



UNIVERSITY OF MINNESOTA

*Cancer Center*

*A Comprehensive Cancer Center  
designated by the National Cancer Institute*

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**FOR IMMEDIATE RELEASE**

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**U of M study provides first scientific evidence that the Freedom to Breathe Act is creating healthier workplaces for hospitality employees**  
*Study found an 85 percent decrease in carcinogen levels in study participants*

MINNEAPOLIS, Minn., March 27, 2008 – A new study released today by the University of Minnesota Cancer Center and ClearWay Minnesota<sup>SM</sup> found that since the Freedom to Breathe Act went into effect on October 1, 2007, hospitality workers have significantly reduced exposure to a tobacco-specific cancer causing chemical.

The study measured workers exposure to cotinine (a measure of nicotine exposure) and NNAL, a by-product of a potent lung cancer-causing toxin, before and after the law took effect. The study included nonsmoking employees of bars, restaurants and bowling alleys from throughout the state. Each participant submitted urine samples taken before and after the law was enacted, as well as a detailed questionnaire, to the University of Minnesota research team for analysis. Major findings include an 83 percent decrease in cotinine levels and an 85 percent decrease in NNAL levels inside study participant's bodies.

Dr. Dorothy Hatsukami, a nationally respected tobacco researcher, served as the lead investigator for the study. "The comprehensive smoking ban has had a significant impact in reducing bodily exposure to a powerful lung cancer cancer-causing agent and nicotine in our hospitality workers.

“Protecting our workers (and patrons) from known cancer causing agents, which has been demonstrated to be present in the urine of these workers prior to the smoking ban, should continue to be a high priority,” said Dr. Hatsukami, Forster Family Professor in Cancer Prevention, University of Minnesota Cancer Center.

The findings substantiate previous University of Minnesota Cancer Center studies that have shown that nonsmoking restaurant workers and casino patrons have significantly higher levels of cancer-causing toxins in their bodies after working in or visiting establishments that allow smoking. Other research has estimated that restaurant and bar employees who do not smoke have about a 50 percent higher risk of contracting lung cancer than the general population. This risk has been related in part to exposure to secondhand smoke in their workplace.

“We have known for a long time that secondhand smoke is dangerous to nonsmokers. This study underscores the health risks faced by Minnesota hospitality workers prior to the passage of the smoke-free law,” said Dr. Barbara Schillo, Director of Research for ClearWay Minnesota. “These data provide conclusive evidence that the Freedom to Breathe Act is working to create healthier workplaces for all Minnesotans.”

### **Methodology**

This study involved 24 nonsmoking bar, restaurant and bowling alley employees who typically were not exposed to secondhand smoke except in their workplaces. Subjects were asked to collect urine samples and complete exposure questionnaires prior to the smoke-free law after working a shift equal to or greater than six hours. The second urine sample and questionnaires were collected four to six weeks after the smoke-free law went into effect and after working a shift equal to or greater than six hours. These urine samples were assessed for total NNAL and total cotinine. To view the report, visit [www.tturc.umn.edu](http://www.tturc.umn.edu) or [www.clearwaymn.org](http://www.clearwaymn.org).

**University of Minnesota Cancer Center**

*The Cancer Center at the University of Minnesota is a National Cancer Institute-designated Comprehensive Cancer Center. Awarded more than \$80 million in peer-reviewed grants during fiscal year 2007, the Cancer Center conducts cancer research that advances knowledge and enhances care. The center also engages in community outreach and public education efforts addressing cancer. To learn more about cancer, visit the University of Minnesota Cancer Center Web site at [www.cancer.umn.edu](http://www.cancer.umn.edu). For cancer questions, call the Cancer Center information line at 1-888-CANCER MN (1-888-226-2376) or 612-624-2620 in the metro area.*

**ClearWay Minnesota<sup>SM</sup>**

*ClearWay Minnesota<sup>SM</sup> is an independent, non-profit organization that improves the health of Minnesotans by reducing the harm caused by tobacco. ClearWay Minnesota serves Minnesota through its grant-making program, through QUITPLAN® Services and through statewide outreach activities. It is funded with 3 percent of the state's 1998 tobacco settlement.*

*For more information on QUITPLAN Services, call 952-767-1400 or visit [www.clearwaymn.org](http://www.clearwaymn.org).*