions and determine if such components were available in the Dallas–Fort Worth metroplex. The task force, which originally consisted of members from BHCS vascular and clinical prevention services, Leap for Life, and cardiac, vascular, and pulmonary rehabilitation, met weekly for approximately 10 months. Membership grew until, in the final stages, the task force comprised multidisciplinary staff members (including administrative and physician representatives) from across the entire health care system.

For approximately 1 year, ATTF members developed a comprehensive tobacco cessation knowledge base. Information was gathered by conducting exhaustive literature reviews, listening to guest speakers, examining existing programs, and attending conferences such as the American Society of Addiction Medicine and the Mayo Clinic Nicotine Dependence Seminar. The ATTF deduced that tobacco use, although a chronic disease, can be successfully managed.

Over the ensuing years, a model for the desired program was created. The ideal program would include the following components shown to improve tobacco abstinence rates: identification of stage of readiness to change behavior, pharmacologic treatment, follow-up care, multiple program modalities, a physician team leader, multidisciplinary staff, and psychiatrist access. Stage of readiness to change behavior (i.e., precontemplation, contemplation, action, or maintenance), determined via individual counseling, would guide the intensity of the intervention (17). Nicotine pharmacotherapy (nicotine gum, inhaler, nasal spray, and patch and bupropion), which significantly improves the rate of long-term smoking abstinence, would be offered (9). In fact, 1 year following treatment, 20% to 25% of tobacco users who obtain a combination of pharmacotherapy and behavioral support remain tobacco free (18).

Follow-up care (i.e., number of contacts with a patient) is another predictor of the success of a tobacco treatment plan. As mentioned previously, initial cessation messages during which publications or a video is provided are important, but they only initiate the process. It has been suggested in the literature that greater numbers of sessions and greater time with participants are the strongest predictors of success (9). An additional crucial factor in tobacco cessation program planning is the availability of multiple program modalities. Delivery of smoking cessation interventions by telephone, group, and individual counseling methods increases abstinence rates and should be promoted (9).

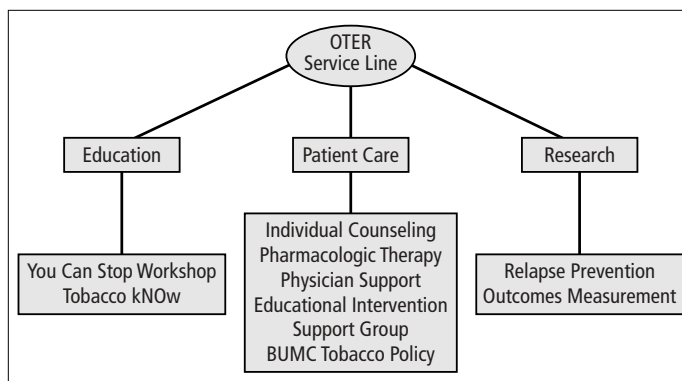


Figure 3. Service line of the Office of Tobacco Education and Research.

Along these lines, successful models for tobacco treatment include physician team leaders and a multidisciplinary staff, including psychiatrists. Psychiatrist involvement is crucial because psychiatric disorders are more common among smokers than in the general population. Many who seek smoking cessation services have a history of depression. Physiological effects of nicotine withdrawal often affect the pharmacokinetics of certain psychiatric medications, so patients must be closely monitored by a physician (9).

After examining currently available community programs and studying successful tobacco cessation program models, ATTF members agreed that many programs in the Dallas–Fort Worth metroplex provided some, but not all, of the necessary program components. Consequently, the ATTF decided to develop a BHCS tobacco treatment strategy. During the same general time frame, the federal government, individual states, smokers, and victims of secondhand smoke successfully sued the tobacco companies, with lawsuit awards totaling \$206 billion. Soon afterwards, the state of Texas awarded BHCS \$500,000 of the tobacco settlement money to be used for tobacco cessation programming. The support of Baylor leaders and the grant award put BHCS in a leadership position in the war against tobacco use.

BHCS responded by forming the Office of Tobacco Education and Research (OTER) in July 2000. OTER comprises a multidisciplinary team with disciplines in medicine, respiratory therapy, social work, nursing, physiology, and public health. The team vision is to make a positive difference in the lives of children and adults by crusading to eradicate tobacco use. As the only comprehensive tobacco cessation program in Dallas–Fort Worth, OTER realizes its vision by treating adults and educating children. The result is a research-based tobacco service line that includes patient care, education, and research programs (Figure 3). Each program is described in the following section.

OTER SERVICE LINE

Patient care

Individual counseling. Persons ready for a tobacco-free life might begin their treatment process in an individual counseling session with a trained tobacco cessation counselor. Counseling sessions are available in both inpatient and outpatient settings and are arranged by the physician or through self-referral. During the first counseling visit, the participant completes a tobacco use history questionnaire that covers demographics, medical history, and outcomes measurements. The counselor uses this infor-

mation to assess tobacco dependence, motivation for cessation, and stage of readiness for abstinence. Following this assessment, the counselor creates an individualized cessation plan, conferring with the participant's physician to discuss possible forms of pharmacologic therapy to ease nicotine withdrawal. Further counseling is arranged according to the specific needs of the participant.

Pharmacologic therapy. Because of the serious ramifications of nicotine addiction, nicotine replacement therapy is a fundamental component of a successful tobacco cessation service line. Nicotine pharmacotherapy increases cessation success by helping to ease the discomfort of nicotine withdrawal. It is widely reported that nicotine replacement therapy is a powerful adjunct to the cessation process. Currently available medications include bupropion (an antidepressant) and nicotine gum, inhaler, nasal spray, and patch.

Physician support. Physician supporters of the OTER program service line provide leadership and continued vision. Physician responsibilities include medical management, pharmacologic treatment recommendations, patient care, and education.

Educational intervention. OTER staff members identify tobacco users among hospital inpatients, provide tobacco cessation education, and document interventions in patient charts. The educational intervention content is typically guided by the patient's willingness to make a quit attempt. For patients willing to quit, OTER staff members propose a quit plan, provide problem-solving/skills training and social support, and recommend nicotine replacement therapy. For patients unwilling to quit, motivational techniques are used to help patients consider tobacco cessation as a future goal. For patients who have quit within 12 months of their hospitalization, OTER staff provide relapse prevention strategies. All patients are encouraged to pursue individual counseling, are given an educational packet that contains tobacco-related brochures, are provided instruction for accessing the *Guide to Stop Smoking* program on Baylor TV, and are invited to the educational workshop and support group.

Support group. For participants who might benefit from support, therapeutic relationships with peers, and an outlet to express feelings, a counselor-driven support group is available twice per month. Supportive clinical environments such as this may assist the participant in carrying out a successful tobacco cessation lifestyle plan. In a diverse group, participants join together to discuss their disease processes. Active participation by the participant's spouse, friends, and family members is also an important element of a support group and is encouraged (9).

BUMC tobacco policy. A BUMC smoking policy committee was formed in October 2000 to investigate problems that surfaced when the hospital buildings became smoke free. Oftentimes, patients, visitors, and employees must subject themselves to excessive amounts of secondhand smoke when entering the hospital facility because smokers typically congregate at hospital entrances. OTER was asked to revise the existing policy in order to improve the Baylor image and experience for patients, visitors, and employees.

Education

Educational workshop. The "You Can Stop Workshop" is a program offered every other month for individuals interested in obtaining tobacco cessation education in a group setting. Par-

ticipants are tracked from a self-assessment questionnaire that is completed prior to the workshop. Informational workbooks are provided and assessments are performed, including spirometry, carbon monoxide measurement, and blood pressure assessment. Over a 4-hour period, tobacco cessation counselors present educational topics including tobacco cessation techniques, nicotine addiction, physiology of disease, nicotine replacement therapy, stress management, and nutrition.

Tobacco kNOw. Tobacco kNOw is an interactive, hands-on, tobacco-awareness program for school-aged children. Presented primarily to sixth and seventh graders, the program presents the dangers of tobacco use, the tobacco companies' investment in youth, and media influences on health behavior. During 2000–2001, the first year in which the program operated under the auspices of OTER, Tobacco kNOw reached over 4000 students from 16 different schools. Evaluation measures, based on recommendations from the Centers for Disease Control and Prevention (5), demonstrate that Tobacco kNOw achieves its goal, which is to heighten awareness.

Students and teachers, along with the media, praise the program: The *Dallas Morning News* wrote that Tobacco kNOw reaches sixth and seventh graders

with a rapid-fire combination of skits and videos and hands-on activities. There's a pitch that hits almost everyone: For the rebels, a skit showed how tobacco companies manipulate kids into smoking to replace dying customers. For the macho boys, a gruesome video showed a former tobacco-dipping baseball player who lost half his face to mouth cancer. For the girly girls, a computer simulation showed how smoking leads to premature aging. *You look like your mother! Eewww!* For the money conscious, a skit demonstrates how a smoker blows thousands of dollars on cigarettes in high school. Throw in some smoke-damaged pig lungs, a jar of goopy tar, some close-up photos of tongue cancers and you have a very effective warning against the dangers of tobacco (19).

Research

Relapse prevention. As part of their treatment plan, participants who attend individual counseling or group education receive a 1-year relapse-prevention service that includes 5 scheduled, scripted telephone calls (i.e., 2 weeks, 1 month, 3 months, 6 months, and 12 months after the intervention), telephone counseling, and follow-up letters. In these phone calls and letters, participants are further counseled, educated, and motivated to avoid relapse. These calls also enable staff members to track outcomes in an effort to document program effectiveness.

Outcomes measurement. Measures of outcome are essential in evaluating and reporting the cost, efficacy, importance, and necessity of a tobacco cessation program. Outcomes measurement regarding tobacco use, cessation rates, and demographics are crucial for reporting program change and success. OTER staff members track outcomes on each educational component and participant within the tobacco cessation program model.

FUTURE PLANS

OTER has made significant progress in the past year. The future holds many new plans and opportunities. Operational program improvement and increased numbers of participants are 2 examples of future goals. Implementing a hospital-wide tobacco user identification process, thereby replacing tedious individual

chart audit, is one effort under way. The existing service line will expand its reach by providing a residential program on the BUMC campus and a counseling program for children. OTER will also replicate the service line's programs in the remaining BHCS hospitals, conduct research projects, and initiate the availability of free nicotine replacement therapy for BHCS employees. Outdoor cabanas (through the revised tobacco policy) will be provided for visitors and employees to use when smoking. Although interim changes will be made to the existing tobacco policy, the ultimate OTER goal is to initiate a policy that would declare BUMC a smoke-free campus.

CONCLUSION

People sometimes relapse as many as 7 times before achieving a tobacco-free life. Historically, the tobacco companies' hidden agenda has been to profit monetarily from addiction of the masses (including children) to nicotine. For the past 60 years, tobacco company chemists have been secretly manipulating nicotine and adding chemicals to tobacco to ensure addiction occurs fast. A vast number of carcinogenic chemicals, specifically ammonia, have been added to cigarette paper to make the smoking experience comparable to freebasing cocaine (a technique used by drug addicts that speeds diffusion of the drug in the lungs and then to the brain in a matter of seconds). The modern-day cigarette is nothing like the earlier leaf of tobacco rolled up in a piece of paper. Because of the combination of potent nicotine and deadly chemicals, what might be thought of as a simple cigarette is instead a highly specialized nicotine-delivery device.

Recently, after 40 people became ill and died, a commonly used lipid-lowering medication was found to be the cause of a deadly kidney disease. The drug was immediately recalled. Eighteen adolescents in Plano, Texas, died from heroin overdoses in the late 1990s. Involved drug dealers were swiftly imprisoned. Meanwhile, for the past 60 years, tobacco companies have been producing, manipulating, and selling highly addictive and carcinogenic products to the public. Each year 430,000 Americans die as a result.

In 2001, our own Texas legislators put the tobacco trial monies into the general fund, which means none of the billions of tobacco settlement money will be used for tobacco education and treatment in Texas. BHCS, through its Office of Tobacco Education and Research, is in a strategic position to make an impact on the health of the population it serves.

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