

Wellspring of Discovery **Force for Change**

CENTER FOR TOBACCO RESEARCH AND INTERVENTION 2008 ANNUAL REPORT



UW-CTRI
UNIVERSITY OF WISCONSIN
Center for Tobacco
Research & Intervention

www.ctri.wisc.edu

April 2009

UW-CTRI
UNIVERSITY OF WISCONSIN
Center for Tobacco
Research & Intervention

Our Mission

University of Wisconsin Center for Tobacco Research and Intervention

The mission of the University of Wisconsin Center for Tobacco Research and Intervention is to expand our understanding of tobacco dependence and its treatment and to use this knowledge to design and implement interventions that will significantly reduce tobacco use in Wisconsin, in the nation and beyond.



What others say...

Clinicians, healthcare policymakers, researchers and smokers benefit from UW-CTRI's innovations. These UW-CTRI innovations have contributed to improved public health in Wisconsin, and beyond.

What others say about an organization can be more illuminating than what an organization says about itself. In the past 12 months, here's what some have said about the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI):

"In 1988, as Surgeon General of the United States, I released a report highlighting the addictive nature of smoking and nicotine. That report said nicotine was as addictive as cocaine or heroin. If I were to release that report today, I would amend it. I would now say nicotine is more addictive than cocaine or heroin. That's one of the reasons that UW-CTRI's research and outreach efforts are so critical. The Center is at the forefront of our national commitment to confront nicotine addiction and reduce the health tragedy resulting from tobacco use in America."

- Dr. C. Everett Koop, United States Surgeon General (1981-1989)

"I just chatted with Krista and I gotta tell you, she is an awesome counselor. I am very grateful she is there for me. I can't wait for her next call. I thank her very much for steering me in the right direction I needed to go in."

- A Brown County Wisconsin caller to the Wisconsin Tobacco Quit Line

"If we had a UW-CTRI and a Quit Line for every public-health problem, the problems would be much easier to solve. These are valuable programs to rural and urban communities across the state."

- Steve Brenton, president of the Wisconsin Hospital Association

"Thank you for your help. I've been smokefree for six months and I feel great. My family appreciates it!"

- A former smoker who received evidence-based treatment through the UW-CTRI Smoking Cessation Clinic

"For over a decade I have had the opportunity to work closely with the UW Center for Tobacco Research and Intervention. I am always impressed and enriched by the outstanding work of the Center scientists, outreach specialists, students and professional staff. Their strong and consistent dedication to reducing the harms from tobacco has made a tremendous difference. UW-CTRI is clearly a national and international resource for evidence-based tobacco cessation."

- Dr. Susan J. Curry, Dean, University of Iowa College of Public Health and President, Society for Research on Nicotine and Tobacco

From the Director

We are pleased to share with you the 2008 Annual Report of the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI). We believe the title of this year's report, "Wellspring of Discovery, Force for Change," embodies the spirit of the work that drives us. Our researchers are, literally, a wellspring – a dynamic source of discovery for evidence-based treatments to help smokers quit successfully. Our outreach staff members carry forth this research – and that from other leaders in the field – to serve, literally, as a force for change. They influence how clinicians, health systems and policymakers intervene to help smokers quit. Through these discoveries and the changes that emanate from them, UW-CTRI makes a statewide, national and international impact. These pages describe that impact in terms of research and outreach accomplishments, grants and publications.



Dr. Michael C. Fiore

While a summary of past activities and accomplishments, this report also serves as a road map. It looks to the past while pointing towards the future. As one example, 2008 marked the final year of our second National Institutes of Health (NIH) Transdisciplinary Tobacco Use Research Center (TTURC) grant. Reaching this point in our TTURC work provides an opportunity to take stock of progress achieved. At the same time, it helps clarify the new tobacco-dependence-treatment research questions calling out to be answered in our new NIH center grant application that was completed in February 2009. As we completed these research activities, we embarked on many other policy initiatives, research studies and outreach activities.

This annual report is just made up of paper, ink and staples, yet it represents the commitment and aspirations of a dedicated cadre of researchers, outreach and administrative staff, and students who remain focused on a clear mission – to help smokers quit and thereby reduce the harms resulting from tobacco use in our society. Also reflected on these pages is the support you and others throughout Wisconsin and the nation provide – through your intellectual, collegial and financial support – you give us the opportunity and responsibility to complete this important work. We are indebted to all of our partners and so appreciate your trust that bolsters our work.

This report may trigger questions, invite contemplation or challenge thinking. We welcome all of that via info@ctri.medicine.wisc.edu. We hope we stir something in you just as we have been moved to continue our work dedicated to improving the lives of those affected by tobacco use and dependence.





Discovery

With a commitment commensurate with the costs resulting from tobacco use, UW-CTRI researchers seek breakthrough discoveries to help smokers quit successfully.



Clarifying the complex nature of nicotine addiction is a component of every research study undertaken by University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) researchers. Researchers consider tobacco dependence broadly. From the perspective of the smoker, UW-CTRI researchers have examined genetic, pharmacotherapeutic, social and behavioral aspects – just to name a few. From the perspective of the clinician and health system, UW-CTRI continues to identify how best to seize the moment when a smoker visits a primary care clinic as an unequalled opportunity to intervene.

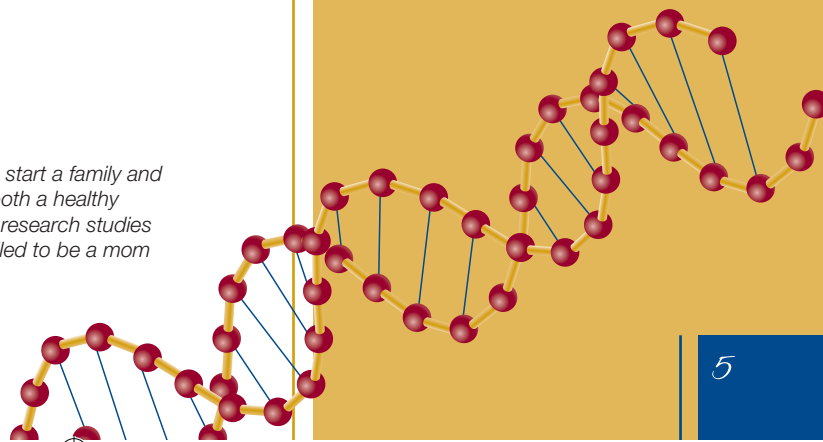
In this breakthrough year, UW-CTRI researchers published a significant finding about the genetic basis of tobacco dependence and factors that contribute to the addictive hold of tobacco. Dr. Timothy Baker was the lead author on one of these genetics papers, which appeared in the Public Library of Science Journal: Genetics, co-authored with colleagues at the University of Utah. It was based partially on genetics analyses of UW-CTRI Wisconsin study participants.

The outcome of that study provided encouraging news – if a young person does not begin daily smoking before age 17, it is likely s/he will avoid severe addiction later in life. Young smokers may be genetically predisposed to nicotine's harms but this risk can, in essence, be overcome if their environment is adjusted to prevent smoking during the teen years. Such research findings provide viable options for those in the public-health community who conduct youth-prevention interventions.

OPPOSITE PAGE: Kasey Pogorelski of Eau Claire wanted to start a family and knew she should stop smoking to increase the chances of both a healthy pregnancy and baby. Kasey quit through one of UW-CTRI's research studies that also looked at the genetics of smoking. Now, she is thrilled to be a mom to three-month-old daughter Hazel.

UW-CTRI researchers broke other ground this year with studies that:

- Determined that a combination of nicotine-replacement patch and gum provide the most effective medication treatment in keeping people tobacco free.
- Constructed a new scale to more accurately predict relapse to tobacco use after a quit attempt.
- Fielded a comprehensive study to assess how telephone quit lines can best counsel young people to quit.
- Assessed the efficacy of a nicotine vaccine.
- With the National Institute on Drug Abuse, tested an already-FDA-approved drug for treating Parkinson's disease that may also help smokers successfully quit.
- Discovered common smoker profiles that could open the door to future, tailored tobacco cessation treatments.





Treating Smokers

A record number of smokers became their own force for change in 2008 with help from UW-CTRI and the services it provides.



One of the most stirring public-health success stories in Wisconsin occurred in 2008. Fittingly, it blunted the leading cause of preventable disease and death in the state – tobacco use.

In 2008, an astounding number of smokers, clinicians and family members requested services from the Wisconsin Tobacco Quit Line. The Quit Line provides free, personalized telephonic coaching for state residents looking to break free of a tobacco dependency. During the year, there were more than 40,000 calls to the Quit Line, about four times the annual rate during prior years. As a result, more than 3 percent of smokers in Wisconsin called the Quit Line – among the highest reach-rate ever reported.

This success generated national interest in the outreach work of the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI). We were proud to share the experience with others around the country.

The successful increase in quitline calls was fueled by a number of factors—the free personalized coaching, an offer of a free two-week stop-smoking nicotine medication starter kit, discussions of a statewide smokefree air law and a \$1-state cigarette excise tax increase. Federal guidelines on treating tobacco dependence stress that combining coaching with medication is the most promising way to achieve total tobacco abstinence and the Wisconsin Tobacco Quit Line now provides such combined treatment.

OPPOSITE PAGE: Louis Coffee of Milwaukee smoked for five years before calling the Wisconsin Tobacco Quit Line for free coaching. Sunflower seeds and chewing gum now help him get through the rough spots as he continues to have success over cigarettes.



UW-CTRI helps smokers quit.

- In 2008 the Wisconsin Tobacco Quit Line, managed by UW-CTRI since its inception in 2001, broke the 100,000-total-call mark.
- For 18 years, the UW-CTRI Smoking Cessation Clinic has helped hundreds with its intensive counseling interventions, medication when appropriate and follow-up group relapse prevention program.
- The UW-CTRI Smoking Cessation Clinic creates an individual quit plan and complements a smoker's primary medical care. For more information or to schedule an appointment, call (608) 263-0573.
- The Wisconsin Tobacco Quit Line can be reached by calling 1-800-QUIT-NOW from 7 a.m. to 11 p.m. any day of the week. Quit coaches fluent in Spanish are also available.



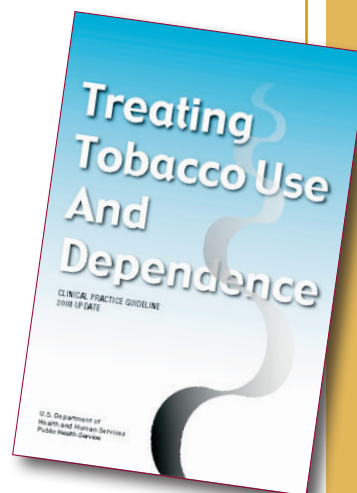
Systems Change

Walking side-by-side with clinicians, healthcare systems and policymakers, UW-CTRI is a force for change in treating tobacco use and dependence.

In 2008, the U.S. Public Health Service released a seminal document. The Clinical Practice Guideline Update: *Treating Tobacco Use and Dependence* provided recommendations to clinicians, healthcare systems and policymakers on evidence-based tobacco-dependence treatments.

The Guideline synthesized more than 8,700 peer-reviewed articles, and was the product of more than two year's work by an expert panel. As with previous Guideline writing and editing teams, the most-recent national panel was led by Dr. Michael Fiore and a core of researchers from the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI). In 1996 and 2000, UW-CTRI provided the spark necessary to complete and then disseminate this critically important document. Historically, this Guideline has been as popular as it is invaluable. More than 5 million copies of the 2000 edition Guideline and related materials have been distributed in multiple languages around the globe.

The latest update was released during a May 2008 gathering at the American Medical Association headquarters in Chicago that featured former U.S. Surgeon General C. Everett Koop, among others. At the event, speaker New York City Health Commissioner Thomas Friedan said, "What you have here is the best of the best" in regard to a clinical practice guideline.



OPPOSITE PAGE: Outreach Specialist Mary Balistreri (left) visits Milwaukee's Gerald L. Ignace Indian Health Center, providing information about the 2008 U.S. Public Health Service treating tobacco Guideline Update to Jessica Zuercher (center) and Cory Foster (right) and ensuring that tobacco-dependence treatment is a standard of care.

UW-CTRI led the national team that wrote the 2008 update to the U.S. Public Health Service Guideline on treating tobacco.

- The American Medical Association, American Nurses Association and National Hispanic Medical Association, and 55 other groups, endorsed the Guideline Update. Endorsers are disseminating Guideline Update findings to a collective 993,000 clinician members.
- The Guideline Update includes a strong recommendation to combine coaching and medication because they are shown to be significantly more effective in treating tobacco dependence than either used alone.
- The Guideline Update includes a strong recommendation to promote telephonic counseling to aid in the quitting process.
- In 2008, UW-CTRI's outreach team reached more than 12,000 clinicians and others with training and technical assistance based on the Guideline Update.



Publications

University of Wisconsin Center for Tobacco Research and Intervention 2007 and 2008 Publications

Keller PA, Bailey LA, Koss KJ, Baker TB, Fiore MC. Organizations, Financing, Promotion, and Cost of U.S. Quitlines, 2004. *American Journal of Preventive Medicine* (2007) 32-37

Burns ME, Rosenberg MA, Fiore MC. Use and Employer Costs of a Pharmacotherapy Smoking-Cessation Treatment Benefit. *American Journal of Preventive Medicine* (2007) 32,(2) 139-142

Gonzales D, Rennard SI, Jorenby DE, Reeves KR. Oral Varenicline for Smoking Cessation. *Annals of Pharmacotherapy*, 41:720-21 (April 2007) 719-720

Atienza A, Hesse B, Baker TB, Abrams D, Rimer B, Croyle R, Volckmann L. Critical Issues in eHealth Research. *American Journal of Preventive Medicine* (2007) 32(5S) S71-S74

Japuntich S, Smith SS, Jorenby DE, Piper ME, Fiore MC, Baker TB. Depression History Predicts Earlier Relapse Among Smokers Making a Quit Attempt. *Nicotine and Tobacco Research* (June 2007) Vol. 9, (6), 677-686

Davis JM, Fleming MF, Bonus KA, Baker TB. A Pilot Study on Mindfulness Based Stress Reduction for Smokers. *BMC Complement Alternative Medicine* (2007)7:2

Wassenaar TR, Eickhoff JC, Jarzemyk DR, Smith SS, Larson ML, Schiller JH. Differences in Primary Care Clinicians' Approach to Non-small Cell Lung Cancer Patients Compared With Breast Cancer. *Journal Thoracic Oncology* (August 2007) 2(8):722-728

Piper ME, Federman EB, McCarthy DE, Bolt DM, Smith SS, Fiore MC, Baker TB. Efficacy of Bupropion Alone and in Combination With Nicotine Gum. *Nicotine and Tobacco Research* (September 2007) Vol. 9, (9) 947-954

McCarthy DE, Bolt D, Baker TB. The Importance of How: A Call for Mechanistic Research in Tobacco Dependence Treatment Studies. *Psychological Clinical Science: Papers in Honor of Richard McFall* (2007) 133-163

Treat T, Bootzin R, Baker TB. Psychological Clinical Science: Recent Advances in Theory and Practice: Integrative Perspectives in Honor of Richard M. McFall. *Psychological Clinical Science: Papers in Honor of Richard McFall* (2007) 432 p.

Sims M, Sims TH, Bruce MA. Community Income, Smoking and Birth Weight Disparities in Wisconsin. *Journal of National Black Nurses' Association* (2007) 18(2): 16-23

Keller PA, Koss KJ, Baker TB, Bailey LA, Fiore MC. Do State Characteristics Matter? State Level Factors Related to Tobacco Cessation Quitlines. *Tobacco Control* (December 2007) 16 Suppl 1:i75-80

Baker TB, Piper ME, McCarthy DE, Bolt DM, Smith SS, Kim S, Colby SJ, Conti D, Giovino G, Hatsukami D, Hyland A, Krishnan-Sarin S, Niaura R, Perkins K. Time to First Cigarette in the Morning as an Index of Ability to Quit Smoking: Implications for Nicotine Dependence. *Nicotine and Tobacco Research* (2007) Volume 9, Supplement 4 555-570

Fiore MC, Keller PA, Curry SJ. Health System Changes to Facilitate the Delivery of Tobacco-Dependence Treatment. *American Journal of Preventive Medicine* (2007) 33 (6S)

Piper ME, Federman EB, McCarthy DE, Bolt DM, Smith SS, Fiore MC, Baker TB. Using Mediational Models to Explore the Nature of Tobacco Motivation and Tobacco Treatment Effects. *Journal of Abnormal Psychiatry* (2008) Vol. 117 No. 1, 94-105

McCarthy DE, Piasecki TM, Lawrence DL, Jorenby D, Shiffman S, Baker, TB. A Randomized Controlled Clinical Trial of Bupropion SR and Individual Smoking Cessation Counseling. *Nicotine and Tobacco Research* (2008) Vol. 10 No. 4, 717-729

Curry SJ, Keller PA, Orleans TC, Fiore MC. The Role of Healthcare Systems in Increased Tobacco Cessation. *Annual Review of Public Health* (2008) 29: 411-28



Fiore MC, Jaén CR. A Clinical Blueprint to Accelerate the Elimination of Tobacco Use. *Journal of the American Medical Association* (2008) 299 (17): 2083-2085

Niederdeppe J, Fiore MC, Baker TB, Smith SS. Smoking-cessation Media Campaigns and Their Effectiveness Among Socioeconomically Advantaged and Disadvantaged Populations. *American Journal of Public Health* (May 2008) 98(5):916-924

Piasecki TM, McCarthy DE, Fiore MC, Baker TB. Alcohol Consumption, Smoking Urge, and the Reinforcing Effects of Cigarettes: An Ecological Study. *Psychology of Addictive Behaviors* (June 2008) 22(2):230-239

Fiore MC, Baker TB, Bailey WC, et al. A Clinical Practice Guideline for Treating Tobacco Use and Dependence: 2008 Update. *American Journal of Preventive Medicine* (2008) 04.009 1-19

Niaura R, Taylor Hays J, Jorenby DE, Leone FT, Pappas JE, Reeves KR, Williams KE, Billing CB. The Efficacy and Safety of Varenicline for Smoking Cessation Using a Flexible Dosing Strategy in Adult Smokers: A Randomized Controlled Trial. *Current Medical Research and Opinion* (2008) Vol. 24 No. 7 1931-1941

Fiore MC, Jaén CR, Baker TB. Treating Tobacco Use and Dependence: 2008 Update Clinical Practice Guideline. *U.S. Department of Health and Human Services. Public Health Service* (2008)

McCarthy DE, Piasecki TM, Lawrence DL, Jorenby DE, Shiffman S, Baker TB. Psychological Mediators of Bupropion SR Treatment for Smoking Cessation. *Addiction* (2008) 103, 1521-1533

Piper ME, Bolt DM, Kim S-Y, Japuntich SJ, Smith SS, Niederdeppe J, Cannon DS, Baker TB. Refining the Tobacco Dependence Phenotype Using the Wisconsin Inventory of Smoking Dependence Motives (WISDM). *Journal of Abnormal Psychology* (2008) 117, 747-761

Weiss RB, Baker TB, Cannon DS, Von Niederhausern A, Dunn DM, Matsunami N, et al. A Candidate Gene Approach Identifies the CHR1A A5-A3-B4 Region as a Risk Factor for Age-Dependent Nicotine Addiction. *Public Library of Science: Genetics* (2008) 4(7): e10000125. doi: 10.1371/journal.pgen.10000125

Piper ME, McCarthy DE, Bolt DM, Smith SS, Lerman C, Benowitz N, Fiore MC, Baker TB. Assessing Dimensions of the Nicotine Dependence Phenotype: An Evaluation of the Nicotine Dependence Syndrome Scale (NDSS) and the Wisconsin Inventory of Smoking Dependence Motives (WISDM). *Nicotine and Tobacco Research* (2008) 10, 1009-1020

Pack QR, Jorenby DE, Fiore MC, Jackson T, Weston P, Piper ME, Baker TB. A Comparison of the Nicotine Lozenge and Nicotine Gum: An Effectiveness Randomized Controlled Trial. *Wisconsin Medical Journal* (2008) 107; 5, 237-243



Financials

2008 Financial Information

The University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) operating budget for 2008 was approximately \$10 million. A variety of sources recognize the value of UW-CTRI research and other activities and dedicate funds to its operation. These include the federal government, the State of Wisconsin, nonprofit entities, pharmaceutical company research and the University of Wisconsin-Madison.

Roughly half of UW-CTRI funding flowed into Wisconsin from outside of the state. UW-CTRI maintains a diversified funding portfolio. UW-CTRI does not accept funding from the tobacco industry. Such acceptance would be counter to the Center's mission.

Federal Government

Nearly five years ago, the National Institutes of Health awarded UW-CTRI a Transdisciplinary Tobacco Use Research Center grant. 2008 was the fourth year of that five-year award. The research work is yielding significant findings for the field of tobacco-dependence investigation since it treats each smoker as a "whole person," taking into account diet, nutrition, exercise and numerous other factors.

The federal Agency for Healthcare Research and Quality funded UW-CTRI to lead the extensive updating work on the U.S. Public Health Service Clinical Practice Guideline Update: *Treating Tobacco Use and Dependence*. Additional partners on the project included the Centers for Disease Control, National Institute on Drug Abuse, National Cancer Institute and the National Heart, Lung and Blood Institute.

Disseminating the findings of the U.S. Public Health Service Clinical Practice Guideline Update: *Treating Tobacco Use and Dependence*, is critical to putting recommendations into practice. The National Cancer Institute provided funding to aid in that dissemination. The Centers for Disease Control supports UW-CTRI research on varied protocols to encourage the use of telephonic quit-smoking coaching services.

UW-CTRI, the National Institutes of Health and the U.S. Department of Veterans Affairs were co-investigators on a medication known as selegiline as a possible stop-smoking treatment.

State of Wisconsin

The State of Wisconsin contracts with UW-CTRI to administer and manage both a statewide Education and Outreach Program, and the Wisconsin Tobacco Quit Line. The education program trains clinicians on how best to implement evidence-based treatments for tobacco users, and the Quit Line provides direct services to clinicians, smokers and smokers' families.

Nonprofit Entities

The Robert Wood Johnson Foundation and the American Legacy Foundation appropriated funds to both research and write the U.S. Public Health Service Clinical Practice Guideline: *Treating Tobacco Use and Dependence*, as well as disseminate it. ClearWay MinnesotaSM funded UW-CTRI to deliver technical assistance to Minnesota grantees.

Pharmaceutical Company Research

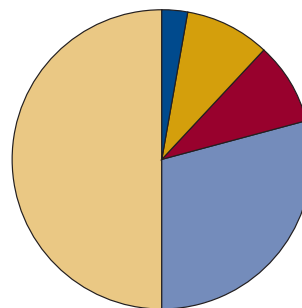
UW-CTRI conducted clinical trials on medications to treat tobacco dependence.

University of Wisconsin-Madison

The University of Wisconsin-Madison retains its longtime commitment to UW-CTRI and its mission. The UW School of Medicine and Public Health, UW Department of Medicine and the UW Paul P. Carbone Comprehensive Cancer Center provided funding as well.



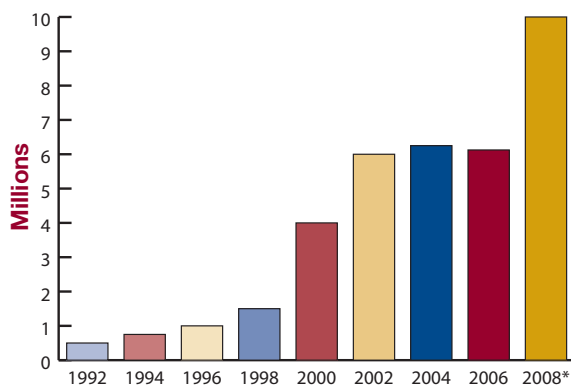
2008 Funding Sources



- **State of Wisconsin-Madison 50%
- Federal Government 29%
- University of Wisconsin-Madison 9%
- Nonprofit Entities 9%
- Pharmaceutical Company Research 3%

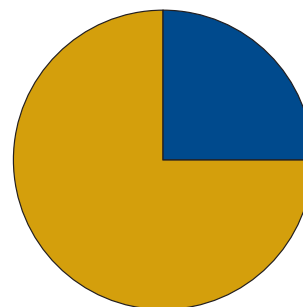
***Includes funding for the Wisconsin Tobacco Quit Line.*

UW-CTRI Operating Budgets 1992-2008



**Much of the increased budget in 2008 resulted from increased state funding of the Wisconsin Tobacco Quit Line.*

More than 75% of UW-CTRI funding, \$52 million since 1992, has come from outside the state.



- Outside funding brought into Wisconsin
- State of Wisconsin Funding

Leadership

University of Wisconsin Center for Tobacco Research and Intervention

Structure and Leadership

The University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) is a nationally recognized research and outreach center committed to determining the nature of tobacco dependence and disseminating evidence-based treatments to assist tobacco users.

UW-CTRI was founded in 1992 on the campus of the University of Wisconsin-Madison and is housed within the University of Wisconsin School of Medicine and Public Health.

Michael C. Fiore, M.D., M.P.H., Professor of Medicine Founder and Director

Timothy B. Baker, Ph.D., Professor of Medicine Associate Director and Director of Research

David Fraser, M.S. Assistant Director for Research Administration

Lezli A. Redmond, M.P.H..... Assistant Director for Intervention Programs

Lisa Rogers, B.B.A. Assistant Director for Finance

UW-CTRI has offices in Milwaukee and Madison for research, outreach and administrative activities. Six of UW-CTRI's outreach staff members are dedicated to serving the needs of Wisconsin's five health regions. Outreach staff members are based in offices located in Milwaukee, Madison, Oshkosh, Eau Claire and Rhinelander.

Connect

University of Wisconsin Center for Tobacco Research and Intervention Online

Connect with the University of Wisconsin Center for Tobacco Research and Intervention (UW-CTRI) online. The site, www.ctri.wisc.edu, draws more than 1.5 million annual visitors interested in learning more about:

- research updates
- publications
- facts sheets
- video of sample patient interactions
- educational materials and more

UW-CTRI's main office is located at 1930 Monroe St., Madison, WI 53711. The office phone number is (608) 262-8673 and the e-mail address is info@ctri.medicine.wisc.edu.

To support the research and outreach efforts of UW-CTRI, make a tax-deductible donation through the University of Wisconsin Foundation secure Web site. Reach that site through www.ctri.wisc.edu/donate.html or call (608) 262-8673 for further details.