Winter 2011

#### From the Director

#### Dear Friends and Colleagues:

As we ring out the old and ring in the new, I'd like to wish everyone a safe, healthy, and joyous holiday

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season and a Happy New Year!

As can be seen from the contents of this newsletter, 2010 was a very good year for the WVU Injury Control Research Center. The year was highlighted

by the addition of several new faculty members. We also had many new graduate students become involved in Center activities, and saw our former students graduate and assume exciting positions in the workforce. Our faculty affiliates were extremely productive, successfully procuring new grant funding, disseminating the results of their work, and

actively participating in a variety of national and interntional injury control leadership activities.

Although somewhat less visible to those outside the Center. I would also like to acknowledge the stellar support provided by our administrative staff. Senior Program Administrator Dave Fulaytar and Administrative



Jeff Coben

Assistants Bonnie Grimm and Rebecca Shingleton work tirelessly to support all that we do and are truly the glue that binds us together. I wish to thank each of you for your continued hard work, dedication, and professionalism.

I look forward to continuing our important work together in 2011!

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## **ICRC Welcomes New Faculty**

Kelly Gurka brings expertise in injury-related epidemiology to her new position as an assistant professor in the Department of Community Medicine and the ICRC.

She came to WVU last July from the University of Virginia (UVA) School of Medicine in Charlottes-ville, where she had held various positions in the Division of Biostatistics and Epidemiology since 2004. Most recently, she was assistant professor.

"I wanted to grow my own independent research program within injury because injury is what I really care about," Gurka said of her decision to join the ICRC. "When I saw the posting for the WVU position, it seemed like a golden opportunity to have the ability to potentially work in a center surrounded by other faculty who do injury-related work."

Gurka's current projects include a carry-over study from UVA looking at a video intervention's effects on breast-feeding initiation and duration among new mothers, and two collaborative projects with the National Institute for Occupational Safety and Health on workplace homicide, which was her dissertation concentration. She is also a co-investigator on a study examining the effect of an emergency-department-based intervention on drug abuse (Screening, Motivational Assessment, Referral, and Treatment in Emergency Departments--see related story on page 5).

In addition, Gurka is working on course development. She is currently developing a course in injury control research methods that will be taught this

spring to master's and doctoral level students. This course will be required for the new concentration in injury for the M.P.H. degree that the public health program is adding to its offerings.

In 2007, Gurka earned her Ph.D. in epidemiology from the University of North Carolina at Chapel Hill. In 1999, she completed her master's in public health in the same discipline at the University of Alabama at Birmingham, and a year earlier received her bachelor's of science in biology at Spring Hill College in Mobile, Alabama.

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Gurka came to WVU with her husband, Dr. Matthew Gurka, who is an associate professor in community medicine and an ICRC-affiliated faculty member. Although she is still in her first year at the ICRC, Gurka seems to have found her professional niche.

"What I want to do is positively affect people's lives, and it's been great having colleagues who know and care about research that's important to me," she said. "I have found it a very collegial place to work, and Dr. Coben has been an extraordinarily supportive director."



## Safety Effects of Graduated Driver Licensing Examined

Graduated driver licensing (GDL) laws reduce the incidence of crashes among young drivers, but it is unclear whether they affect the rate of crashes among older drivers, as well as other injuries. A new ICRC study funded by the CDC's National Center for Injury Prevention and Control seeks to clarify GDL's overall safety effects.

Under GDL laws, which are in place nationwide, teenage drivers must pass two stages before being permitted to drive without restrictions. The first stage is the learner's permit, or level 1 license, which permits 15- to 16-year-olds to drive only under adult supervision; this stage usually lasts for six to 12 months. Next, 16- to 17-year-old drivers can apply for a level 2 license, which permits them to drive alone during certain hours only (with possible exceptions for employment and school), and limits the number of passengers permitted. After a level 2 driver has been driving for at least one year without any traffic violations, a level 3, unrestricted permit is issued.

The two-year study, which started last September, has three main objectives, explained Motao Zhu, M.D.M.S., Ph.D., principal investigator and Assistant Professor in the Department of Community Medicine and the ICRC. First, the study will examine if GDL results in a reduced crash rate per miles driven among 15- to 17-year-old drivers. Second, the investigators



Motao Zhu

will analyze the rate of non-driver injuries in this age group. The third goal is to examine possible GDL-related traffic injuries among 18-year-olds.

"Because teenagers cannot drive, their parents will give them a ride, or they can use public transportation, walk, or bicycle," Zhu said. "This may increase non-driving injuries. Also, because GDL regulations are for people under age 18, some people may just wait until age 18 to get a license and then they have no restrictions at all, so the traffic crash rate for 18 year-olds may be increased. We don't know these answers yet."

#### **Graduated Driver Licensing Laws**

Level 1 — 15 - 16 years old — Instruction permit to learn to drive under adult supervision

Level 2 — 16 - 17 years old — Intermediate license to drive alone only during specific hours

Level 3 — 17 - <18 years old — Full license after one year at Level 2 with no traffic violations

## Statistician Songzhu Zhao Joins ICRC

Songzhu (Sonia) Zhao has joined the ICRC as a statistician after completing her master's in statistics at WVU in May 2010.

It is not her first collaboration with the ICRC. Before joining the staff in mid-November in her current role, Zhao worked in the Center, from August 2009 to January 2010, as a research assistant on a project examining national trends in druginvolved, fatal automobile crashes.

Songzhu Zhao

She is currently working on a project estimating the annual number of hospitalizations and emergency department visits among West Virginia residents due to traumatic brain injuries, as well as determining associated medical and financial outcomes.

Another of Zhao's projects, conducted with Dr. Motao Zhu, is examining the safety effects of graduated driver's licensing laws (see related story on page 3). For this two-year study, Zhao is calculating traffic crash rates per person-year and per mile among young drivers.

Zhao came to WVU from her native China where she completed a bachelor's of science in chemistry in 2005 at Sichuan University, in Chengdu, Sichuan Province.

Asked how she chose

"For the weather; it's

similar to my home-

town. In China, I got some offers from

other universities in

then I checked the

weather and decided

this is the place I like.

The weather is good,

and it's so close to

the United States, and

Morgantown, she

laughed and said:

Zhao Washington D.C. and New York. It's a quiet and interesting place to live "

Zhao also said that she likes the friendly, supportive atmosphere at the ICRC, and is happy to have a job doing the work that she loves: statistical analysis.

Her long-term goal, she added, is to stay in Morgantown and eventually obtain a master's in public health; at WVU, of course.



## **New Study Looks at Novel Substance Abuse Intervention**

A new study is examining whether an intervention delivered during and after emergency-room visits can decrease substance abuse

The Screening, Motivational Assessment, Referral, and Treatment in Emergency Departments, or SMART-ED study, is a nationwide, multi-site clinical trial designed to compare the effects of three different levels of interventions on subsequent drug abuse. The interventions will be provided to patients during and, in some cases after, emergency room visits.

"What is unique about this study is we are not limiting this to alcohol," said Steve Davis, M.P.A., M.S.W., project manager, Director of Clinical Research for the WVU Department of Emergency

Medicine, Adjunct Associate Professor in the School of Medicine, and ICRC faculty affiliate. "We are interested in all types of drugs, both licit and illicit, which I think is particularly relevant to West Virginia given the real problem we have with prescription-drug abuse, as well as other drugs."

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the problem of drug abuse. Group two will receive the pamphlet as well as a list of area resources. In addition to these materials, the third group will receive a 30-minute motivational interview, as well as two follow-up telephone calls within one week.

All three groups will be scheduled for follow-up sessions at three, six, and 12 months post-emergency visit. To ensure validity, all participants will give a hair sample to be analyzed for drugs.

"If you have somebody who says, 'I haven't used in the past 30 days,' and the hair sample tells a different story, then obviously we can get a more objective measure," Davis explained.

The study started in September 2010 and will run through November 2012, with a targeted number of 1,200 participants. In addition to WVU, participating centers include the University of New Mexico, Massachusetts General Hospital, Bellevue Hospital Center, and Jackson Memorial Hospital.

Patients who score high on a questionnaire about drug use and abuse will be randomized into one of three groups after giving informed consent to participate in the study. Group one will receive a pamphlet from that National Institute on Drug Abuse that describes "This intervention has been shown to work with alcohol abuse, and that's why we want to expand it to all types of drugs because, as you can appreciate, we see it all in the emergency department," Davis said. "People come in for anything and everything."

# **Scientific Presentations 2010**

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- I.R.H. Rockett, G.R. Hobbs, de Leo, D., S. Stack, N.D. *Kapusta.* Complications in counting suicide in the United States: the case of poisoning. Fifth International Conference on Interdisciplinary Social Sciences. University of Cambridge, Cambridge, United Kingdom, August 2, 2010.
- Rauscher K. Exploring social contexts at work and how they affect the safety of young construction workers. Safety 2010 World Conference, London, England; September 2010.
- Zhu M., Zhao, S., Rice, T.M., Coben, J.H.. Trend analysis of drug-related motor vehicle crashes in the United States. Safety 2010 World Conference, London, England; September 2010.
- Rockett, I.R.H., Hobbs, G.R., de Leo, D, Stack, S., Frost, J.L., Ducatman, A.M., Kapusta, N.D. Walker, R.L. Suicide and unintentional poison ing mortality trends in the United States, 1987-2006. Independent? 13th European Symposium on Suicide and Suicidal Behaviour, Angelicum, Rome, Italy, September 3, 2010.
- Muazzam S, Davis S, Nasrullah M, Coben J. "Epidemiology of assault-related hospitalizations in the United States, 2006." Annual Scientific Assembly of the American College of Emergency Physicians, Las Vegas, NV, September 2010.
- **Davidov D.** Mandatory reporting of intimate partner violence and children's exposure to intimate partner violence: nurse home visitors' perspectives. 138th Annual Meeting of the American Public Health Association Annual Meeting, Denver, Colorado, November 6-10, 2010.

- **Rauscher K.** Adolescent worker fatalities involving child labor and OSHA violations in North Carolina (1991-2008). Annual Meeting of the American Public Health Association Annual Meeting, Denver, Colorado, November 6-10, 2010.
- Muazzam, S., Nasrullah, M. "Drowning mortality in the United States, 1999-2006." Annual Meeting of the American Public Health Association, Denver, Colorado, November 6-10, 2010.
- Tiesman, H., Gurka, K.K., Coben, J. Fatal workplace violence among U.S. women: the census of fatal occupational injuries, 2003-2008. 138th Annual Meeting of the American Public Health Association. Denver, Colorado, November 6-10, 2010.
- **Zhu, M., Li, G., Coben, J.** Driving exposure and crash incidence density as determinants of fatal crash rates among teenage drivers. 138th Annual Meeting of the American Public Health Association. Denver, Colorado, November 6-10, 2010.
- Rockett, I.R.H., Hobbs, G., De Leo, D., Stack, S., **Ducatman**, A., Frost, J. Relationship of suicide and unintentional poisoning mortality trends in the United States, 1987-2006. 138th Annual Meeting of the American Public Health Association. Denver, Colorado, November 6-10, 2010.
- Rockett, I.R.H., Wang, S., Stack, S., De Leo, D., Frost, J.L., Ducatman, A.M., Walker, R. L., Kapusta, N.D. Race/Ethnicity and Potential Suicide Misclassification: Window on a Minority Suicide Paradox? 138th Annual Meeting of the American Public Health Association. Denver, Colorado, November 6-10, 2010.

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- *Choudhary, E., Coben, J., Bossarte, R.M.* Adverse health outcomes, perpetrator characteristics, and sexual violence victimization among U.S. adult males. J Interpers Violence. 2010; 25:1523-1541.
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- *Cain L, Helmkamp J.* Geographic and temporal comparisons of ATV deaths in West Virginia, 2000-2008. W VA Med J 2010;106:26-29.
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- *Nasrullah, M., Muazzam, S*. Spectrum of injuries in a tertiary care hospital of Karachi, Pakistan. Ital J Public Health 2010; 7(2):17–23.
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- Lemp, J.D., Kockelman, K.M., Unnikrishnan, A. Analysis of large truck crash severity using heteroskedastic ordered probit models. Accident Analysis and Prevention (2010),doi:10.1016/j.aap.2010.09.006
- Rockett, I.R.H., Hobbs, G., De Leo, D., Stack, S., Frost, J.L., Ducatman, A.M., Kapusta, N.D., Walker, R.L. Suicide and unintentional poisoning mortality trends in the United States, 1987-2006: two unrelated phenomena? BMC Public Health 2010;10:705.
- *Rockett, I.R.H.* Counting suicides and making suicide count as a public health problem. Crisis. 2010 Jan 1;31(5):227-30.

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- *Jack, S., Ford-Gilboe, M., MacMillan, H.* for the NFP IPV Research Team Development of an intervention to address intimate partner violence within the Nurse-Family Partnership home visitation program. CIHR Institute for Gender & Health; Innovations in Gender, Sex & Health Research Conference. Toronto, ON. November, 2010.
- Coben, J., Herrman, H., MacMillan, H.L., Stewart, D., Wathen, N. The PreVAiL Research Network. CIHR Institute for Gender & Health; Innovations in Gender, Sex & Health Research Conference. Toronto, ON. November, 2010.

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- Farooq, U., Nasrullah, M., Bhatti, J.A., et al. Inc idence of burns and factors associated with their hospitalization in Rawalpindi, Pakistan.

  Burns. 2010; doi:10.1016/j.burns.2010.10.009
- *Muazzam, S., Nasrullah, M.* Macro determinants of cause-specific injury mortality in the OECD countries: an exploration of the importance of GDP and unemployment. J Community Health. Published online 30 November 2010. DOI 10.1007/s10900-010-9343-5
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- *Davidov*, *D.M.*, *Jack*, *S.M.*, *Frost*, *S.S.*, & *Coben*, *J.H.* Mandatory reporting in the context of home visitation programs: intimate partner violence and children's exposure to intimate partner violence. Violence Against Women (in press).
- *Carter, M.W., Porell, F.W.* The effect of sentinel injury on medicare expenditures over time. J of the Amer Geria Soc (in press).