

INFLUENZA SURVEILLANCE

Sally A. Bidol

For the upcoming 2001-2002 season, MDCH will once again coordinate enhanced influenza surveillance during the months of October-May. The Bureau of Epidemiology receives and compiles weekly reports of influenza-like illness from a sentinel network of about 40 medical providers throughout the state during these months. This network is part of a CDC-sponsored system designed for nationwide monitoring of influenza. In addition, a dozen Michigan laboratories submit clinical specimens to MDCH for viral isolation on a weekly basis during the influenza season.

Michigan-specific influenza data can now be accessed through our Bureau of Laboratories home page <http://www.mdch.state.mi.us/pha/bofl/>. To access this information, click on the link "Influenza Activity in Michigan". Results

of specimens submitted from sentinel physicians are tabulated along with the statewide laboratory surveillance data provided to MDCH. Updated information will be available on a weekly basis.

2000-2001 Season Summary

Despite concerns about the possible effects of delays in the availability of influenza vaccine last fall, Michigan experienced only moderate to light influenza activity during the 2000-2001 season. This level of activity was consistent with the national picture of influenza, which was characterized as mild by the Centers for Disease Control and Prevention (1). Both in Michigan and nationally, the percentage of deaths attributed to pneumonia and influenza did not exceed the epidemic threshold during the 2000-2001 season.

The 2000-2001 influenza season's first laboratory confirmation by the Michigan Department of Community Health (MDCH) Laboratory occurred in mid-December. These early isolates were identified as influenza A (H1N1) which went on to predominate during the first half of the season in Michigan. However, as the season progressed, influenza type B was the primary circulating strain identified. The vaccine covered both of these circulating strains. See graph. This circulation differed from the past three consecutive influenza seasons in Michigan where influenza A (H3N2) was the prevailing strain.

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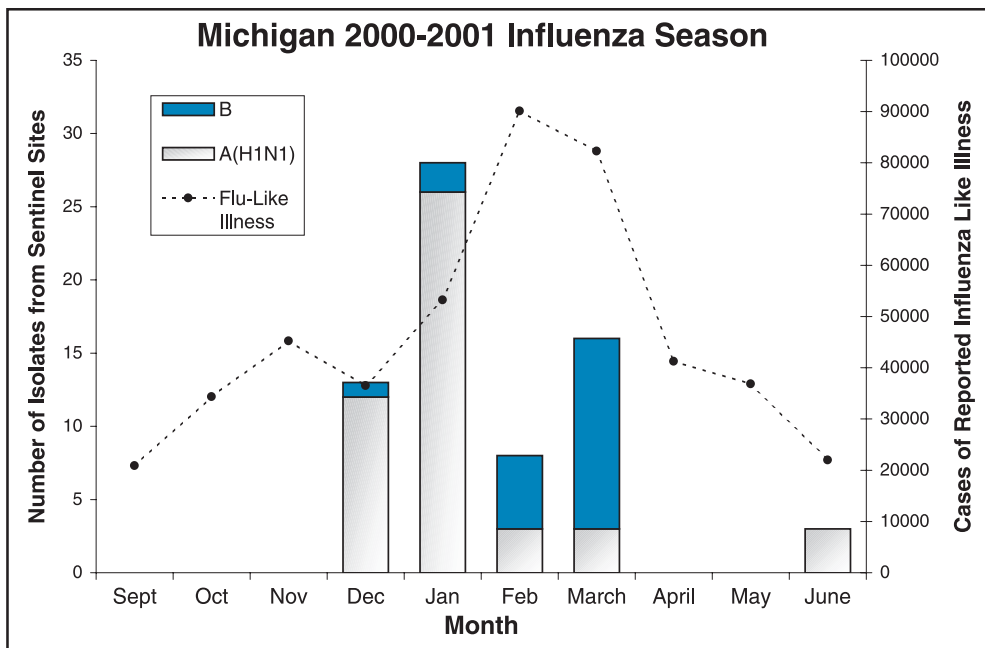


TABLE OF CONTENTS	
Self-Reported Antiretroviral Compliance Among HIV-Infected Persons in Detroit	2
Bioterrorism Self Study CMEs Available from MDCH ..	3
MDCH Responds to Terrorist Activities	3
Hepatitis Presentation	3
Immunization Update Newsletter	3
The Risk of Hepatitis C Virus Transmission After Tattooing	4
Injury Surveillance in Michigan	4
HIV in Michigan: Then and Now	5
Detecting Foodborne Illness	6
Employee Focus: Rosemary Franklin	7
Publications	7
Recognition	7
Unintended Pregnancies Resulting in Live Births in Michigan, 1988-1999	8
West Nile Virus Arrives in Michigan	9
Awards	9
New Employees	10
Remembering Dr. Kenneth Wilcox	10
Michigan Epidemiology Conference 2002	11

Self-Reported Antiretroviral Compliance Among HIV-Infected Persons in Detroit

The powerful effect that antiretroviral therapy has had on reducing mortality from HIV disease became evident in 1996 when the number of HIV-related deaths declined for the first time ever in Michigan and nationally.^{1,2} This decline coincided with the introduction of antiretroviral therapy regimens.³

As part of the Supplement to HIV/AIDS Surveillance (SHAS) study, Detroit area HIV/AIDS patients are asked several questions about the antiretroviral medications they are currently taking or have ever taken. The SHAS study involves a one-time interview of HIV/AIDS patients at two Detroit medical centers and one neighborhood clinic system.

The interview originally collected information on social and demographic information, social and health services, drug and alcohol use, sexual behaviors, and reproductive and child health history. When the highly active antiretroviral

treatments (HAART) were incorporated into clinical practice in 1996, a preventive therapy module was added to the SHAS interview that asks questions about current and past medications, compliance with drug regimens, factors related to non-compliance, and other therapy related questions. Currently, the SHAS study has completed 569 interviews.

The following tables summarize responses to SHAS questions about antiretroviral therapy. (Totals may vary from table to table due to skip patterns in the questionnaire or in a few cases, missing data.)

2. MMWR Morbidity and Mortality Weekly Rep. Update: trends in AIDS incidence-United States, 1996. *MMWR* 1997;46:861-867.

3. Palella FJ Jr, Delaney KM, Moorman AC, et al. Declining morbidity and mortality among patients with advanced human immunodeficiency virus infection. HIV Outpatient Study Investigators. *N Engl J Med.* 1998; 338: 853-860.

Table 1: Have you received antiretroviral drugs to treat your HIV infection, and are you taking antiretroviral medications now?

	Male	Female	All Persons
Total	395	174	569
Yes, currently taking	80%	76%	79%
Yes, but not currently	9%	12%	10%
No	10%	10%	10%
Unknown	1%	1%	1%

Table 2: Number of months from HIV diagnosis until beginning antiretroviral therapy

Number of Months	Percent of Patients (n=511)
1	93%
2	2%
3	<1%
Over 3	5%

Table 3: How often are you able to take the HIV/AIDS drugs exactly the way your doctor told you to take them?

	Male (n=318)	Female (n=134)	Total (452)
Rarely or never	8 (2%)	3 (2%)	11 (2%)
Sometimes	24 (8%)	6 (4%)	30 (7%)
Usually	67 (21%)	25 (20%)	92 (20%)
Always	215 (68%)	97 (72%)	312 (69%)
Unknown	4 (1%)	3 (2%)	7 (2%)

"Influenza" continued from page 1

Analysis of surveillance data (i.e., sentinel physician sites, laboratories and school-based reporting) suggested that influenza activity peaked during late January and February in Michigan. Michigan sentinel physician data showed that the percentage of patient visits for influenza-like illness (ILI) reached 2% during the second half of January through the month of February. This percentage did not exceed baseline (0%-3%) levels during any week in the season. The previous season (1999-2000) had peak percentages of patient visits for ILI ranging from 4% to 5%, starting over the holiday period in late December.

Michigan sentinel influenza data for 2000-2001 also revealed proportionately more laboratory-confirmed cases of influenza in persons under age 20, compared with last season. More than one-half of isolates in the 2000-2001 season were among young persons, compared to about a third during the previous season. In Southeast Michigan, we noted several post-season isolates in early June among very young children that were identified as A (H1N1) influenza viruses.

The following contacts at MDCH can respond to questions about influenza: Bureau of Epidemiology - Sally A. Bidol, (517) 335-8165; Bureau of Laboratories - Dr. Duane Newton, (517) 335-8067.

References

1. Update: Influenza Activity — United States and Worldwide, 2000—01 Season, and Composition of the 2001—02 Influenza Vaccine. *MMWR* 2001; 50(22); 466-70.

References

1. Michigan Department of Community Health. *Quarterly HIV/AIDS Statistics*, October 1997; 1.

Bioterrorism Self Study CMEs available from MDCH

The Michigan Department of Community Health (MDCH) has announced that a self-study educational program for physicians and health care providers is now available online.

This course, titled "The Clinical Aspects of Critical Biological Agents," is designed to familiarize health care providers with the biological agents considered by the Centers for Disease Control and Prevention to be the most likely to be used in a bioterrorist attack including Anthrax, Plague, Tularemia, Q Fever, Smallpox, Viral Hemorrhagic Fevers, Viral Equine Encephalitis, Botulinum Toxin, Ricin, and Staphylococcal Enterotoxin B.

The program was developed and designed by MDCH and has been approved by the Public Health Consortium for two hours of category I continuing medical education credit. The department has worked cooperatively with the Michigan Association of Public Health and Preventive Medicine Physicians to make this training available.

The course is available at www.mdch.state.mi.us/pha/bio/ or www.mapp.org. In addition to making the presentation available for credit, interested individuals may download the presentation to be used in whole (or part) for presentations to their colleagues. If you have any questions or comments about the website and the files please contact the MDCH Surveillance Systems Section (MDCH_ENS@state.mi.us).

Sponsored by the Public Health Consortium

The Public Health Consortium, an organization accredited by the MSMS Committee on CME Accreditation, designates this activity meets the criteria for a maximum of two credit hours in Category I toward the requirements for Michigan relicensure and of the Physician's Recognition Award of the AMA provided it is completed as designed.

MDCH Responds to Terrorist Activities

Since being funded by the Centers for Disease Control and Prevention (CDC) in the fall of 1999, the bioterrorism program at MDCH has been a key partner in Michigan's emergency preparedness activities. In the wake of the events of September 11, the bioterrorism program staff have played a vital role in the response activities taking place in Michigan.

Within hours of the attack, MDCH staff, along with staff from all other state departments, reported to the Michigan Emergency Operations Center (EOC) to provide input on a coordinated state response. Those at the Michigan EOC were in contact with the federal EOC to receive information on the federal response and to provide input from Michigan as needed. Shortly thereafter, the MDCH Emergency Notification System (ENS) was activated, with the first alert being sent to local health departments (LHDs) around the state by fax and e-mail. By 1:30 that afternoon, the CDC had issued an alert calling for increased disease surveillance. This alert was promptly forwarded to LHDs using the ENS. Since that day, the

MDCH ENS has been used to forward information regarding mental health issues and further CDC and MDCH updates.

In addition to keeping LHDs informed, MDCH staff inventoried available supplies of tetanus-diphtheria vaccine and notified the CDC of our available resources that could be sent upon request. However, supplies from Michigan were not dispatched to either New York or Washington, as the vaccine manufacturers were able to meet demand.

MDCH continues to respond to requests for presentations, information pamphlets, posters, and other educational materials. We are trying to meet this demand as best we can and will forward the requested materials as soon as they become available. LHDs have all been sent a CD containing a physician self-study course for which there are CMEs as well as a BioTerry(manual of information on bioterrorism. The self-study course can also be found online at www.mapp.org or www.mdch.state.mi.us/pha/bio/ (see sidebar).

Hepatitis Presentation

MDCH would like to ensure that health care providers have up-to-date information on the hepatitis viruses. The more health care providers know about hepatitis, the more they can help their patients understand how to protect themselves from becoming infected. MDCH offers a free 1.5 hour Hepatitis A-E in-service that provides a basic overview of the hepatitis viruses including signs and symptoms, recommended immunization schedules, vaccine availability, modes of transmission, and treatment options. The presentation has been approved for 1.5 contact hours for all nurses completing this in-service. For additional information or to schedule a presentation, please call Pat Fineis at (517)335-9443 or (800)964-4487.

For specific epidemiologic questions regarding Hepatitis A or Hepatitis B&C, please contact Sally Bidol or Kim Kirkey, respectively, at (517) 335-8165.

Immunization Update Newsletter

The Michigan Immunization Update newsletter is distributed on a quarterly basis by the Immunization Section of the Bureau of Epidemiology's Communicable Disease and Immunization Division.

If you would like to receive a copy of the next issue of The Michigan Immunization Update, fax your complete name and home address to Rosemary Franklin at (517)-335-9855 or e-mail Franklin at: FranklinR@state.mi.us. Home addresses are preferred. Questions about The Michigan Immunization Update may be directed to Franklin through e-mail (FranklinR@state.mi.us) or by calling 517-335-9485.

The Risk of Hepatitis C Virus Transmission After Tattooing

Kim Kirkey

An estimated 178,900 Michiganders are infected with Hepatitis C virus (HCV). Michigan residents at the highest risk of infection include those with a history of injecting drug use, those who received a blood transfusion before July 1992, those with hemophilia who were treated with clotting-factor concentrates produced before 1987, and those on chronic hemodialysis. Although the role of sexual transmission has not been well defined, persons with a history of multiple sexual partners or sexually transmitted diseases also appear to be at increased risk. HCV transmission can also occur in the healthcare setting, usually after percutaneous injuries and in children born to HCV-infected mothers.

Tattooing is often cited as an additional risk factor for HCV transmission. HCV and other blood-borne pathogens may be transmitted through tattooing by the reuse of tattooing needles or dye, inadequate sterilization of tattooing needles between customers, or breaks in sterile technique, such as the artist pricking the back of his or her hand to test the needle's sharpness. Nonetheless, the association between tattooing and HCV infection remains controversial. A recent study on the association between tattooing and HCV infection performed at the University of Texas, Southwestern Medical Center found that tattooing was independently associated with HCV infection and accounted for 41% of the

HCV infections in their study. However, data collected by the CDC conflict with these results. The Sentinel Counties Study of Acute Viral Hepatitis has found that less than 1% of persons with newly acquired HCV gave a history of being tattooed.

According to the CDC, the source of transmission is unknown in 10 percent of HCV infections. Further studies are needed to determine if tattooing is a significant risk factor for HCV. The Bureau of Epidemiology plans to collect more extensive risk factor data from HCV-infected individuals in the near future to assess the significance of tattooing in the transmission of HCV.

Injury Surveillance in Michigan

Thomas Largo

Injuries take a severe toll on society and are one of the most important public health problems in the nation. Recognizing this, MDCH established an injury prevention program in the Division of Chronic Disease and Injury Control in the early 1990's. Last year MDCH was awarded funding from the CDC to develop a more comprehensive program, including improving injury surveillance in Michigan. The Bureau of Epidemiology is collaborating with the injury prevention program to develop injury surveillance in Michigan.

The first product of this collaboration is the report "Injury Mortality in Michigan, 1994-1998". This report summarizes the magnitude and characteristics of injury deaths in Michigan (1994-1998).

During the 1994-1998 study period, an average of 5,086 Michigan residents died each year due to injuries and poisonings. Of these deaths, 2,967 (58 percent) were unintentional, 1,013 (20 percent) were suicides, 857 (17 percent) were homicides, and 250 (5 percent) were of undetermined intent or adverse effects of healthcare. Overall, death rates were highest among males, African Americans, and those aged 75 and older. Populous counties generally had the highest rates for homicides. Conversely, the less populated counties

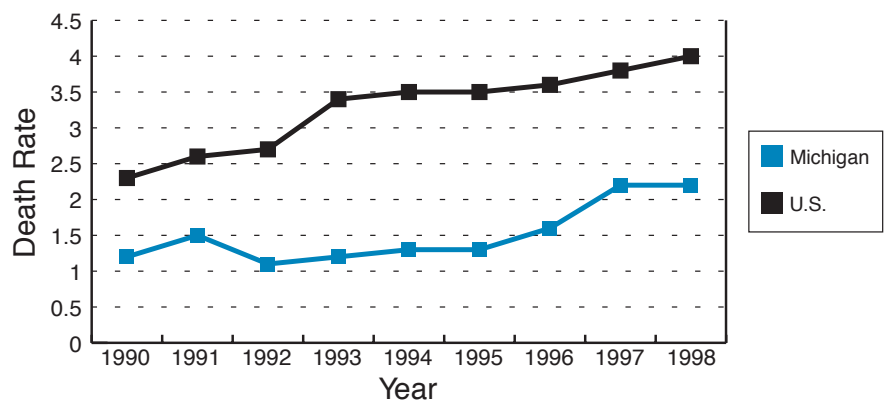
had the highest rates for suicides and unintentional injury fatalities.

Temporal analyses extended back to 1990 to provide better context for the 1994-1998 data. Between 1990 and 1998, the overall injury and poisoning death rate for Michigan residents declined 13 percent. Trend lines were either flat or downward sloping for all injury causes examined except unintentional poisoning. Between 1990 and 1998, the death rate for this cause among Michigan and U.S. residents nearly doubled (see Figure) and warrants additional analyses.

The Bureau is working with the injury prevention program to develop a report on injuries that require hospital inpatient care, and is in the second year of a five-year grant to develop an occupational injury and disease surveillance system in Michigan.

For a copy of "Injury Mortality in Michigan, 1994-1998," or more information, contact Linda Scarpetta at (517) 335-8397 or Tom Largo at (517) 335-9647.

Death Rates Due to Unintentional Poisonings Michigan and U.S. Residents, 1990-1998



Rates are deaths per 100,000 population. Includes ICD codes: E850-E869.

HIV in Michigan: Then and Now

Eve Mokotoff

June 5, 1981 marked the date of the publication in the CDC's *Morbidity and Mortality Weekly Report* of the first cases of what we now call AIDS. The attention was focused on the East and West coasts of the United States, where these first cases were identified. What was happening in Michigan at that time?

The first case of AIDS in Michigan was diagnosed in 1981. In August of 1981, a black man was admitted to a Detroit hospital. He was Haitian and had a history of having sex with other men. Severe hypoxia with a normal chest X-ray was noted on admission, and rapid progression to respiratory failure occurred. Open lung biopsy showed heavy *Pneumocystis carinii*. Additional pathogens recovered included *Giardia* from the stool, and cytomegalovirus (CMV) from the lung. He subsequently died in the ICU. Three months later a white man from Wayne County with a history of having sex with other men was admitted to an Oakland County hospital and died that same month. It was a full year before the next case occurred. In December of 1982,

another black man from Detroit who had a history of having sex with other men was diagnosed with AIDS. He lived for seven months after his initial diagnosis. From that point onward the epidemic increased more rapidly. In 1983, there were 22 cases of AIDS diagnosed in Michigan.

What was the epidemiologic profile of these early cases, and does it differ from today's picture? A common perception is that the HIV/AIDS epidemic started in the U.S., and in Michigan, among white men who have sex with men (MSM). However, as described above, two of the first three cases in Michigan were among black MSM. The first 25 cases are described in the accompanying table. The most striking feature of these early cases is how much they resemble the cases we have seen more recently. Even then, seven of the first 25 cases (28%) were black MSM (one of whom was both MSM and an injection drug user [IDU]); just under half were white MSM. The remaining cases included members of groups we continued to see over the next two decades: a black woman IDU, a baby, a blood product recipient, a black man with an unidentified risk, and

two MSM from other racial/ethnic groups. Prevention has succeeded in making HIV-infection rare among infants and virtually non-existent among blood product recipients in the U.S. For those with sexually or parenterally transmitted HIV, our prevention methods continue to evolve.

What does all this mean to us today, in 2001? Prompt recognition of unusual clinical situations, and effective communication between clinicians and public health agencies greatly expedited the early response to the AIDS epidemic. In addition, the analysis of cases from just the first two or three years clearly demonstrated the groups most at risk for HIV-infection/AIDS. None of us expected in 1981 or 1982 that we were witnessing the first signs of a global epidemic with far reaching medical, scientific, and political consequences. Then, as now, our goal in the MDCH HIV/AIDS Surveillance Section is to collect, interpret, and present data to assist funding agencies, health care workers, prevention experts, researchers, and the community to have accurate and timely information for fighting this epidemic.

AIDS Cases Reported in Michigan 1981-1983

Sex/Race/Behavioral Group	1981	1982	1983	Total
Males:	2	1	20	23
White MSM	1	0	10	11
White Blood Product Recipient	0	0	1	1
Black MSM	1	1	4	6
Black IDU	0	0	1	1
Black MSM/IDU	0	0	1	1
Black No Mode Identified	0	0	1	1
Other Race MSM	0	0	2	2
Females:	0	0	2	2
Black IDU	0	0	1	1
Black infant - perinatal transmission	0	0	1	1
Total	2	1	22	25

NEW Resource

Earlier this year, *Diagnosis and Management of Foodborne Illnesses: A Primer for Physicians* was released by the CDC and the American Medical Association (AMA) in collaboration with the FDA and USDA. This primer is a concise source of updated and accurate information on new and re-emerging causes of foodborne disease to help clinicians in recognizing, treating, and reporting them. It is available free of charge on the AMA website www.ama-assn.org and in the Jan 26, 2001 issue of *Morbidity and Mortality Weekly Report* www.cdc.gov/mmwr.

Detecting Foodborne Illness

Sally A. Bidol

Foodborne illness can result from the ingestion of food or drink contaminated with biological or nonbiological agents. Most clinical cases exhibit symptoms such as nausea, vomiting, diarrhea and abdominal pain, and are typically associated with bacteria such as Salmonella, Shigella, Campylobacter, *E. coli*, or with enteric viruses or parasites. Other food-related illness such as listeriosis, botulism, and that due to toxins can have varied systemic manifestations, including neurologic symptoms.

The table below lists some outbreaks traced to food products affecting Michigan residents in the recent past. Most of these involved commercial foods and some resulted in product recalls.

Public Health Reporting: You Make the Difference

The compilation of reports from individual providers allows public health authorities to identify outbreaks that otherwise may not be identified. Michigan law requires any unusual occurrence or outbreak of any disease or condition to be promptly reported to the local health department, in addition to some seventy specific diseases and conditions. Clinicians should be aware that an individual case of certain diseases may represent the sentinel case of a more widespread situation.

The largest-ever outbreak of *E. coli* O157:H7 in North America (Walkerton, Ontario) and the emergence of West Nile

Virus in New York City were each initially signaled by an astute clinician who reported suspicious illness to local health authorities. These actions ultimately led to the early detection of the outbreaks.

There is also the possibility of intentional contamination of food or water with a biologic agent. Early cases of such an event would probably be identified by primary health care providers and emergency room personnel. Immediate reporting by these clinicians would be crucial to public health response measures.

Your prompt reporting actions can:

- Instigate an investigation to identify the source of the outbreak and prevent additional exposures.
- Facilitate administration of prophylactic measures to exposed individuals e.g. administration of immune globulin for Hepatitis A exposure.
- Allow public health authorities to communicate information to area practitioners
- Provide information to potentially exposed persons and the general public.

Lessons Learned from Investigation of Foodborne Illness

Investigations of foodborne illness help to identify and understand factors that are important for control and prevention. It is especially critical to determine what happened at the points in the path from harvest to table, so that the problems that led to illness can be identified and steps can be taken to prevent these problems in the future. Regulatory authorities use this information to guide food industry practices, strengthen or add laws, and train both food workers and the general public about food hazards. These are important safety outcomes for us all.

Michigan Outbreaks Traced to Food Products

Year	Microorganism (Etiology)	Vehicle (Source)	State(s) involved	# of Deaths
2001	<i>Escherichia coli</i> O157:H7	Ground beef	MI / multi-state	0
2001	<i>Campylobacter jejuni</i>	Raw milk	MI	0
2001	Scombroid fish poisoning	Escolar and tuna	MI	0
2000	<i>Listeria monocytogenes</i>	Turkey deli meat	MI / multi-state	7 (3 fetal)
2000	<i>Salmonella enteritidis</i>	Eggs	MI	0
2000	<i>Salmonella enteritidis</i>	Macaroni salad	MI	1
2000	Norwalk Virus	Bakery cakes	MI	0
2000	<i>Escherichia coli</i> O157:H7	Ground beef	MI / multi-state	2
2000	<i>Escherichia coli</i> O157:H7	Ground beef	MI	0
2000	<i>Campylobacter jejuni</i>	Raw milk	MI / multi-state	0
2000	<i>Salmonella braenderup</i>	Salad dressing	MI	0
1999	<i>Salmonella muenchen</i>	Unpasteurized Orange Juice	MI / multi-state & Canada	1
1999	<i>Salmonella muenchen</i>	Alfalfa sprouts	MI / multi-state	0
1998/99	<i>Listeria monocytogenes</i>	Hot dogs, deli meat	MI / multi-state	21 (6 fetal)
1998	<i>Salmonella agona</i>	Toasted oats cereal	MI / multi-state	0
1997	<i>Escherichia coli</i> O157:H7	Alfalfa sprouts	MI / VA	0
1997	Hepatitis A	Strawberries	MI / multi-state	0

Employee Focus: Rosemary Franklin

Rosemary Franklin is the Information and Education Coordinator in the Outreach and Education Section, Communicable Disease and Immunization Division. Rosemary joined the immunization program in 1993 with a background in labor and industrial relations, but she has found her true calling as a conference coordinator extraordinaire and as editor of *Immunization Update* which goes out almost quarterly to a mailing list of over 10,000 grateful readers.

Rosemary is responsible for organizing six regional one-day immunization conferences each fall. These conferences began under Rosemary's direction and have grown from a single conference in East Lansing to six conferences in East Lansing, Kalamazoo, Ypsilanti, Troy, Gaylord and Marquette with total attendance of over 1,200. Rosemary's attention to detail and outstanding organizational skills result in conferences that run smoothly and are a pleasure to attend.

Rosemary also works with various professional associations such as the Michigan State Medical Society and the Michigan Chapter of the American

Academy of Pediatrics to provide them with up to date immunization information for their members. Rosemary is also responsible for coordinating distribution of all immunization educational brochures and distribution of the Alliance for Immunization in Michigan Provider Tool Kit which is updated and distributed annually.

Rosemary brings competence, professionalism, dedication, enthusiasm, and a sense of humor to her work. She gets the major share of the credit for much of the educational activities that are part of the division's immunization program. Rosemary is a firm taskmaster, and because of her kickboxing prowess, we all tend to respond to her requests as quickly as possible.

Rosemary has a large extended family that has thoughtfully provided her with many adorable nieces and nephews whose photos adorn her office (and sometimes our educational pieces) and she is a part-time groupie for her husband Tom's band. If you don't know Rosemary, stop by her office and introduce yourself-you'll be glad you did!

Publications

Michigan Department of Community Health. *An Analysis of Michigan Data Sources Relevant to Injuries*. Lansing, MI: MDCH, June 2001.

Reeves, MJ, Rafferty AP, McGee HB, Miller C. Prevalence of Healthy Lifestyle Characteristics-Michigan, 1998 and 2000. *MMWR* 2001; Vol 50; No. 35:758-761.

Recognition

Linda Scott recently attended the International APIC (Association for Professionals in Infection Control and Epidemiology) meeting in Seattle and was given an award for her contribution as an author of the "International Infection Control Week" pamphlets. She was also a contributor, and an editor, for the infection control practitioner certification review book.

ANNOUNCING THE 2002 COMMUNICABLE DISEASE CONFERENCES

TENTATIVE DATES:

MAY 22, 2002 OKEMOS, MI (LANSING AREA)

MAY 31, 2002 GAYLORD, MI

STAY TUNED FOR MORE INFO IN THE NEXT NEWSLETTER

Unintended Pregnancies Resulting in Live Births in Michigan, 1988-1999

Elizabeth Eby

An unintended pregnancy is one that was either unwanted or mistimed [1]. We analyzed the data from the Pregnancy Risk Assessment Monitoring System (PRAMS) to examine live births resulting from unintended pregnancies in Michigan between 1988 and 1999. PRAMS is a population-based annual survey of maternal behaviors and experiences around a woman's pregnancy and during the early infancy of her child.

Overall, there has been little change in the percentage of unintended live births in Michigan between 1988-1999 (Figure 1). However, the percentage of unintended live births has increased among young women (< 25 years) and among women with a high school education or less.

Using combined data from 1996-1999, an estimated 42.7 percent of the live births in Michigan were unintended. The percentage of unintended live births

was higher among teenage women (81.5 percent), unmarried women (74.1 percent), women who earned less than \$10,000 annually (72.7 percent), women who had not completed high school (72.7 percent), and black women (69.3 percent).

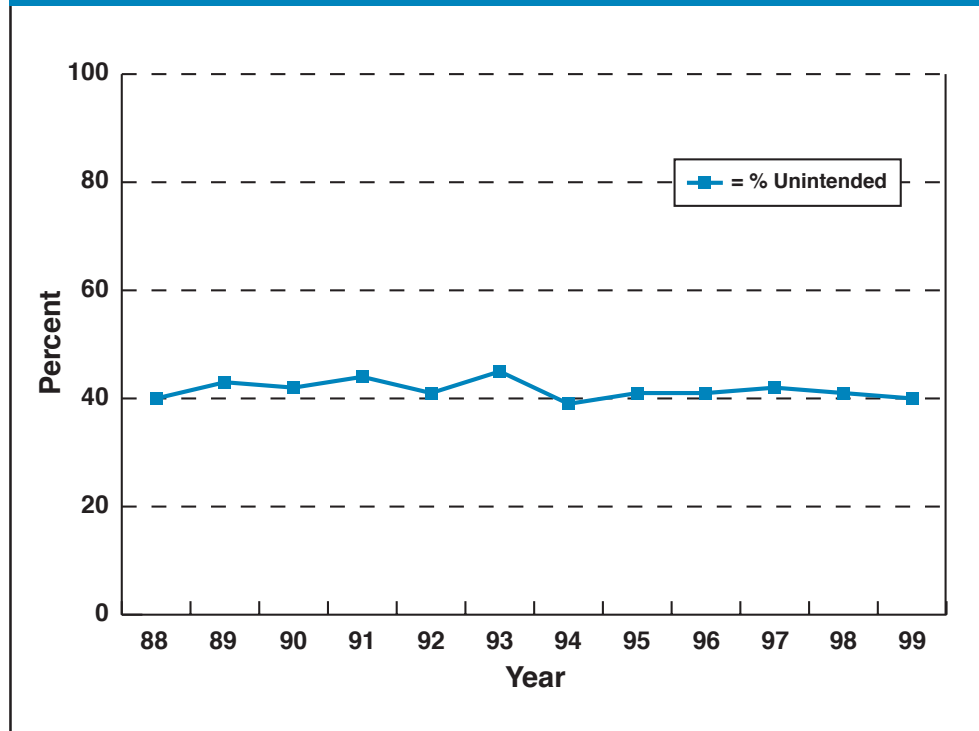
Women who delivered unintended live births tended to have more health-related risk factors during their pregnancy compared with women who had not had an unintended delivery, including smoking, physical abuse, depression, and delayed (after the first trimester) or no prenatal care. Also, a greater proportion of infants born to mothers with unintended conceptions were premature, of low birth weight, or admitted to the neonatal intensive care unit.

There are several public health implications of unintended live births. Teenage women who deliver unintended live births tend to have diminished

socioeconomic well-being, including being more likely to receive welfare [1] and experience poverty later in their lives [2], more likely to be single parents [3], and less likely to obtain education beyond high school [1]. All of these in turn have implications for the health and well being of these women. The children of unintended pregnancies are more likely to be subject to child abuse and neglect [1] and tend to score lower on several measures indicating reduced cognitive, behavioral, and emotional development. [4]

The Bureau of Epidemiology, in cooperation with the Division of Child and Family Services, will continue to monitor the percentage of unintended live births and to investigate issues related to unintended pregnancies. The bureau also analyzes several other pregnancy-related issues using the PRAMS database. If you would like more information regarding PRAMS analysis, please contact Liz Eby at 517-335-9456.

Figure 1. Percentage of live births resulting from unintended pregnancies in Michigan, 1988-1999.



1. Committee on Unintended Pregnancy, Institute of Medicine, National Academy of Sciences. *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*. Washington DC: National Academy Press, 1995.
2. Moore K, Myers D, Morrison D, Nord C, Brown B, Edmonston B. Age at first childbirth and later poverty. *J Res Adol.* 1993;3:393-422.
3. Hayes C, ed. *Risking the Future*. Vol. 1. Washington DC: National Academy Press; 1987.
4. Baydar N. Consequences for children of their birth planning status. *Fam Plann Perspect.* 1995;27:228-34.

West Nile Virus Arrives in Michigan

On August 23, 2001, the Michigan Department of Community Health (MDCH) reported that West Nile Virus (WNV) had been detected in two crows in Michigan, marking the first time the virus had been found in the state. The detection of WNV followed the institution of a collaborative statewide surveillance effort for WNV earlier this year.

As of October 8, a total of 573 birds have been submitted for WNV testing in Michigan and 65 of them have tested positive. The distribution of positive birds is shown on the map below. In addition to the birds, two mosquito pools (one in Oakland county and one in Macomb) also tested positive for the virus. To date, there have been no human cases of WNV encephalitis reported in Michigan.

Detection of WNV in Michigan continues the trend of westward geographic expansion of the virus since it was first introduced into the United States in New York City in 1999.

Nationally, through October 2, 2001, there have been a total of 5,251 positive birds (3,060 crows and 1,191 other birds) reported from 23 states and the District of Columbia. In addition, there have been 620 WNV-positive mosquito pools (12 states) and 25 human cases (six states) of WNV encephalitis reported. Additionally, 108 horses with WNV infection have been reported from 11 states. The current range of WNV extends as far west as Iowa.

As part of the surveillance effort, dead birds and blue jays are still being tested for the presence of WNV. At this time, crows and blue jays are being accepted from counties that have not had previously positive birds. Citizens are encouraged to call the MDCH WNV Hotline at 888-668-0869 to report all dead bird sightings, as the sightings are an important marker of potential WNV activity. For more information, citizens may contact the hotline or visit the WNV website at www.mdch.state.mi.us and click on the mosquito labeled "West Nile Virus".

AWARDS

The Epidemiology Services Division was awarded two additional asthma grants from CDC. The first grant award will be used to develop a rapid notification and identification system for asthma deaths among 2-34-year-olds. The division is partnering with Dr. Kenneth Rosenman at MSU and the Child Death Review Team staff at MPHI to develop this system. A statewide asthma review panel will identify preventable risk factors for asthma mortality. The division also received a \$500,000 CDC grant to implement the recommendations of our Asthma Strategic Plan. These funds will be used to maintain and expand existing activities over a five year period.

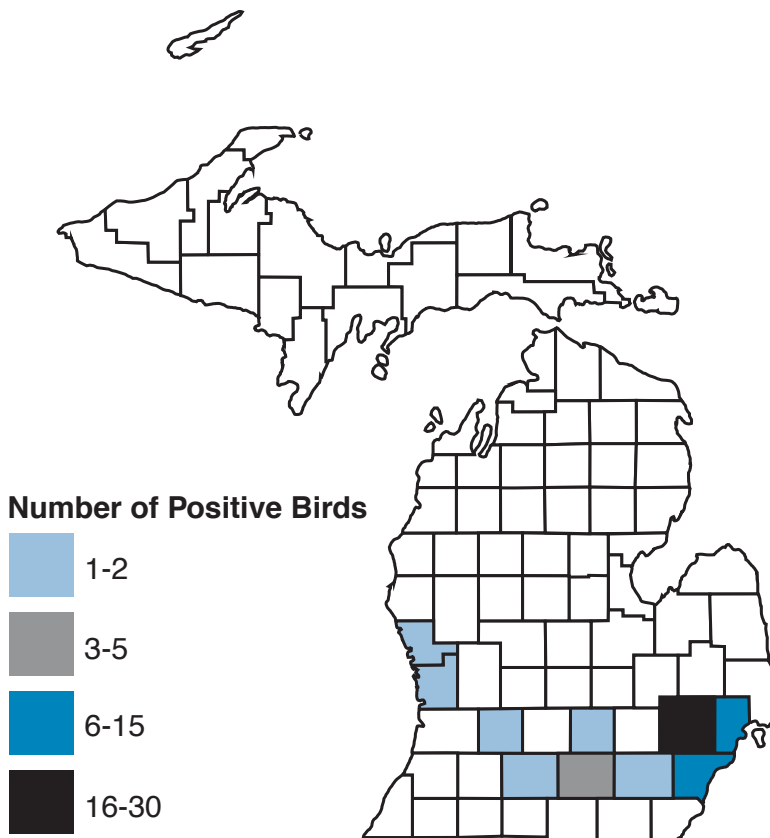
Michigan was one of four states recently awarded CDC funds to develop a prototype for a hospital-based, statewide acute stroke registry. Mat Reeves of the Department of Epidemiology at MSU is the principal investigator and Corinne Miller, Director of the Division of Epidemiology Services, is the co-principal investigator. Five clinical co-investigators from a variety of health systems around the state are also involved in the project. Approximately \$950,000 was awarded. The intent of the project is to develop improvements in the prevention, treatment, and outcomes of stroke.

Awarded August 2001, the "Indoor Air Quality Instrumentation" cooperative agreement will provide \$25,000 for the purchase of basic indoor air monitoring equipment for distribution to local health departments throughout Michigan.

Awarded by CDC the "Public Health Laboratory Biomonitoring Planning Grant" beginning in October 2001, will develop a comprehensive strategic plan to enhance biomonitoring activities in Michigan.

Awarded by Children's Hospital of Michigan, this grant, starting in Fall 2001, will analyze data from Michigan's two state poison control centers to identify risk factors and target interventions.

Michigan WNV-Positive Bird Specimens, Through September 26, 2001



New Employees

Chidinma (Chidi) N. Alozie, M.D., M.P.H., is a CDC Epidemic Intelligence Service Officer and will be working in the Epidemiology Services Division in both the chronic disease and maternal and child areas. Originally from New York, Alozie completed her medical training at Yale University and a postgraduate residency in OB/GYN at the University of Michigan. Most recently, she was with New York University School of Medicine working at Bellevue Hospital.

Gabriel Palumbo, M.B.A., has been assigned by CDC to the Infectious Disease Epidemiology Section as a tuberculosis elimination senior public health advisor (PHA). Palumbo joined the CDC in 1993. Prior to his assignment in Michigan, Palumbo worked with TB control programs in Hawaii, Wisconsin, and New York. Most of his work has focused on providing technical advice and assistance to TB control and prevention activities. Palumbo received his M.B.A. from California Lutheran University (1992) and is currently a master's degree candidate at Emory University, Rollins School of Public Health.

Hien Luu, M.S., recently joined the Communicable Disease and Immunization Division staff in the HIV/STD and Blood-Borne Infections Section as an HIV epidemiologist. She will be the study coordinator for the Survey of HIV Disease and Care Project. Luu received her B.S. in Biology from UNC-Greensboro and recently completed her M.S. in Epidemiology from the University of Buffalo (S.U.N.Y.). Her research interests include infectious disease and reproductive epidemiology of Asian women.

Rebecca Malouin, M.P.H., joined the Division of Epidemiology Services as an epidemiologist on a HRSA-funded grant on pregnancy-related complications and mortality. Malouin completed an M.P.H. in international health in 1997 and will complete a

Ph.D. this fall, both from Johns Hopkins University, School of Hygiene and Public Health. Her dissertation focused on behavioral and community-based interventions related to Lyme Disease in Baltimore County, Maryland. Malouin has worked for the Maryland Dept. of Health and Mental Hygiene as an epidemiologist, in Niger as a Peace Corps Volunteer, and a consultant with Helen Keller International and USAID.

Martha Stanbury, M.S.P.H., comes to the Division of Environmental and Occupational Epidemiology after 17 years in the New Jersey Department of Health and Senior Services, where she ran their occupational health surveillance program and was assistant to the state epidemiologist for the last two years. Stanbury will be working with Jill Ginnebaugh and Tom Largo on the NIOSH-awarded Occupational Health Surveillance grant.

Staff changes

Jim Kent, M.S., who has been with the HIV/AIDS Surveillance program since

1987, has left to join his wife in Seattle, WA, where the King County HIV/AIDS Surveillance Program is fortunate to gain his expertise.

Jill Ginnebaugh, M.P.H., is now examining occupational pesticide exposures in Michigan with the Environmental and Occupational Epidemiology Division. She completed her undergraduate degree in Chemistry at CMU in 1981 and her M.P.H. in environmental health from the University of California, Berkeley. At Berkeley, she participated in case control studies of arsenic and bladder cancer. She then performed infectious disease surveillance in the San Francisco area before joining the California Department of Health Services as an epidemiologist. In 1999, she began working for MDCH.

Michele Fox Melendez, M.P.H., has moved from our Detroit to the Lansing office to take the position of HIV community planning epidemiologist. She will be assisting the various regions and the state-planning group with using epidemiologic data for prevention and care planning purposes.

Remembering Dr. Kenneth Wilcox

Dr. Kenneth Wilcox, state epidemiologist and director of the Bureau of Epidemiology from 1991 until his retirement in 1997, passed away on June 15, 2001. After earning a medical degree from the University of Chicago in 1955 and completing an internship and a pediatrics residency in Cleveland, he served the citizens of Michigan for 35 years. Wilcox began his career in Michigan with the Bureau of Laboratories as coordinating physician, assistant chief, deputy chief, and director (1962-1975). Wilcox then served as chief of the Bureau of Disease Control and Laboratory Services (1975-1982),

chief of the Bureau of Laboratories and Epidemiology Services (1982-1989), chief medical executive (1989-1991), and chief of the Division, and later Bureau, of Epidemiology. He also served as the state epidemiologist from 1981 to 1997. After his retirement, Wilcox continued to make contributions to the health of Michigan residents through his work with the Asthma Task Force. MDCH Director Haveman characterized Wilcox as "an outstanding health professional who proudly served the state of Michigan. ... His professionalism and genuine concern for the health of Michigan citizens will long be remembered."

MICHIGAN EPIDEMIOLOGY CONFERENCE 2002

March 14 & 15, 2002

Pierpont Commons

University of Michigan, North Campus, Ann Arbor

Day 1: Regional Epidemic Intelligence Service (EIS) Conference

Day 2: First Annual Statewide Epidemiology Conference

An invitation extended to all epidemiologists and those interested in epidemiology throughout Michigan including: state and local government health agencies, universities, hospitals, health insurance organizations, research institutes, consulting firms, pharmaceutical companies, and private industries.

Conference will include: presentations, invited talks, posters, MPHA Epi Section business meeting, information booths, job postings, and opportunities for career networking. Free conference. Limited travel awards available.

Distinguished Guest Speaker (Day 2):

David W. Fleming, M.D.
Deputy Director
for Science and Public Health
Centers for Disease Control and Prevention
Agency for Toxic Substances and Disease Registry

Dr. Fleming is Deputy Director of CDC for Science and Public Health, and Deputy Administrator, ATSDR. In this capacity he provides leadership and direction in shaping policy and developing and using CDC's and ATSDR's capabilities in science and public health practice. He serves as the principal source of expertise and advice to the Director for Science and Public Health. He oversees CDC offices of Minority Health, Global Health, Women's Health and the Associate Director for Science.

Sponsors: MDCH Bureau of Epidemiology [Permanent designated host site of Regional EIS Conference]
Michigan Public Health Association Epidemiology Section
University of Michigan Department of Epidemiology
Michigan State University Department of Epidemiology
Michigan Association of Public Health and Preventive Medicine Physicians

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First Annual Statewide Epidemiology Conference Registration Form

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Will Attend: Day 1 _____ Day 2 _____ Both Days _____ [Info packet will be sent]

Return lower portion to: MI Department of Community Health, 3423 N. MLK Blvd., PO Box 30195, Division of Communicable Disease and Immunization, Attn: Dawn Sievert Corning Rm 302, Lansing, MI 48909. For questions call (517)335-8165

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