

## OCCUPATIONAL INJURY: A PUBLIC HEALTH CONCERN

Thomas Largo and Martha Stanbury

What is the impact of work-related injury in Michigan? National estimates suggest that among people aged 20 to 65, one-third of all injuries and one-sixth of all injury deaths occur on the job.<sup>1</sup> According to the federal Bureau of Labor Statistics (BLS), each year more than 250,000 Michigan residents are injured on the job and about 170 are killed at work. Almost \$1.5 billion was paid for Workers' Compensation claims in Michigan in 1999, the most recent year for which data

are available. The BLS non-fatal injury data are known to undercount the injury magnitude and workers' compensation claims data account for only a fraction of health care costs and earnings lost. Clearly, occupational injury has major adverse social impacts, yet it often remains on the periphery of public health, in part because occupational health is often seen as a labor or regulatory issue.

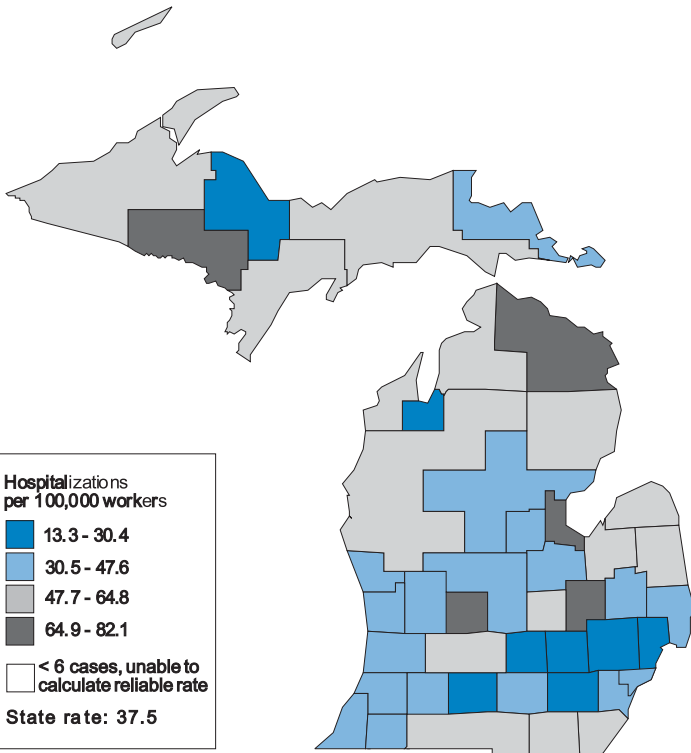
In 2000, the Michigan Department of Community Health (MDCH) received funding from the National Institute for Occupational Safety and Health, Centers for Disease Control and Prevention, to enhance the integration of occupational health surveillance into Michigan public health systems. As part of this project, MDCH will publish annual occupational health surveillance reports, including data on occupational injuries. Several data sources are being utilized to develop the injury component of this report, including: death certificates, the Michigan Inpatient Database (MIDB), the Census of Fatal Occupational Injuries, the BLS Annual Survey of Occupational Injuries

and Illnesses, Workers' Compensation claims, and the Michigan Emergency Department Community Injury Information Network (MEDCIIN). In advance of the first annual report, which is expected at the end of 2002, this article highlights some of the data on hospitalized occupational injuries.

Work-related injuries that require hospitalization are only a small portion of all occupational injuries. However, they represent serious incidents and may be sentinel events, indicating the existence of a larger group of workers at risk of the same injury. The MIDB, which contains data on Michigan residents hospitalized

*Continued on page 2*

### Michigan Occupational Injury Hospitalization Rates, by Local Health Department Region, 1999, Ages 16+



Source: Michigan Inpatient Database

### TABLE OF CONTENTS

MDCH Launches New Website .....	2
Case Reports of Creutzfeldt-Jakob Disease in Two Unusually Young Patients in Michigan .....	3
Michigan Disease Surveillance System (MDSS) .....	4
Hepatitis C Reporting Guidelines .....	4
The Michigan Center for Genomics & Public Health: Bridging the Gap Between Gene Discovery and Public Health .....	5
Michigan Immunization Update .....	5
FYI: Kava .....	5
Folic Acid Awareness Among Michigan Mothers, 1996-1999 .....	6
Dr. Bolin Receives Teacher of the Year Award .....	7
Fish Advisory Posters Available .....	7
West Nile Virus Surveillance and Response Plan Michigan - 2002 .....	8
Update on the "Clinic Aspects of Critical Biological Agents" Training Course .....	8
Employee Focus .....	9
Conferences and Training Opportunities .....	9
Michigan Epidemiology Conference 2002 Was a Big Success .....	10
New Publications .....	10
Recent Presentations .....	10
New Employees .....	11

## MDCH Launches New Website

The Michigan Department of Community Health (MDCH) has unveiled its new department website – [www.michigan.gov/mdch](http://www.michigan.gov/mdch) – that offers faster and easier access to health-related news and services.

The new MDCH website represents the latest enhancement to the Michigan.gov web portal and is part of a broader statewide effort to ensure easy and efficient navigation throughout state government websites. The added features to [www.Michigan.gov/mdch](http://www.Michigan.gov/mdch) include a common look-and-feel, a search engine, Quick Links, and links to Michigan's privacy and security policies.

Information on the MDCH website is now organized into eight main categories:

- **Birth, Death, Marriage and Divorce Records** allows for the opportunity to order these records online.
- **Physical Health and Prevention** contains disease prevention information such as a self-test to help increase individual health awareness, and information for seniors and persons who have been victims of crime.
- **Pregnant Women, Children, and Families** offers information on the Women, Infants and Children (WIC) nutrition program, prenatal smoking cessation, and immunization.
- **Mental Health and Substance Abuse** offers program information for persons with a mental illness, developmental disability, or substance abuse issue. Recipient Rights information is also available.
- **Health Care Coverage** offers information on what health care programs are available for pregnant women, children and teens, adults, persons with disabilities, and seniors.
- **Statistics and Reports** contains updated statistics on cancer,

pregnancy, mortality, and other health-related information collected to assess the health and well-being of Michigan's citizens.

- **Providers** offers reporting form information for physicians on a variety of health issues and additional educational information for health care providers.
- **Inside Community Health** offers general information on the department and its staff.

Information for most Bureau of Epidemiology programs can be found under the "Providers" category. Information for programs such as immunizations and lead poisoning can also be found under the "Children and Families" section of the "Pregnant Women, Children, and Families" category. A search engine for locating a particular document or topic of interest is available in the top right-hand corner of the page.

### *"Occupational Injury: A Public Health Concern" continued from page 1*

in Michigan and contiguous states, does not specifically identify whether an individual sustained his or her injury at work. The best available method to identify work-related injury cases is to select patients for whom the expected payment source is workers' compensation. This methodology may undercount work-related injury hospitalizations either because people injured at work are not covered by workers' compensation (e.g., self-employed), they did not know that their hospitalization was eligible for coverage, or they did not utilize it because of the potential difficulties of settling claims. One study found that workers' compensation identified about half of work-related injury hospitalizations.<sup>2</sup>

In 1999, there were 1,856 hospitalizations to Michigan residents aged 16 and older for which injury was the principal diagnosis and workers' compensation was the expected payer.<sup>3</sup> These cases comprised 3.8 percent of the 49,417 injury hospitalizations that year. In comparison, preliminary data from

MEDCIIN indicates that for 1999, workers' compensation was the expected payer for 9.6 percent of injury patients aged 16 and older treated for injury in emergency departments.

The numbers and rates of hospitalization by local health department region are illustrated in the figure (note: Detroit and out-county data were combined). Rates ranged from 13.3 per 100,000 workers in Washtenaw County to 82.1 per 100,000 workers in Genesee County. Other regions of the state had rates that substantially exceeded the state rate (37.5). Subsequent geographical analyses of hospitalization data may provide confirmation that some of these areas have excessive occupational injury hospitalization rates.

The distribution of the types of work-related injuries requiring hospitalization is different from that of all occupational injuries. The BLS Annual Survey, which is a collection of data from a statistical sample of employers who are required to maintain logs of work-related injuries, includes information on

injury type. In 1999, fractures were much more common among occupational injury inpatients than among the BLS survey population (53.9% vs. 6.6%). Conversely, sprains/strains (10.3% vs. 43.8%) and contusions (1.4% vs. 9.2%) were much less prevalent among injury inpatients.

The Occupational Health Surveillance Annual Report will be the first product that has been developed containing comprehensive data on work-related injury and illness in Michigan. For additional information on the annual report or occupational injuries, contact Tom Largo at LargoT@Michigan.gov.

#### References:

1. Baker S, et al. *The Injury Fact Book*. 2<sup>nd</sup> edition. New York: Oxford University Press, 1992, p. 114.
2. Hensler D, et al. *Compensation for Accidental Injuries in the United States*. R-3999-HHS-ICJ. Santa Monica: Rand Institute for Civil Justice, 1991.
3. Largo T, et al. *Michigan Injury Hospitalizations, 1999*. Lansing, MI: Michigan Department of Community Health, April 2002.

# Case Reports of Creutzfeldt-Jakob Disease in Two Unusually Young Patients in Michigan.

Chidinma Arole

**A**lthough rare, Creutzfeldt-Jakob Disease (CJD) is the most common transmissible spongiform encephalopathy (TSE) in humans. Clinical manifestations are progressive and confined to the central nervous system (CNS). The disease is invariably fatal. The associated agent is an isoform of a normal host protein called prion protein. [1] Sporadic CJD is the most common form of the disease, occurring in 80 percent of all cases. [2] Familial CJD is inherited in an autosomal dominant pattern. Acquired CJD is transmitted through contact with infected tissue and products, and contaminated instruments. To date, there has not been evidence of hematogenous transmission. [1,3,4] TSEs also occur in animals and include chronic wasting disease (CWD), bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy, feline spongiform encephalopathy, exotic ungulate encephalopathy, and scrapie.

Worldwide incidence of CJD is approximately one case per million population per year. [3] Mortality data from 1979 – 94 indicated a death rate of 4.13 and 0.12 per million per year for persons aged 55 years or older and persons aged less than 55, respectively. The death rate for the Midwest was 1.03 per million. [5] CJD usually occurs in persons aged 55-75 years. Diagnosis and death before the age of 30 was extremely rare until the discovery of new variant CJD (nvCJD). Evidence shows that nvCJD is causally linked to BSE in cattle, presumably transmitted through consumption of contaminated beef products. [1,3,6] This focused attention on the possibility that other TSEs in animals could cross species and cause CJD in humans. Concern developed that CWD in deer and elk could be transmitted in a similar way, based on the occurrence of CJD in young patients having a common exposure of venison consumption. However, subsequent investigation has found no strong evidence of a causal link between venison consumption and the development of CJD (CDC, unpublished data).

## Case Reports

Two cases of CJD in unusually young men from adjacent counties in Michigan were reported in August 2001. The case-patients were 26 and 28 years of age. Clinical records were reviewed and close family members were interviewed. A standard questionnaire was used to obtain disease presentation, progression, and clinical findings. CJD risk factors, travel, hunting, and food consumption histories were also obtained. Venison consumption and deer hunting histories were examined as possible exposures.

**Case #1.** This patient presented with a three-week history of rapid neurological deterioration. The symptoms consisted of memory loss and social withdrawal. The patient was aware of these mental status changes and complained of severe headaches and loss of vision. Dysfunction in gait or other motor function was not noted. On admission to the hospital, seizure activity was noted on EEG, which progressed to status epilepticus. A brain biopsy specimen was sent to the National Prion Disease Pathology Surveillance Center (NPDPS) in Cleveland, Ohio. Immunohistochemical analysis established the diagnosis of Creutzfeldt-Jakob disease, *distinct from nvCJD*. The time from presentation to death was approximately three months.

**Case #2:** This patient presented with symptoms of increasing outbursts of anger. Psychotherapy for anger management and drug therapy for depression was initiated. Despite treatment, the symptoms persisted. In addition, there were increasing signs of confusion, hyperphasia, and memory loss. Gait disturbances and aphasia were noted, and the patient complained of headaches and photophobia. Pathology review of a brain biopsy specimen sent to NPDPS confirmed the diagnosis of CJD. The time from presentation to death was approximately ten months.

Family histories were positive for psychiatric diseases but negative for CJD in both patients. Neither patient had

traveled to CWD-endemic areas or to the United Kingdom. There was no documentation of major surgery and their diets included an average consumption of beef products. There was no clear evidence of venison consumption or deer hunting.

## Conclusion

The two patients described in this report are very unusual in their age at diagnosis. In addition, the occurrence of such a rare event in persons from adjacent counties during the same time period raises the question of similar exposures. There is currently no evidence of a causal exposure or any similarities between the two patients. Epidemiologic data for these two patients do not point to medical, family, or other known risk factors for CJD. As one patient was reported to be a blood donor, sites of donation will be tracked and recipients identified in an effort to enroll the recipients in an ongoing cohort study of patients who received blood components obtained from a 'CJD donor.' The information obtained from this investigation does not contribute to the possible link between CWD and CJD.

1. Belay ED. Transmissible spongiform encephalopathies in humans. *Annual Review of Microbiology* 1999;53:283-314.
2. National Prion Disease Pathology Surveillance Center. Available at: . Accessed September 17, 2001.
3. Johnson RT, Gibbs CJ. Medical progress: Creutzfeldt-Jakob Disease and related transmissible spongiform encephalopathies. *New England Journal of Medicine* 1998;339(27):1994-2004.
4. Ricketts MN, *et al.* Is Creutzfeldt-Jakob disease transmitted in blood? *Emerging Infectious Diseases* 1997;3(2):155-163
5. Gibbons RV, *et al.* Creutzfeldt-Jakob Disease in the United States, 1979-1994: using national mortality data to assess the possible occurrence of variant cases. *JAMA* 2000;284(18):333-334.
6. Brown P. Bovine spongiform encephalopathy and variant Creutzfeldt-Jakob disease. *British Medical Journal* 2001;332(7290):841-844.

# Michigan Disease Surveillance System (MDSS)

*Jim Collins and Brad Carlson*

In order to be effective, surveillance systems must be representative, easily operable, flexible, and timely. Michigan's existing electronic system (LHDSURV) communicates only with local health jurisdictions, is installed in separate locations with no accessible central data repository, and does not facilitate timely data transmission or analysis. To address these deficiencies, the MDCH Bureau of Epidemiology has begun a transition to a comprehensive electronic disease surveillance system.

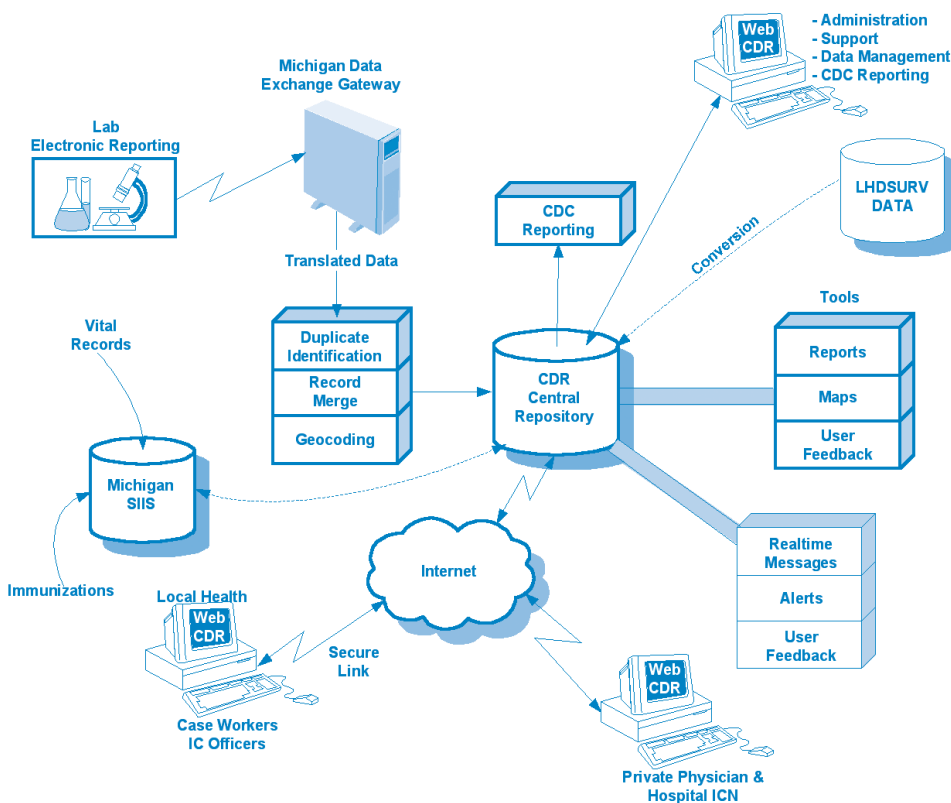
This new system will be developed through a three-phase approach with Phase I including a proof of concept for the implementation of a web-based surveillance interface between MDCH and Michigan's local public health jurisdictions. Implementation will result in a functional, web-based proof of concept prototype for HIPAA-compliant communicable disease

reporting. The pilot of the Phase I application at four local health departments (Kent, Macomb, Marquette, and Washtenaw) will be designed to assure that the MDSS will meet local and state functional and technical performance requirements. Phases II and III will include the incorporation of electronic reporting from laboratories and private providers. The modular design of this system will facilitate future incorporation of additional traditional and novel surveillance systems (e.g., HIV, tuberculosis, emergency department syndromic surveillance, EMS run data, pharmaceutical purchase patterns).

The vision of MDSS is the design and implementation of integrated surveillance systems that can transfer appropriate public health, laboratory, and clinical data efficiently and securely over the Internet. The MDSS will improve public health in Michigan by

gathering and analyzing information quickly and accurately. This will help to improve the ability to identify and track emerging infectious diseases and potential bioterrorism attacks, as well as to investigate outbreaks and monitor disease trends.

Local public health professionals have been very interested in this project and look forward to its implementation. "The internet has revolutionized the way we create and share information, and being able to use that technology as a tool in disease surveillance and reporting will be a tremendous advantage," said Cathy Raevsky, Administrative Health Officer, Kent County Health Department. "We are very excited to be a pilot site for the MDSS, and are really looking forward to the efficiency this system will bring to disease surveillance in the community."



## Hepatitis C Reporting Guidelines

*Kim Kirkey*

New guidelines for reporting hepatitis C were sent to local health department medical directors and communicable disease directors in December 2001. The new guidelines include case definitions for acute and chronic hepatitis C, recommended case investigation practices, the procedure for reporting hepatitis C to MDCH, and recommended education and counseling information to be relayed to hepatitis-C-positive individuals. Also provided in the packet are hepatitis C prevalence estimates for each county, hepatitis C Internet resources, and an order form for CDC brochures and posters. If you have not received a packet, please contact Kim Kirkey at 517-335-3165.

## The Michigan Center for Genomics & Public Health: Bridging the Gap Between Gene Discovery and Public Health

Sarah Raup

The Michigan Center for Genomics and Public Health was recently established at the University of Michigan (U-M) School of Public Health, in partnership with the U-M Medical School and the Michigan Department of Community Health (MDCH). The center is one of three in the nation funded by the Centers for Disease Control and Prevention (CDC), through the Association of Schools of Public Health, to increase the understanding and utilization of genomics in public health practice. The center has three broad goals, which have an underlying emphasis on the ethical, legal, social, and community issues related to the integration of genetics into public health programs.

**Genome** refers to an organism's complete set of DNA.

**Genomics** is the study of genes and their function. The term is also used to refer to the study of all elements of the human genome and how they relate to human health and disease.

First, the center will contribute to the knowledge base on genomics and public health. Although new gene discoveries for diseases of public health importance are reported nearly everyday, most of these discoveries are based on studies of high-risk families or selected groups, not the population as a whole. As a result, a large gap exists between many gene discoveries and the ability to use genetic information for disease prevention and health promotion purposes. Researchers associated with the Michigan Center for Genomics and Public Health will be reviewing, analyzing, and synthesizing human genome epidemiology data, with a specific focus on cardiovascular disease, in order to identify potential ways that genetic information can be used to prevent disease and improve health.

**Human Genome Epidemiology** (HuGE) refers to epidemiologic data describing:

- Prevalence of gene variants,
- Magnitude of disease risk associated with gene variants,
- Contributions of gene variants to the occurrence of the disease.
- Magnitude of disease risk associated with gene-gene and gene-environment interactions, and
- Validity of genetic tests.

Check out the CDC HuGE website:  
[www.cdc.genetics/hugenet](http://www.cdc.genetics/hugenet)

The second goal of the center is to help state and local public health organizations in Michigan and across the Midwest better understand the genetic basis of disease and appropriately integrate genetic advances into public health programs. Janice Bach ([bachj@michigan.gov](mailto:bachj@michigan.gov)) is the genetics coordinator with the Hereditary Disorders Program, which is now located in the MDCH Bureau of Epidemiology, and directs the center's technical assistance component by overseeing efforts to identify the needs of public health programs and to meet those needs. The center is also involved in national initiatives to address actions that can be taken by public health entities to integrate genetics into public health programs, such as the use of family history for targeted prevention efforts.

Third, the center also aims to develop and provide training opportunities in public health genetics for the current and future public health workforce. As a part of this effort, the center will provide scholarships for public health professionals to attend courses entitled "Introduction to Genetics in Epidemiology" and "Genetics in Epidemiology" offered through the Graduate Summer Session in Epidemiology at the U-M in July 2002. For more information about this opportunity or for general information about the Michigan Center for Genomics and Public Health, please contact the director's office at (734) 936-0636.

## FYI: Kava

The Food and Drug Administration (FDA) is investigating whether the use of dietary supplements containing kava (also known as kava kava or *Piper methysticum*) is associated with liver toxicity. The FDA is asking physicians to review cases of liver toxicity in their patients to determine if they may be related to the use of kava-containing dietary supplements. Dietary supplements containing kava are promoted for a variety of uses including relaxation, insomnia, and premenstrual syndrome. More information on the FDA's inquiry can be found at <http://www.cfsan.fda.gov/~dms/ds-ltr27.html>. To report adverse events associated with the use of kava, call the FDA's MedWatch program at 1-800-332-1088 or visit their website at <http://www.fda.gov/medwatch>.

## Michigan Immunization Update

The Division of Communicable Disease and Immunization at MDCH publishes the *Michigan Immunization Update* newsletter several times a year. This free publication is recommended to health care providers and other professionals who are interested and have a need to keep up-to-date on immunization-related activities and topics.

### Want to be added to our mailing list?

Fax us your complete name and home address and we'll add you to our mailing list to receive a hard copy of the newsletter. All address changes, corrections, and additions should be faxed to Darcy Wildt at 517-335-9855.

For questions concerning address changes, corrections, and additions call Darcy Wildt at 517-335-9486 or e-mail [WildtD@michigan.gov](mailto:WildtD@michigan.gov). For any other questions regarding the *Michigan Immunization Update*, call Rosemary Franklin at 517-335-9485 or e-mail [FranklinR@michigan.gov](mailto:FranklinR@michigan.gov).

# Folic Acid Awareness Among Michigan Mothers, 1996-1999

Elizabeth Eby and Bao-Ping Zhu

Neural tube defects (NTDs) are serious and often fatal birth defects of the brain and spine, and are responsible for varying degrees of disability for the surviving infants. They are relatively common congenital anomalies, occurring to 1-2 newborns per 1,000 live births in the United States. Every year, approximately 4,000 pregnancies in the U.S. are affected by NTDs, one third of which

most important risk factor for NTDs, and the most effective way to prevent NTDs is through diet intake of folic acid. The primary source of information regarding Michigan women's knowledge that folic acid consumption can prevent NTDs is the Pregnancy Risk Assessment and Monitoring System (PRAMS). PRAMS respondents were asked, "Have you ever heard or read that taking the vitamin folic acid can help prevent some birth defects?"

increase, however, was not universal in all sociodemographic subgroups. Among mothers who used Medicaid before or after the pregnancy and mothers whose annual family income was under \$10,000, the increase in folic acid awareness was minimal. Moreover, younger mothers and mothers who had lower educational status actually experienced a decline in folic acid awareness (Fig. 1 and Fig. 2).

Figure 1. Folic Acid Awareness Among Women Who Delivered a Live Birth, by Maternal Education,

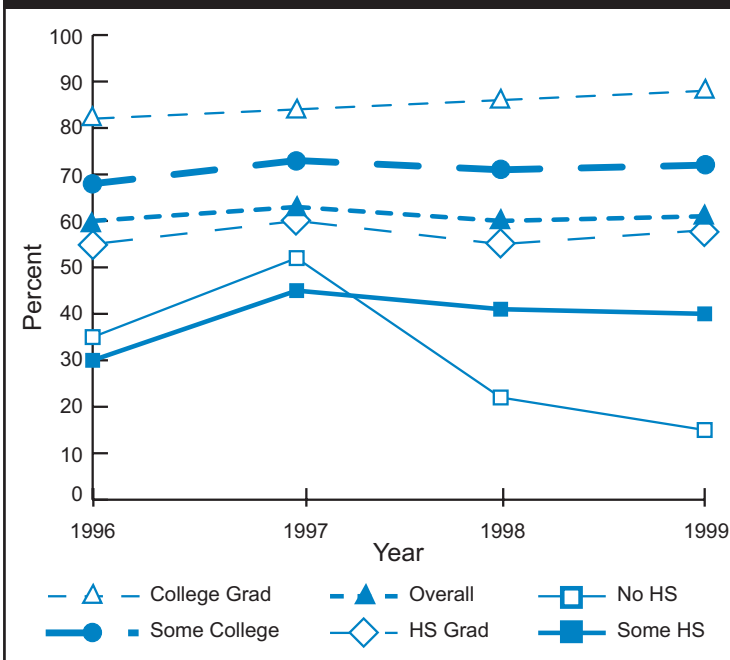
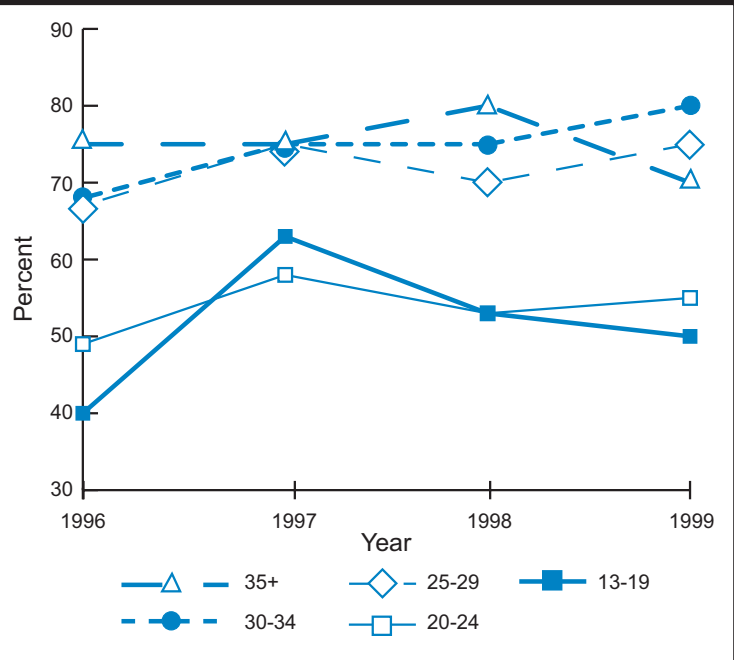


Figure 2. Folic Acid Awareness Among Women Who Delivered a Live Birth, by Maternal Education, Michigan, 1996-99



are spontaneously lost or electively terminated. In Michigan, approximately 500 live births with NTDs occurred between 1992 and 1997.

NTDs are caused by incomplete closure of the neural tube which gives rise to the developing fetus' brain and spinal cord. Neural tube closure occurs between the 17th and 30th day after conception, often before a woman is aware she is pregnant. The majority of NTD cases are spina bifida, along with anencephaly and encephalocele. Folic acid deficiency is the

Of the sociodemographic subgroups, minority, unmarried, teenage mothers, mothers who had less than a high school education, who were on Medicaid before pregnancy, and who had no insurance had lower levels of folic acid awareness. Generally, less than half of these mothers were aware that folic acid prevents NTDs.

From 1996 to 1999, the overall percentage of Michigan mothers who were aware that folic acid prevents birth defects increased from 60.3 percent in 1996 to 71.4 percent in 1999. The

A closer examination of the trends data reveals that, from 1996 to 1997, folic acid awareness increased in all sociodemographic subgroups. The increase can be explained at least partially by the national folic acid awareness campaign in 1995 by the March of Dimes called "Think Ahead." The "Think Ahead" campaign was designed to promote folic acid awareness through multiple channels, including media campaign, advertisements, and education. This campaign was supplemented by state initiatives

Continued on page 7

# *Dr. Boulton Receives Teacher of the Year Award*

*Dr. Matthew Boulton, State Epidemiologist, of the Bureau of Epidemiology, and epidemiology professor, is receiving the University of Michigan School of Public Health's 2002 Teacher of the Year Award. The award is given annually at the School of Public Health's graduation ceremony and is intended to recognize that faculty member for teaching excellence.*

## **Fish Advisory Posters Available**

The Michigan Department of Community Health (MDCH) is working with the Michigan Environmental Council and other environmental groups throughout the state to distribute a generic fish advisory poster. These posters are designed to remind anglers that fishing is a great sport and that eating fish is a healthful food choice provided people check with the Michigan Fish Advisory to be safe.

MDCH will provide posters to anyone who will post and maintain them at locations where fishing takes place. These posters are not specific to any lake, stream, or river but rather refer people to toll free numbers where they can get information about a specific body of water or about preparing and eating fish.

To order posters call or email Daniel Lince at MDCH: (517) 335-8108, [lincd@michigan.gov](mailto:lincd@michigan.gov).

## *"Folic Acid Awareness Among Michigan Mothers, 1996-1999" continued from page 6*

beginning in 1994 promoting awareness and consumption of foods containing or fortified with folic acid. The program in Michigan also included an educational model, primarily through presentations to public health practitioners and in 1996, distributing pamphlets to the public.

However, since 1997, the overall folic acid awareness has not improved; indeed, among mothers who did not have a college education (Fig. 1) and mothers under age 25 years (Fig. 2), folic acid awareness has declined.

It should be noted that PRAMS only captured information on the folic acid awareness, not its actual usage. The information about its usage is currently not available in PRAMS. In 2000, however, PRAMS added a question asking how frequently women took a multivitamin within one month prior to conception. Although the new survey

does not directly ask about the intake of folic acid, most multivitamin pills now contain folic acid. Therefore, once the 2000 PRAMS data are available, we will be able to decipher the prenatal use of folic acid.

Because folic acid awareness has not improved, and in certain subgroups it has declined since 1997, we need another campaign to heighten its awareness. The "Think Ahead" campaign sponsored by the March of Dimes in 1995 appears to have been effective. It may be warranted for these programs to be re-launched. Special attention should be given to minority women and women who had lower socioeconomic status, of whom over half are unaware that folic acid can prevent NTDs. Because these women are generally hard to reach, community-based programs may be essential for reaching out to these women.

# West Nile Virus Surveillance and Response Plan Michigan – 2002

## 2001 Overview

In 2001, West Nile Virus (WNV) Surveillance in Michigan focused on the collection and testing of dead crows, beginning in May and continuing through September. On August 23, 2001, MDCH issued a press release that announced the identification of two infected crows, one each in Macomb and Oakland counties. Over 500 dead birds (crows and blue jays) were ultimately submitted through the intensive efforts of local health partners in 38 jurisdictions throughout the state. The Animal Health Diagnostic Laboratory at Michigan State University (MSU) performed immunohistochemistry (IHC) on 244 of the birds as an initial screening test. The large number of specimens that were not tested was due to specimens being received in poor condition and from counties that had already been embargoed because of a previously documented WNV-positive bird. Polymerase chain reaction (PCR) performed at MDCH confirmed 65 positive birds.

Shortly after the identification of the first positive birds from Macomb and Oakland counties, targeted mosquito surveillance was conducted in areas within a two-mile radius around the locales where these dead birds were found. Two pools of *Culex pipiens* (one each from Macomb and Oakland counties) were found to be positive for WNV.

## 2002 Plans

Surveillance efforts will again focus on crows and will utilize the general public to submit specimens, since it is felt that the layperson can easily identify this species of bird. The telephone hotline is up and running again (1-888-668-0869). As a supplement to the hotline, web-based reporting of dead crows will also be initiated. This portion of the surveillance will be designed as a pilot project in collaboration with the MSU College of Veterinary Medicine.

This year's surveillance will also include active mosquito, equine, and human surveillance. For mosquito surveillance,

the intent is to quantify, by field surveillance, the diversity and abundance of the mosquito community across the urban-suburban-rural transition in the heavily populated southeast Michigan, and to identify, by PCR analysis, those infected species of mosquitoes taken in space and time. The Michigan Department of Agriculture, Animal Industry Division already conducts active surveillance for acute encephalitis in Michigan horses by fortnightly contact of equine and large animal practices in the lower half of the state. Surveillance will be increased in the more densely populated southeast section of the state. Active human surveillance will consist of calling an enrolled group of physicians and infection control practitioners on a biweekly basis from May through September to identify cases of acute encephalitis with unknown etiology. Serum, CSF, and/or tissue specimens will be requested for all potential cases identified.

The MDCH laboratory will provide the following to support surveillance activities:

- Serology
- Virus isolation and detection.

The following tools are currently available:

- Michigan's WNV website can be accessed at [www.michigan.gov](http://www.michigan.gov). Click on "Providers" in the left column, then click on "Communicable and Chronic Diseases", then "Fact Sheets".
- Letters for physicians and hospital laboratories
- Information meetings

The following tools are under development:

- Press release
- Update the MDA handbook *Fight the Bite*
- Training sessions for Michigan LHDs (anticipated prior to the 2003 season).

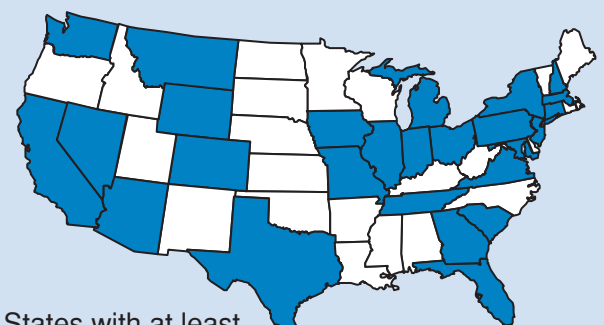
## Update on the "Clinical Aspects of Critical Biological Agents" Training Course

In response to the need for enhanced surveillance for low-incidence events, one year ago this month the Surveillance Systems Section in the Bureau of Epidemiology launched the Clinical Aspects of Critical Biological Agents Training Course, an innovative self-study continuing medical education program. In that first year, there were approximately 1,000 requests for copies of the training course on CD-ROM and numerous visitors to the website. Requests for the material have come from across North America.

As of April 30, the department has received over 300 applications for continuing education credit from a total of 28 states and

4 countries. Applications continue to arrive and can be accepted for credit until May 2003. Those who have not yet taken advantage of this program can do so by visiting our website at: <http://www.michigan.gov/mdch/1,1607,7-132-2945-12972--,00.html>.

## Critical Agents Training Participants



States with at least one participant

- No
- Yes

Other States/Countries  
Alaska Jamaica  
Puerto Rico Peru  
Canada



## Employee Focus: Bao-Ping Zhu

**B**ao-Ping Zhu, M.D., M.S., was born in a remote rural area in Anhui Province in southeast China. At age 16, he began medical school in Hefei (the provincial capital of Anhui) where he received a bachelor's degree in medicine. Zhu went on to attend the prestigious Chinese Academy of Medical Sciences in Beijing where he received a doctoral degree in preventive medicine. His interest in maternal and child health (MCH) started as a medical student during his clinical rounds and his work with UNICEF on a project in rural China establishing an MCH surveillance system. After receiving his doctoral degree, Zhu spent six months as a lecturer at the Peking Union Medical College before moving on to INSERM (which is similar to the NIH in the U.S.) in Paris, France, as a postdoctoral researcher. At INSERM, he was involved in a randomized trial of vitamin supplementation to prevent infection among the elderly and a psychological epidemiology project concerning stress and depression among nuclear power plant employees.

Zhu came to the U.S. to study biostatistics at the University of Massachusetts, Amherst, from 1991-

1993. After completing his master's degree, Zhu was employed by the Batelle Memorial Institute from 1993-1996 to work as an on-site statistician for the Centers for Disease Control and Prevention (CDC). While at CDC he primarily worked on issues related to smoking and health, especially on lung cancer projects, and was involved with the statistical analyses for two Surgeon General's reports on smoking.

In 1996, Zhu joined the CDC's Epidemic Intelligence Service (EIS) and was stationed at the Utah Department of Health. During his two years in Utah he worked on several outbreak investigations, including an inter-state diarrheal disease outbreak and a suicide cluster. While in Utah, he also conducted an analysis of inter-pregnancy intervals, which resulted in a publication as a lead article in the *New England Journal of Medicine* and started one of his major ongoing areas of research interest.

Zhu came to work with the Michigan Department of Community Health in 1998 as a senior MCH epidemiology assignee from the CDC, Division of Reproductive Health, MCH Epidemiology Program. As a CDC

assignee, his main charge has been to build MCH epidemiology capacity at both the state and national levels through collaboration with ongoing MCH programs, as well as teaching at Michigan State University and at national workshops. He has continued his research on the relationship between pregnancy spacing and perinatal outcomes, risk factors for preterm delivery, and maternal morbidity and mortality.

Last year, Zhu was invited by the UNICEF China Office and the Chinese Ministry of Health to evaluate the Chinese National MCH Surveillance System. It was the second time that Zhu served as a UNICEF consultant.

Outside of his professional life, Zhu lives in Okemos with his wife and two sons, one of whom was born in Massachusetts just days after Zhu defended his master's thesis, and the other was born last year in Michigan. Zhu works with his church doing family relations counseling and teaches Sunday school. Being an amateur photographer, he enjoys decorating his house with his work, and loves playing ping-pong with his wife and eight-year old son.

## Conferences and Training Opportunities

- June 27, 2002  
*Immunization Nursing Issues* - CDC satellite course  
12:00 pm – 2:00 pm  
Visit [www.cdc.gov/nip](http://www.cdc.gov/nip) or [www.phppo.cdc.gov/phtn/default.asp](http://www.phppo.cdc.gov/phtn/default.asp) for more details and registration.
- August 15, 2002  
*Immunization Update* - CDC satellite course  
9:00 am – 11:30 am and 12:00 pm – 3:30 pm  
Visit [www.phppo.cdc.gov/phtn/default.asp](http://www.phppo.cdc.gov/phtn/default.asp) for more details and registration.
- December 5, 2002  
*Surveillance of Vaccine-Preventable Diseases* – CDC satellite course  
12:00 pm – 3:30 pm  
Visit [www.phppo.cdc.gov/phtn/default.asp](http://www.phppo.cdc.gov/phtn/default.asp) for more details and registration.

Continuing education credits are offered to participants. For more information, call Rosemary Franklin at 517-335-9485 or Darcy Wildt at 517-335-9486.

## Michigan Epidemiology Conference 2002 Was a Big Success

*Matthew Boulton*

The Michigan Epidemiology Conference was held on March 14-15 at the University of Michigan Towsley Medical Auditorium and was an unparalleled success. Over 250 persons attended the two-day event, which featured Dr. David Fleming, Acting Director of the Centers for Disease Control and Prevention (CDC), as the keynote speaker. Fourteen CDC Epidemic Intelligence Service Officers presented their research on the first day, each talk was followed by commentary and questions from an expert panel comprised of public health practitioners and academicians. Dr. Fleming led off day two with his address entitled "Epidemiology and Anthrax Attacks," in which he gave an overview of the CDC's experience as the lead investigative agency in the anthrax mailings of last fall. Later that day, Dr. George Kaplan, Chair of the University of Michigan School of Public Health Epidemiology Department, and Dr. Nigel Paneth, Epidemiology Department Chair at Michigan State University, spoke about the central place and purpose of epidemiology in public health today.

The meeting also featured poster presentations of the research work of state and local public health professionals, academic faculty, graduate students, and private sector epidemiologists. During the noon hour of day two, multiple organizations sponsored career roundtables for the students, and the Michigan Public Health Association Epidemiology Section and the Michigan Association of Public Health and Preventive Medicine physicians held their respective annual meetings. The day afforded unique opportunities for networking amongst epidemiologists and to highlight the accomplishments of the epidemiology professional community in this state.

Planning is already underway for next year's conference, and we hope to see the same level of enthusiasm and interest that was so evident this year. We encourage everyone who is interested to join the Michigan Public Health Association Epidemiology Section and to help place Michigan in the national vanguard of public health epidemiology.



*Speaking with Dr. Fleming (far right) from left to right are: Dr. Betsy Foxman, Dr. Matthew Boulton, Dr. Azra Hashmi, and Dr. Dean Sienko.*

## New Publications

Montgomery JP, Gillespie BW, Gentry AC, Mokotoff ED, Crane L, James SA. Does access to health care impact survival time after AIDS? *AIDS Patient Care STDS* 2002;16(5):.

Blostein J, Clark PA. Cost-effectiveness of preimmunization hepatitis B screening in high-risk adolescents. *Public Health Reports* 2001;116(2):165-168.

Yeazel MW, Bunner SH, Kofron PM, Weiss PJ. Put Prevention Into Practice (PIIP): Evaluating PIIP in two family practice residency sites. *Fam Med* 2002;34(1):17-22.

Mokotoff ED, Malamud BH, Kent JB, Kowalczyk RJ, Scott LJ, Lindergren ML, Hammett TA. Progress Toward Elimination of Perinatal HIV Infection in Michigan, 1993-2000. *MMWR Morb Mortal Wkly Rep* 2002;51:94-97.

## Recent Presentations

McGee HB, Rafferty AP, Miller CE. Prostate cancer screening among Michigan men aged 40 years and older: results from the 1999 MI BRFSS. Oral presentation at the BRFSS 19<sup>th</sup> Annual Conference in Atlanta, GA, March 11-14, 2002.

Rafferty AP, McGee HB, Miller CE, Reyes M. Complementary and alternative medicine (CAM) use in Michigan. Poster presentation at the BRFSS 19<sup>th</sup> Annual Conference in Atlanta, GA, March 11-14, 2002.

Reeves M, Rafferty A. Prevalence of healthy lifestyles in the U.S. based on data from the BRFSS 2000. Presented at "Cardiovascular Health for All - Meeting the Challenge of Healthy People 2010," Washington, D.C., April 11-13, 2002.

## Vital Records and Health Data Development Section

Glenn Copeland  
Joanne Hansen

Maria Abrigo  
Ellen Anderson-Dunsmore

Jetty Alverson  
Michael Beebe  
Kay Bertrau  
Joan Calder  
Marcia Collins  
Sharon Crawford  
Dennis Dodson  
Carolyn Dulai  
Jennifer Edgar  
Wendy Farrell

Lesa Feher  
Sue Harrington  
Michelle Hulbert  
Kathy Humphrys  
Pat Kish  
Melissa Mushatt  
Ifeoma Okarfor  
Sue Olger  
Linda Pung  
Glenn Radford  
Kim Rohrbacher  
Helen Sanders  
Charlotte Sanford

Jose Saraiva  
Lorrie Simmons  
Linda Simpson  
Elaine Snyder  
Georgia Spivak  
Phyllis Strong  
Barbara Vail  
Sandra Warmington  
Elaine Weber  
Sandy Whitaker  
JiQuiang Xu

Anthony Bonadio  
Eilene Neuhardt

## Genetics/Newborn Screening Unit

William Young  
Janice Bach  
Denise Archambeault  
Rosalyn Beene  
Pamela Clouser  
Susan Miller  
Denise Pleger  
Mary Brodrick  
Marcia Radin  
Jane Simmermon

## New Employees

**Anna J. Satcher, M.P.H.**, is a new HIV epidemiologist in the HIV/AIDS Surveillance Section. She will be working on a study of HIV-infected clients who received care in 2001. Satcher received her B.S. in biology from the University of Georgia and her M.P.H. in epidemiology from the University of Alabama. As a graduate assistant, she worked on a one-million-dollar, NIAID-funded study to create and test the impact of a computerized intervention on the incidence of STDs in a local high-risk population.

**Kashif Iqbal, M.P.H.**, has joined the Communicable Disease and Immunization Division in the HIV/STD and Blood-Borne Infections Section as an HIV/AIDS epidemiologist and will be working on the 'Survey of HIV Disease and Care Plus Interview (SHDC+)' in Lansing. Iqbal received his bachelor's degree in biology and completed an M.P.H. in epidemiology at the University of South Carolina. He has also worked as an epidemiologist with the South Carolina Department of Health.

**Kathryn Macomber, M.P.H.**, recently joined the HIV/STD and Other Bloodborne Infections Section as an STD epidemiologist for the OASIS Surveillance Project. Macomber has a B.S. in microbiology and a M.P.H. from the Hospital and Molecular Epidemiology Program at the University of Michigan. Her laboratory research focused on the predictors of malaria drug resistance using the *pfmdr1* gene. Macomber also worked with Dr. Betsy Foxman, in collaboration with Pfizer, on a risk factors survey for chronic yeast infections looking at Diflucan effectiveness.

**Barbara Day** is an immunization assessment specialist in the Immunization Outreach and Education Section and will be conducting record assessments in private provider offices, primarily in the city of Detroit and in

southeast Michigan. Day has several years of experience in accounting, human resources, and the hospitality industry.

**Esther Perez** is the new National Pharmaceutical Stockpile planning assistant in the Surveillance Systems Section. Perez is retired from the Ingham County Sheriff's Office, with 18 years of police experience and 27 years in the EMS field. Perez has taught part-time for eight years at Lansing Community College. She also was co-investigator and study coordinator in a cardiac trial, has served on an international committee for cardiac care, has training in emergency management, and is a Radiological III Train-the-Trainer for FEMA.

**Lori K. Simon, M.P.A., R.S.**, recently joined the Communicable Disease and Immunization Division staff as the emergency management coordinator in the Surveillance Systems Section. Simon has had over 17 years of experience working in local public health. In addition, Simon currently serves as president of the Michigan Environmental Health Association, which has over 750 members statewide.

**Melissa Reznar, M.P.H.**, is the new maternal and child health epidemiologist, providing epidemiologic expertise for the Pregnancy Risk Assessment Monitoring System (PRAMS) and the WIC Program (Special Nutrition Program for Women, Infants, and Children). Reznar will also serve as the editor of the Michigan PRAMS Delivery newsletter. Reznar has her B.S. in biomedical science from Western Michigan University and an M.P.H. from the University of Michigan in epidemiology, with an emphasis on reproductive and women's health. Reznar also worked as a medical assistant in the obstetrics clinic at the University of Michigan Hospital while attending school.

MICHIGAN DEPARTMENT OF COMMUNITY HEALTH  
COMMUNITY PUBLIC HEALTH ADMINISTRATION  
BUREAU OF EPIDEMIOLOGY  
3423 NORTH MARTIN LUTHER KING, JR. BLVD.  
P.O. BOX 30195  
LANSING, MICHIGAN 48909

PRSR STD  
U.S. Postage  
**PAID**  
Lansing, MI  
Permit No. 1200

Address Correction Requested

EPI INSIGHT is published quarterly by the Michigan Department of Community Health, Bureau of Epidemiology, to provide information to the public health community. If you would like to be added or deleted from the EPI Insight mailing list, please call 517-335-8165.

**Bureau of Epidemiology**

**Administrator**

Matthew Boulton, MD, MPH

**Newsletter Committee**

Sonja Hrabowy (Editor)

Harry McGee

Rosemary Franklin

Ann Rafferty (Editorial Review)

Michele Fox Melendez

Dan Lince

Jeanne Fleming

MDCH is an Equal Opportunity Employer, Services & Programs Provider.

Total printed: 1000; Total cost of printing: \$750.65 or \$0.760 each.