Women are half as likely as men to develop substance use disorders. But research shows that women become addicted more quickly, and once addicted, they suffer more negative consequences than men. “When women enter substance abuse treatment, they tend to be more impaired than men,” says CABHR Scientist Susan Rose, Ph.D.

Consider that women progress more quickly from first use of a drug to addiction, a phenomenon known as the “telescoping effect.” Biology plays a role. In the case of alcohol, women possess less alcohol dehydrogenase, an enzyme in the stomach essential for alcohol metabolism, and their bodies contain more fat and less total body water than men. A woman’s stomach lining absorbs more alcohol directly, and once absorbed, the alcohol is more concentrated in the bloodstream.

Biology aside, addicted women “often have more to juggle than men with similar problems,” says CABHR Scientist Laura Otto-Salaj, Ph.D. They’re more likely to live with their children and to have to navigate the child welfare system. Addicted women are more likely than their male counterparts to have sexual and physical abuse histories. (In one research review, 55 to 99 percent of women in treatment reported physical or sexual trauma in their past.) Women also are about twice as likely as men to suffer from mood disorders such as depression along with their addiction, which affects treatment outcomes.

And addicted women face tremendous stigma. Sheigla Murphy, Ph.D., director of the Center for Substance Abuse Studies at the Institute for Scientific Analysis in San Francisco, adds that pregnant women with addictions are one of the most stigmatized groups in society, which keeps severely ill women out of treatment.

But these gender differences are not widely known. “Certainly the general public as well as many in the medical community are not always aware that girls and women can be more vulnerable to substances and their effects,” explains Shelly Greenfield, M.D., director of Clinical and Health Services Research and Education, Division on Alcohol and Drug Abuse at McLean Hospital in Belmont, Massachusetts, and associate professor of psychiatry at Harvard Medical School.

CABHR’s Findings on Women
Several CABHR scientists have been committed to understanding the experience of substance-abusing women. Here are just some of the past, current, and future CABHR projects that have contributed knowledge to this field.

• Women and Drug Treatment. Led by Dr. Rose, this project examined why some addicted women receiving Temporary Assistance for Needy Families stayed in drug treatment longer than others. System-wide problems—such as waiting lists and lack of transportation—were common barriers to drug treatment. But if women “could form an emotional bond with the agency, and with other women,” Dr. Rose says, “that tended to be a very strong motivator.”

• NIAAA Curriculum. CABHR Scientist Audrey Begun, Ph.D., led the project to develop the National Institute on Alcohol Abuse and Alcoholism curriculum on alcohol use disorders for master’s level social work students. The curriculum includes a module that summarizes research on women and alcohol, and is available free of charge at www.niaaa.nih.gov.

• Heart to Heart. Dr. Otto-Salaj and Dr. Rose led this recent, federally funded study, which provided treatment to women with alcohol use disorders and sexual risk. More than 70 percent of the women screened to participate in the study met criteria for other drug use disorders, and 63 percent met criteria for post-traumatic stress disorder, suggesting that “when treating substance use disorders in this subset of women, practitioners have to be prepared to deal with multiple issues,” including polysubstance abuse and sexual trauma, Dr. Otto-Salaj says.
In this column last fall, I offered on-the-ground observations about young adult drinking on the East Side of Milwaukee. Since then, urban studies doctoral candidate Ozgur Avaci has assisted me in analyzing 2007 data collected in the UW system’s biannual survey of college student drinking. The data suggest that more than half of UW–Milwaukee undergraduates (55 percent) report binge drinking—consuming five or more drinks in a single sitting—in the past two weeks. The fact that this rate matches the range in most college populations (it is, in fact, lower than the rate on some campuses) is of little consolation considering the recent tragic alcohol-related deaths of students at UW–Milwaukee and in the nearby community of Whitefish Bay.

Adolescent and young adult drinking is complicated by the fact that recreational use of prescription medication is increasingly common. As we unfortunately have learned from recent events, this can be a lethal combination. The Drug Abuse Warning Network (DAWN) database, an ongoing national survey of hospital emergency room admissions involving drug and alcohol misuse, underscores this point. The most recent data, from 2006, indicate that there were 1.7 million U.S. emergency room visits related to substance abuse, and more than seven hundred thousand of those visits involved non-medical use of prescription medication, over-the-counter pharmaceuticals, or dietary supplements. About a quarter of these visits involved patients younger than 25. The latest DAWN report also shows that these events have increased steadily over the previous three years for which data is available, suggesting a growing problem of prescription drug misuse. The DAWN data highlight a tragically unmet nationwide need for education and prevention.

This makes our workshop on May 18, “Reducing Risk in Young Adult Drinking: Campus and Community Prevention Strategies,” especially timely. The main presenters at this event, Bob Saltz, Bill DeJong, and Mary Larimer, have built national reputations and a store of knowledge about potentially successful strategies for preventing problem alcohol use in college-age populations. Still, it is important to draw on local expertise in developing solutions. For example, one factor in the recent deaths may be a lack of knowledge about toxic drug combinations. Wisconsin Distinguished Professor Janis Eells, who has considerable training and experience in pharmacology, recently proposed introducing undergraduate courses to educate students on these issues.

While such courses would fill an important gap, our strategies also need to account for the complex, peer-driven nature of risk behavior associated with substance abuse. Another reality is that potentially harmful prescription medications have never been more widely accessible than they are now, in part because they’re so effective. Consider that Suboxone, the prescription substance involved in recent overdoses, has well-established efficacy in the treatment of opiate dependence and has provided physicians with a valuable tool for addressing this growing problem in our community. But we need to include drug treatment physicians in this conversation so distribution practices can reflect the fact that these medications have considerable potential to fall into the wrong hands.

As our recent experience with prescription medications suggests, solving old problems sometimes creates new ones. Fortunately, new problems can be avoided with careful and comprehensive planning. We need to understand the scope of this problem, to select prevention programs based on prior research, to involve all key stakeholders, and to systematically evaluate any programs we enact to ensure their sustainability.

CABHR’s ongoing epidemiological analyses will continue to provide planners with the latest data about the scope of the alcohol and drug problems in our community. Our workshop in May, as well as future follow-up events, will provide valuable opportunities for a range of stakeholders to engage in the prevention-planning process. And, as our track record makes clear, CABHR will continue to lead efforts to evaluate the impact of local substance abuse intervention and prevention programs.

WHAT IS CABHR?
Based in the University of Wisconsin–Milwaukee’s Helen Bader School of Social Welfare, CABHR is a research center led by core academic scientists with broad interests in the addictions and behavioral health. CABHR conducts cutting-edge epidemiological, intervention, and clinical research. Its scientists currently hold $1.5 million in research grants.
**NEWS BRIEFS**

**New Research Site Opens**

CABHR’s new Community Research Center (CRC) opened on April 1. Located at 1849 North Dr. Martin Luther King Drive in Milwaukee, the CRC provides CABHR scientists with a community site to conduct epidemiological, intervention, and clinical research studies. CABHR will host an open house of the CRC this fall; watch for details at www.cabhr.uwm.edu.

**Summer Seminar Examines Multi-level Modeling**

CABHR will host Don Hedeker, Ph.D., of the University of Illinois at Chicago School of Public Health for a workshop titled “Applied Multi-Level Modeling for Social Research.” This two-day workshop, held 9 a.m. to 3 p.m. on July 20 and 21, will look at procedures for analyzing social science data at the individual and group levels simultaneously. For more information, visit www.cabhr.uwm.edu or contact Mary Heller at 414-229-4895.

**CABHR Hosts Experts in College Drinking Research**

CABHR will host a daylong workshop, “Reducing Risk in Young Adult Drinking: Campus and Community Prevention Strategies” on May 18 at UW–Milwaukee. The workshop is designed to gather campus and community leaders to consider the latest evidence-based methods to prevent or reduce high-risk drinking among 17- to 24-year-olds, and to plan ways to both implement these strategies and evaluate their effectiveness. The schedule includes presentations by national research experts including William De Jong, Ph.D., of the Boston University School of Public Health, Mary Larimer, Ph.D., of the University of Washington in Seattle, and Bob Saltz, Ph.D., of the PIRE–Prevention Research Center in Berkeley, California.

The ultimate goal of this event is to create a coalition of Milwaukee-area colleges, businesses, and service providers to develop programs to deal with high-risk young adult drinking. For more information, visit www.highriskdrinking.uwm.edu or contact Mary Heller at 414-229-4895.

**CABHR Scientists Publish Findings**


For more on these articles, visit www4.uwm.edu/cabhr/research_news.cfm.

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**CABHR BIDS FOND FAREWELL TO AUDREY BEGUN**

In her 22 years on the social work faculty of the Helen Bader School of Social Welfare (HBSSW), Audrey Begun, Ph.D., has been essential to the life of CABHR. This spring, she leaves UW–Milwaukee to take a tenured faculty position in the College of Social Work at Ohio State University in Columbus.

Dr. Begun was a “primary architect” of CABHR, working with founding director Allen Zweben, D.S.W., to launch the center in 1991. “Audrey spent countless hours setting up the necessary infrastructure: hiring appropriate staff, encouraging scientists on campus to join, and creating processes that allowed CABHR to flourish,” says HBSSW Dean Stan Stojkovic, Ph.D.

When Dr. Zweben left CABHR in 2004, Dr. Begun became acting director. “Audrey’s administrative acumen was critical to CABHR’s survival in a time of leadership transition,” says CABHR Director Michael Fendrich, Ph.D. “She has a unique ability to troubleshoot and anticipate problems. Her leadership skills and excellent hiring decisions were instrumental in creating a stellar team of scientists and academic staff that have been critical to CABHR’s growth.”

Dr. Begun’s own scholarship at UW–Milwaukee included her leadership as editor of the National Institutes on Alcohol Abuse and Alcoholism (NIAAA) curriculum on alcohol use disorders for master’s level social work students. This curriculum was the first effort to integrate current findings about alcohol into social work programs across the country. Dr. Begun brought an intimate knowledge of social work education and an analytic mind to the project, explains Peggy Murray, senior advisor to the Office of the Director at NIAAA. “But it was her skill at motivating the diverse authors, reviewers, and other contributors from many universities and research centers that really brought the project to completion,” Ms. Murray says.

Dr. Begun also conducted important research on intimate partner violence prevention, funded by grants from the Centers for Disease Control and Prevention and the Pettit Foundation. This resulted in the Safe at Home Instrument, which assesses batterers’ readiness to change violence directed toward intimate partners. Most recently, she was co-principal investigator with CABHR Scientist Susan Rose, Ph.D., on the Women in Jails project, funded by the Bureau of Justice Administration. She also served as co-principal investigator with CABHR scientists Lisa Berger, Ph.D., and Mike Brondino, Ph.D., on the initial development of a lifecourse alcohol change-attempt assessment strategy, funded by the Silberman Foundation.

A respected mentor, Dr. Begun provided valuable advice and encouragement to colleagues. “I went to Audrey many times when I was stuck on a teaching or research-related question,” Dr. Berger says. “Audrey also helped me see that I could accomplish things that seemed out of reach.”

Dr. Begun says she plans to pursue multi-site research initiatives between Wisconsin and Ohio, in part to “maintain fond working relationships with CABHR scientists.”
**MEET CABHR SCIENTISTS**

**Susan Rose, Ph.D.**
CABHR Scientist, Associate Professor of Social Work, UW–Milwaukee

Dr. Rose's research focuses on substance-abusing mothers and child neglect. Before earning her doctorate in social work from the University of Illinois at Chicago, she spent nearly 20 years as a family therapist at a community agency in Oak Park, Illinois.

She is co-director of the child welfare-training program for master's level social work students in the Helen Bader School of Social Welfare, and is currently working to integrate more education about substance abuse into that curriculum.

As co-principal investigator of the recent Women in Jails project, Dr. Rose learned that more than 80 percent of the women studied had children, and many of those children lived with their mothers at the time of arrest. “This started to concern me: What happened to those kids?” Dr. Rose says. She’s seeking funding for a new phase of the project, which would test interventions to help incarcerated moms and their kids maintain a bond. She also hopes to launch a study of substance-abusing fathers, and the ways they maintain relationships with their children.

Dr. Rose has been elected a record five times to the position of alderman in her home community of Elmhurst, Illinois, where she ran a closely contested campaign for mayor this spring. She sees this as a logical choice for a social work researcher, as she explained in a 1999 article in the *Journal of Community Practice*:

> As federal and state government[s] are abandoning more of their functions in the wake of devolution, the responsibility for traditional human service needs is falling on municipal government, making it increasingly important for social workers to run for municipal office.

On sabbatical for the 2008-2009 academic year, Dr. Rose is using part of the time to develop study abroad programs for social work students, including a course that examines substance abuse, child welfare, and criminal justice in Austria.

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**WOMEN AND ADDICTION continued from page 1**

- **Resilience Project.** Dr. Otto-Salaj is principal investigator of a new five-year, $2.9 million study of risk behavior among African American women. The project will examine which patterns lead some women to risky behaviors, such as drug use, while others remain resilient and avoid those risks. Ultimately, Dr. Otto-Salaj hopes the findings will lead to more effective interventions.

- **Women in Jails.** Co-principal investigators Dr. Begun and Dr. Rose provided motivational interviewing to substance-abusing women in Milwaukee jails, preparing them to enter treatment after release. Interestingly, a lack of information was a significant treatment barrier. Participants received a resource book containing information about local services. “The women who stay in treatment say they’ve used the resource book, and we think there’s something to that,” Dr. Rose says.

- **Women in Jails and their Families.** Of the women screened in the Women in Jails project, about 80 percent have children, and 68 percent said the children lived with them until they were incarcerated. Dr. Rose is currently seeking funding to test interventions that would train jail personnel and child welfare workers to help maintain bonds between incarcerated women and their children. “Many of these women say that’s a big motivation: trying to control their substance abuse to make a better life for their children,” Dr. Rose says.

- **Mental Health Needs of Incarcerated Women with Drug Problems.** Dr. Rose is currently conducting a needs assessment with the Benedict Center—a Milwaukee agency for women involved in the criminal justice system—to identify the mental health problems their clients face and develop appropriate programs.

- **College Student Drinking Study.** CABHR affiliated scientist Carol Haerlein Sells, Ph.D., is principal investigator of this study, looking at two interventions to reach freshmen who violate alcohol policy in residence halls. Haerlein Sells and her colleagues are currently analyzing their findings, but preliminary data shows that female students drank to roughly the same blood alcohol concentration as male students—around .10 BAC—per drinking occasion.

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**Treating Addicted Women**

In a 2006 article he coauthored in the *Journal of Drug Issues*, CABHR Director Michael Fendrich, Ph.D., notes that women with substance abuse problems “benefit greatly from specially designed treatment programs that are sensitive to their needs.” But he and others report that such programs are rare, in part because providers don’t understand the separate needs of women, or they lack resources to fund such programs.

“The perception is that there are all these resources out there for women, and that is not the case,” Dr. Rose says.

Dr. Greenfield is currently leading a federally funded research study to design and test a manual-driven, women-only relapse-prevention program. In a small initial trial, which compared the once-a-week Women’s Recovery Group to a similar mixed-gender group, “the women in both groups improved during the 12 weeks of treatment,” Dr. Greenfield says. “But the women who were in the Women’s Recovery Group seemed to continue to improve and do better over the six-month follow-up period after treatment ended.” Dr. Greenfield believes that part of the success stems from the fact that more vulnerable women, especially those with “high psychiatric-symptom severity” did better in the women-only group than those in the mixed-gender group.

In Dr. Greenfield’s study, the Women’s Recovery Group was led by a female therapist and the group itself was composed of women and covered women-specific topics, such as the telescoping course of substance abuse, the roles of intimate partners and caretaking in relapse and recovery, and co-occurring depression and anxiety. She and her colleagues are now recruiting participants for a two-site trial of the Women’s Recovery Group. One goal, she says, is to ensure that the program works for diverse populations, like those found in community treatment programs.

Whatever their expertise, substance abuse researchers who study women report feeling optimistic about the directions the field is headed. “I think we have been building up more of a body of knowledge. We’re learning to ask better questions,” Dr. Rose says. “It’s a great time to do research in this area.”

To learn more about current research on women and addiction, visit www.cabhr.uwm.edu.