Solving complex health problems with interdisciplinary approaches

by Philip M. Farrell, MD, PhD, Dean, University of Wisconsin Medical School, and Michael Fiore, MD

As with most medical schools, the faculty of the University of Wisconsin Medical School have found that a highly effective way to address complex health problems is by creating interdisciplinary centers and institutes. Currently 20 of them exist as part of our statewide campus. Some deal with broad issues, such as the Comprehensive Cancer Center, the Cardiovascular Research Center, the Institute on Aging and the Center for Urban Population Health in Madison. Others are more focused, such as the Morris Institute for Respiratory Research, the Wisconsin Alzheimer’s Institute and the Center for the Study of Cultural Diversity in Health.

The underlying similarity, and the biggest advantage, of these organizations is that they pool resources and bring together in synergistic teams experts from a variety of different departments and disciplines, people who otherwise might never have interacted in a common effort to solve a fundamental health problem.

The Medical School’s Center for Tobacco Research and Intervention (CTRI) is one such organization. Created in 1992, it is directed by Michael Fiore, MD, UW Medical School professor of medicine. In less than a decade, Dr. Fiore has elevated the center to national stature. He has assembled a stellar team of scientists with expertise in internal medicine, clinical psychology, law, pediatrics and public health. With support from a variety of sources, CTRI aims to advance the science of tobacco dependence and its treatment, provide intervention and outreach services for children and adults, and develop policy initiatives to reduce the prevalence of tobacco use.

In 1999, the National Institute on Drug Abuse and the National Cancer Institute awarded the center a $10 million, five-year grant to study relapse, the greatest challenge in smoking cessation clinical research today. Some 20 million adults will try to quit, but only about 7 percent will be successful. Center scientists are conducting three pilot projects as well as three primary research studies to better understand the physiological and psychological reasons for relapse. One study will help clarify how negative affect and withdrawal symptoms contribute to relapse. A second study will test the effectiveness of computer-based programs to prevent relapse. And the third study will carefully track and measure the symptoms of recovering smokers.

CTRI scientists are also directing a national study that examines access to smoking cessation programs in the managed care environment. Funded by a $7 million Robert Wood Johnson Foundation grant, this project is helping identify organizational changes that can be made in HMOs to ensure that treatment is available to members. Nationwide, 15 research teams are involved.

On a national policy level, Fiore led a consortium of federal agencies to prepare the US Public Health Service Clinical Practice Guideline on Treating Tobacco Use and Dependence. A compendium of research on tobacco’s addictive nature, this definitive guideline also stresses the need to treat tobacco dependence as a chronic condition, and lists treatments that increase successful quit rates. The report also appeared last summer in the Journal of the American Medical Association.

The center sponsors many programs on the state level, most supported by funds from the Wisconsin Tobacco Control...
Board. The Tobacco Quit Line was launched this spring. The toll-free service provides extensive, practical counseling for individuals who are ready to quit and need additional resources. The Quit Line (1.877.270.STOP) expects to serve 20,000 Wisconsin residents each year.

Outreach programs established across the state by CTRI form a critical link in reducing tobacco use by helping to translate and disseminate findings to Wisconsin communities. Education and outreach specialists are located in Rhinelander, Eau Claire, Madison, Green Bay and Milwaukee. A mini-grant program provides up to $25,000 to fund individual research projects in local communities that may result in innovative strategies to reduce tobacco use. One of the grants supports studies at UW Medical School’s Milwaukee Clinical Campus, which will be featured later this year in this column. CTRI also conducts an annual survey tracking tobacco use in Wisconsin. The survey is designed to be used by clinicians, researchers, policy makers and public health professionals to fine-tune prevention and cessation programs.

The goal of all CTRI programs is to reduce tobacco use in Wisconsin and the nation. Since tobacco use is the number one cause of preventable disease and death, reducing its use will have significant health and financial consequences. Bringing the resources of an interdisciplinary center to bear on this enormous problem accelerates the achievement of the goal.