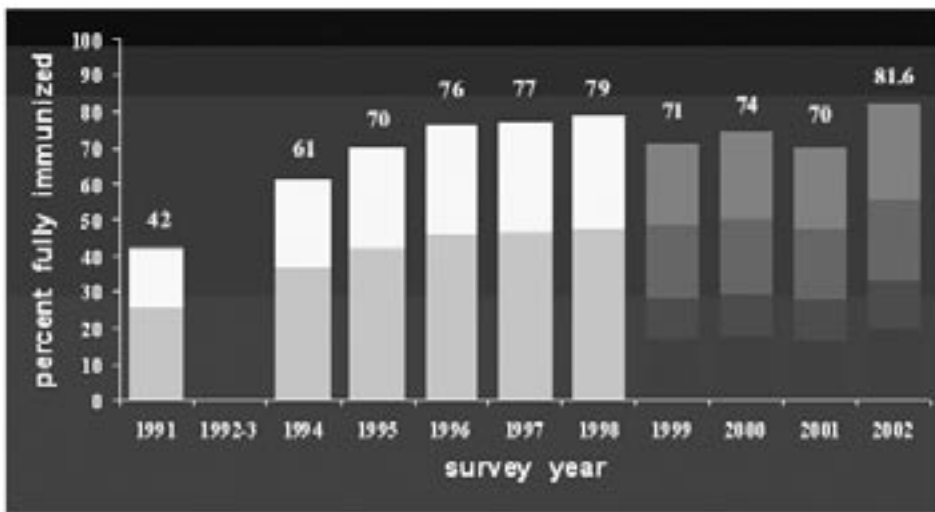


IMMUNIZATION PROGRAM RECEIVES NATIONAL ACCOLADES

By: Rosemary Franklin and Therese Hoyle

Immunization Levels for Michigan Children Ages 19 – 35 months



1991-1998:
4 doses DTP,
3 doses of polio,
1 dose of MMR

1999- 2002:
4 doses DTP,
3 doses of polio,
1 dose of MMR,
3 doses of Hib,
3 doses of hepatitis B

Source: 1991 data are from a retrospective survey by MDCH. National Immunization Survey, CDC.

The Centers for Disease Control and Prevention's (CDC) National Immunization Survey places Michigan sixth in the nation for the percentage of fully immunized children. Michigan's immunization levels improved from 70.0 percent in 2001 to 81.6 percent in 2002 for children aged 19 to 35 months, an increase of nearly 12 percent. The national average is 74.8 percent.

In 1994, CDC ranked Michigan last in the nation with an immunization level of 61 percent. The 2002 figures reflect children protected with 4 doses of DTap, 3 doses of polio, 1 dose of MMR, 3 doses of Hib, and 3 doses of hepatitis B vaccines (4:3:1:3:3 series).

The Michigan Department of Community Health (MDCH) attributes this increase to several factors. Michigan's comprehensive immunization program and strong collaboration with local

health departments and health care providers have played important roles in this dramatic increase. Dedicated and talented health care professionals, both at the state and local levels, have committed to improving immunization rates in this state and this success is a result of their outstanding work.

The Michigan immunization program has applied many well-planned initiatives to increase immunization levels and provide vaccine through a network of public and private health care providers. Providing enhanced educational services and technical consultation to public and private providers have also been essential in increasing immunization levels.

Over the past two years, MDCH has worked closely with partners at the City of Detroit and the Wayne County Health Department to plan and implement ways to increase the

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Institutional Review Boards at Michigan Department of Community Health

By: Harry McGee, M.P.H.

Research may produce general benefits with no benefit and some risk to participants. The purpose of Institutional Review Boards (IRBs) is to protect the rights of human subjects in research studies. The impetus for them has been abuses beginning with Nazi research on prisoners in World War II. Continuing abuses, culminating with the 1972 revelation of the Tuskegee Syphilis Study, demonstrated these efforts were inadequate. It is especially relevant for us to note this was a public health activity. This prompted Congress to establish a permanent body with the authority to regulate all federally sponsored research involving human subjects. The legal basis to do this is the 1981 regulations: 45 CFR 46 and 21 CFR 50, 56, also known as the "Common Rule." In 2000, the Office of Human Research Protections (OHRP) was established in the secretariat of the of the Department of Health and Human Services (DHHS) in response to a recommendation by the National Bioethics Advisory Commission to establish a single authority to oversee research protections across all governmental agencies and departments.

We (MDCH) are subject to the provisions of the Common Rule

according to public law 99-158, Sec. 491 (a), November 20, 1985. Our "Assurance of Compliance" certifies that we will adhere to the provisions of the "Common Rule," for all research involving human subjects when the research is: sponsored by the department, or conducted by or under the direction of any employee or agent of the department in connection with his or her institutional responsibilities, or conducted by or under the direction of any employee or agent of the department using any property or facility of the department, or involves the use of the department's nonpublic information to identify or contact human research subjects or prospective subjects. Our assurance also obligates the department to adhere to the provisions of the "Common Rule" regardless of whether or not there are involved federal funds.

Here, at MDCH, the bureau or office director responsible for a project that may involve human subjects research must see that it is submitted to a human subjects committee member. Currently, the committee requires the study protocol and the informed consent documents to be submitted, and there is no specific form. The committee member determines if

the project involves human subjects. If human subjects are involved the proposal must be sent to the chair to "officially" determine if: it is human subjects research, or it is human subjects research that is exempt, or it is human subjects research that is eligible for expedited review, or it is human subjects research that is subject to full committee review. Bureau and office directors are responsible for insuring that research investigators: maintain signed consent documents for three years after completion of the study, provide a copy of the consent form to the subject at the time of consent, promptly report proposed changes to previously approved research, promptly report any injuries or other unanticipated problems, and provide annual reports (minimum) of the study's progress and status.

Until recently departmental employees performed all IRB activities on top of their regular job responsibilities. The volume of IRB material overwhelmed this system and the Department is working to establish full-time positions for an administrator and secretary. Hopefully this will allow more timely response to requests for IRB review.

Changes in HIV/AIDS Statistics Distribution

The HIV/STD and Other Bloodborne Infections section no longer mails hard copies of the quarterly Michigan HIV/AIDS Statistics, however we have developed a list serve for you to subscribe to in order to receive the statistics electronically. Please see the instructions below to sign up.

The webpage where users can subscribe or unsubscribe to the list serve can be found at: <http://www.localhealth.net/hivstats/subscribe.aspx>. The user just needs to choose to subscribe or

unsubscribe from the list serve, enter their email address, and then click submit. The user will then be sent an email, and they will need to reply to that email before they are added to the list. Anyone is allowed to subscribe himself or herself to the list serve. Please let Garry Goza (gozag@michigan.gov) know if you have any questions or comments on the page.

Other HIV/AIDS Information Available on the Web

The quarterly Michigan HIV/AIDS Statistics, and other HIV/AIDS reports,

statistics and guidelines are available on this site. http://www.michigan.gov/mdch/0.1607.7-132-2944_5320_5331--.00.htm

Adult and Pediatric HIV/AIDS Report Forms and instruction sheets are available on the Web at the following address: <http://www.michigan.gov/mdch/0.1607.7-132--13855.00.htm>

Responding to Concerns Regarding Perceived Cancer Clusters

By: Bob Wahl, D.V.M., M.S.

A cancer cluster is defined as a greater-than-expected number of cancer cases that occurs within a group of people in a geographic area over a specific period. Cancer clusters are often suspected when citizens report that several family members, friends, neighbors, or co-workers have been diagnosed with cancer. Bob Wahl, Division of Environmental and Occupational Epidemiology (DEOE), MDCH is the primary cancer cluster investigator and responds to all calls, letters, and e-mails from concerned citizens who are concerned about cancer clusters. DEOE also works with epidemiologists at local health departments and State of Michigan regional surveillance epidemiologists who also respond to cancer concerns. Ideally, these local public health and regional surveillance epidemiologists initially address cancer concerns from citizens. In an effort to provide support, DEOE is currently developing the State of Michigan protocol for responding to cancer concerns, which should be available in the spring 2004. In addition, DEOE is planning to meet with interested local public health and regional surveillance epidemiologists periodically to discuss cancer clusters and offer information and advice.

The ability to detect statistically significant elevations in specific types of cancer cases is dependent on the rarity of the cancer types and the population size of the geographic area of concern. The larger the population, the more likely it is that elevated numbers of cases will be statistically significant, and occur due to real increases in cancer incidence. Therefore, analyses of specific cancer types for small populations such as zip codes are often difficult to interpret due to small numbers of cancer cases. In addition, these analyses of cancer cases cannot be used to determine associations between disease occurrences and the presence of risk factors such as diet, smoking, or environmental exposures, and cannot be used to determine increased or decreased risk due to certain behaviors or exposures.

A second important component of a potential cancer cluster is the potential environmental contaminants. Many people believe that much of our cancer risk comes from chemicals or other pollutants in our environment including the air we breathe, the food we eat, or the water we drink. Scientists estimate, however, that most of our cancer risk comes from lifestyle factors such as cigarette smoking, heavy alcohol use, and diet. Dietary factors can include high fat diets, and low fiber diets, and excess calorie consumption. Documented exposures of people to low levels of toxic chemicals in the environment have occurred, but the number of cancers associated with that exposure is usually very small. In addition, linking environmental chemical exposures to occurrences of cancer is very difficult due to these effects of family history and lifestyle. Furthermore, there must be a reasonably long period (at least 10 years) between the presumed onset of exposure to a carcinogen and the occurrence of cancer (induction period), because the initiation of cancer occurs many years after the first exposure.

In addition to providing information via phone or email conversations, DEOE also commonly sends fact sheets to concerned citizens including information on cancer and the environment and brain cancer. These fact sheets are available by contacting DEOE. Information on cancer clusters is also available from the Center for Disease Control and Prevention (CDC) at www.cdc.gov/nceh/clusters/default.htm and the National Cancer Institute (NCI) at cis.nci.nih.gov/fact/3_58.htm. Information on specific cancers and cancer in general is available from the National Cancer Institute (NCI) and the American Cancer Society (ACS), which provide information on the whole range of cancer issues, such as causes, risk factors, prevention, detection, symptoms, treatment, clinical trials, and support groups. ACS's information is available at www.cancer.org or by calling 1-800-ACS-2345. NCI's information is available at cancer.net.nci.nih.gov/ or by

calling 1-800-4-CANCER. Information on CDC efforts and programs to control certain cancers (breast, cervical, colorectal, prostate, skin, and ovarian) is available at www.cdc.gov/cancer or by calling 1-888-842-6355.

CDC's National Institute for Occupational Safety and Health (NIOSH) provides information on cancer related to the workplace. Under certain circumstances, NIOSH also responds to requests to evaluate potentially hazardous working conditions from employers, union representatives, or employees. Information on occupational cancer can be found at www.cdc.gov/niosh/occancer.html and information on NIOSH's Health Hazard Evaluations can be found at www.cdc.gov/niosh/hhe.html. Another resource for occupational health information is the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) at www.osha.gov.

Many times, information provided by DEOE, including the above-mentioned fact sheets and web sites, is not sufficient, and concerned citizens often request statistical analyses of cancer in their geographical area. For these requests, DEOE initially provides the following Internet address to the Vital Records and Health Data Development Section (VRHDDS), MDCH web site: <http://www.mdch.state.mi.us/PHA/OSR/Index.asp?Id=1&MainFile=MainVS.htm&BookMark>

VRHDDS produces tables for cancer incidence and mortality for each of the four most common types of cancer and for all cancers combined by county and health district.

Some concerns are not resolved by providing VRHDDS data from the web site. When this occurs, citizens are asked to provide more information about cancer in their geographical area of concern, including information on cancer cases such as the type of cancer and year of diagnosis. If the information

immunization levels in this priority area. As a result of this, and many local efforts, immunization rates in the City of Detroit increased nearly seven percent from 2001 to 2002. Michigan has also increased the number of health care provider practices enrolled in the federal Vaccines for Children program, which provides vaccine to clinics serving eligible children.

Also essential in the success of the Michigan immunization program is the nationally recognized Michigan Childhood Immunization Registry (MCIR), which has been developed and implemented with grass-roots support from all immunization partners. The registry provides physicians with quick access to immunization records and allows them to more effectively follow-up with children who are behind in their immunizations. MCIR has become an effective tool for providers to use in their clinics and communities.

In addition to the positive press Michigan received for its high percentage of fully immunized children, MCIR was also honored. The 4th Annual National Immunization Registry Conference was held in Atlanta on October 28-30th,

and Michigan received two of only three state program awards presented at the conference.

The Protect Award was given to the Michigan Childhood Immunization Registry for its capability to assess and measure immunization levels. MCIR can measure immunization rates at the clinic, county and state levels. MCIR levels have increased by 11 percent statewide since January 2002.

The Grow Award was presented to MCIR for its high public and private provider participation rates. MCIR has 2.8 million children and over 32 million shot records. In 1998, 46 percent of the providers registered submitted data to the registry. In 2002, 77 percent of 2,943 immunization providers submitted data to MCIR.

The CDC awards will be showcased at regional governance board meetings during the next six months. For more information on the success of the Michigan immunization program, visit the National Immunization Survey on the Centers for Disease Control and Prevention website at www.cdc.gov/nip/coverage/default.htm.

Upcoming Conferences

The 13th Annual Information Integration Conference for Public Health will be held March 22 and 23rd at the Kellogg Center in East Lansing. This conference is sponsored by the Michigan Association for Local Public Health (MALPH) and will be entitled “Partnering for Healthy Communities.” Watch for registration materials on the MALPH website sometime in January at www.malph.org.

The Centers for Disease Control and Prevention will be having its 4th National Asthma Conference, entitled “Winning with Asthma.” The conference will be April 14-16 in Atlanta. The conference is intended for physicians, public health professionals, respiratory therapists, internists, emergency medical care providers, managed care directors, state health department asthma staff, nurses/nurse practitioners, community health specialists, and family practitioners. For more information visit the website at <http://www.signup4.net/public/ap.aspx?EID=200414E>.

Epidemiologic Capacity in State and Territorial Health Departments, 2001

By: Rebecca A. Malouin, Ph.D., M.P.H. and Matthew Boulton, M.D., M.P.H.

Healthy People 2010 Objective 23-14 calls for “an increase in the proportion of tribal, state and local public health agencies that provide or assure comprehensive epidemiology services to support essential public health services.” To assess the current epidemiologic workforce, the Council of State and Territorial Epidemiologists (CSTE) conducted a survey of the epidemiological capacity of state and territorial health departments between November 2001 and April 2002. State epidemiologists and/or designated delegates were requested to complete

the assessment. Forty-six out of 56 invited states and territories responded to the survey. The results are intended to identify regional and national trends in epidemiological capacity.

States were asked to assess core epidemiologic capacity in eight program areas including infectious disease, chronic disease, maternal/child health, injury, bioterrorism/emergency management, environmental health, oral health, and occupational health, by using a four-point scale. The scale ranged from “not at all or minimally” to “fully or almost fully”. Figure One displays the national results of the

survey. The majority of the states and territories reported “none or minimal” capacity in occupational and oral health, partial capacity in bioterrorism, chronic disease, environmental health, injury, and maternal and child, and “almost full or full” capacity in infectious disease. Michigan reported partial epidemiologic and surveillance capacity for all program areas except infectious disease and oral health. Michigan reported substantial epidemiologic and surveillance capacity for infectious disease and none or minimal epidemiologic and surveillance capacity for oral health, similar to national trends.

Continued on page 7

Employee Focus- Ann Rafferty

Ann Rafferty began her career with the Michigan Department of Community Health (formerly Michigan Department of Public Health) in 1990. Although her location and placement in the department have changed over time, she has remained a key part of the Michigan Behavioral Risk Factor Surveillance System (BRFSS) staff. In the mid 1990s, the Michigan BRFSS (and Rafferty's position) moved from the Center for Health Promotion into the Bureau of Epidemiology. Currently, BRFSS activities are located in the Chronic Disease Epidemiology Section in the Division of Epidemiology Services. Rafferty's main role as a Public Health Consultant for the Michigan BRFSS includes working on the development of state-added questions, working with the contractor that conducts the telephone interviewing (currently the Office for Survey Research at Michigan State University) to implement the BRFSS protocol, sending data to the CDC, creating the Michigan BRFSS data sets, analyzing the annual data, and writing up results.

Depending on what resources are available for BRFSS work in any given year, Rafferty also spends time on projects of special interest to her. One of her recent analyses focused on walking and bicycling for transportation, which will be published in the American

Journal of Health Promotion. She is especially interested in BRFSS questions relating to nutrition and physical activity. Because of this, she has also collaborated on other surveys, including an osteoporosis and arthritis survey and another on nutrition and physical activity.

Rafferty views her greatest accomplishment as the distribution of Michigan BRFSS data through various scientific publications. Because of this, results from the Michigan BRFSS are available not only to those directly involved in public health in our state, but around the country as well.

Rafferty earned a B.A. in biology from Boston University, and an M.S. in human nutrition and a Ph.D. in nutritional epidemiology, both from Cornell University. While completing those degrees she worked on a nutritional surveillance project in Indonesia and a child nutrition survey in Kenya. Before coming to Michigan, she worked for the W.I.C. program in New York State.

Rafferty lives in Ovid with her husband and dog, Rosebud. Her hobbies include bicycling and gardening. If you would like to find out more information about the Michigan BRFSS, you can go to <http://www.michigan.gov/mdch/0,1607,7-132--12702--,00.html>.

Recent Presentations

Dara Ganoczy, M.P.H., Carla Merritt, M.P.H., and Katie Macomber, M.P.H. of the HIV/STD and Bloodborne Infections Section presented at University of Michigan School of Public Health symposium entitled "Models, Data, and Public Health: STDs in Michigan." The symposium, held on October 24th was sponsored by the Center for Molecular and Clinical Epidemiology of Infectious Disease. The group from MDCH presented on syphilis in Detroit, Quinolone-resistant *Neisseria gonorrhoea*, and behavioral characteristics of those with STDs in Michigan.

Dara Ganoczy, M.P.H. presented on Quinolone-resistant *Neisseria gonorrhoea* at the Michigan Society for Infectious Disease Conference on November 6th at Botsford Hospital in Farmington Hills.

Two MDCH epidemiologists recently presented at the Centers for Disease Control and Prevention National Center for Environmental Health 6th Annual Conference held December 3. **Sarah Lyon-Callo, M.P.H.** presented "Challenges in Asthma Surveillance," and **Susan Bohm, M.S.**, presented "Assessing Asthma Control Using BRFSS Data." Both are in the Chronic Disease Epidemiology Section.

Sarah Lyon-Callo, M.P.H. presented "Asthma in Young Children in Western Michigan" at the Michigan Early Childhood Data Conference. The conference was held December 15 in Grand Rapids.

Save The Date! April 16, 2004

3rd Annual Michigan Epidemiology Conference

The Epidemiology Section of the Michigan Public Health Association will be holding its 3rd annual conference, April 16, 2004, at the Towsley Center on the Medical Campus of the University of Michigan in Ann Arbor.

The conference will include:

- Keynote address: James Hughes,

MD-Director, National Center for Infectious Diseases

- Epidemic Intelligence Service (EIS) presentations
- Breakout sessions
 - infectious disease
 - environmental/occupational injury/illness
 - chronic disease/maternal & child health

- careers in epidemiology - networking opportunity for students

- Poster presentations

If you are interested in submitting an abstract (due by February 23, 2004), please contact Mark Schmidt (schmidtma@michigan.gov) or Tom Largo (largot@michigan.gov). Registration information will be provided at a later date.

Prevalence of Complementary and Alternative Medicine Use in Michigan¹

Ann Rafferty, Ph.D., Harry McGee, M.P.H., and Corinne Miller, D.D.S., Ph.D.

Complementary and alternative medicine (CAM) is a group of medical and health care systems, practices, and products that are not considered to be part of conventional medicine in the United States. Although what is considered to be complementary or alternative may change over time, acupuncture, herbal medicines, massage therapy, Chi Gong, and Reiki are examples of practices that are currently considered to be CAM.

CAM use among adults in the U.S. is prevalent and increasing. In surveys of U.S. adults, Eisenberg and colleagues found that in 1990 33.8% of adults had used one or more CAM therapies during the previous year while in 1997 this prevalence had increased to 42.1%.² Public and scientific interest in CAM is growing in the U.S. as demonstrated by the formation of the National Center for Complementary and Alternative Medicine within the National Institutes of Health (<http://nccam.nih.gov>) and the recommendation by The White House Commission on Complementary and Alternative Medicine that funding for research of CAM practices and products be increased (<http://www.whccamp.hhs.gov/tl.html>).

In order to estimate the prevalence of CAM use among Michigan adults, we added questions on this topic to the 2001 Michigan Behavioral Risk Factor Survey (BRFS), an annual state-based telephone survey that is coordinated by the Centers for Disease Control and Prevention. Respondents to the 2001 Michigan BRFS were asked about their use of 11 specific types or groups of CAM therapies in the previous 12 months. We asked CAM users whether they had discussed their use with their regular medical doctor, the reason for their CAM use, and whether they found it helpful. To account for weighting and complex sampling design, we used SUDAAN software (<http://www.rti.org/sudaan>) to analyze the data.

Our results show that 25.6% of Michigan adults had used one CAM

therapy in the previous 12 months, 12.1% two, 6.1% three, 5.9% four or more, while 50.3% had not used any CAM. The most frequently used therapies were herbal supplements (20.5%), special diets (12.6%), chiropractic therapy (12.2%), and other (nonvitamin, nonherbal) dietary supplements (10.8%). CAM use was higher among women than men overall (53.8% vs. 45.0%) and within most of the specific CAM therapy groups. (See table below.)

Forty-six percent (45.9%) of CAM users had discussed at least some of their CAM use with their regular medical doctor. Among those who had discussed their CAM use, the majority (61.3%) had received a recommendation from their doctor for at least some of the CAM therapies they had used. Approximately one-quarter (24.4%) of all CAM users had used these therapies to treat a disease or condition, 6.8% to prevent a disease or condition, 42.5% to promote their overall health, and the remainder had used CAM for a combination of the above or for some other reason. The majority of CAM users appeared satisfied with these therapies, finding them

helpful (83.2%) or at least some of them helpful (5.8%).

This study represents the first time in Michigan, and to our knowledge in the U.S., that a module of questions related to CAM has been included in a state-level BRFS. We expect the trend of increasing CAM use to continue, especially as more traditional medical care providers become involved. Given its apparent popularity and potential effect on the health of the population, CAM use is an area that should be monitored by the public health community.

- ¹ Results of this study were first published in the American Journal of Public Health. (Rafferty AP, McGee HB, Miller CB, Reyes M. Prevalence of Complementary and Alternative Medicine Use: State-Specific Estimates From the 2001 Behavioral Risk Factor Surveillance System. *Am J Public Health* 2002;92:1598-1600.)
- ² Eisenberg DM, Davis RB, Ettner SL, et al. Trends in alternative medicine use in the United States, 1990-1997. *JAMA*. 1998;28-:1569-1575.

Table: Prevalence of Complementary and Alternative Therapy Use Among Michigan Adults Within the Previous 12 Months, by Sex, Michigan 2001 Behavioral Risk Factor Survey:

Complementary and Alternative Therapies	Percent Total (n=3,764)	Percent Males (n=1,491)	Percent Females (n=2,273)
Herbal Supplements†	20.5	17.5	23.2
Special diets†	12.6	11.2	13.9
Chiropractic therapy	12.2	12.2	12.2
Other dietary supplements†	10.8	8.4	13.0
Manipulative therapies (e.g., massage therapy, osteopathic manipulation) †	10.5	8.8	12.0
Large-dose vitamins or minerals†	8.2	6.3	9.9
Meditation, imagery, hypnosis, or biofeedback	7.2	6.6	7.7
Other mind-body therapies (e.g., Tai Chi, Yoga, Chi Gong)†	5.1	3.1	6.9
Energy therapies (e.g., therapeutic touch, Reiki)†	4.5	3.0	5.8
Homeopathic, naturpathic, or Ayurvedic therapies	3.8	3.3	4.2
Acupuncture†	1.0	0.6	1.3
Other CAM	1.9	1.5	2.3
Any CAM†‡	49.7	45.0	53.8

†Significant difference by sex using chi-square test (p<.05)

‡Reported use of at least 1 CAM therapy in previous 12 months

In addition, states were asked to assess four of the essential public health services related to epidemiology, including ability to monitor health status, diagnose and investigate health problems and health hazards, conduct evaluations, and conduct research. Possible responses included “not at all or minimally”, “partially”, “substantially”, or “fully or almost fully”. “Partial” or “minimal to no” capacity was reported by 24 (54.5%)

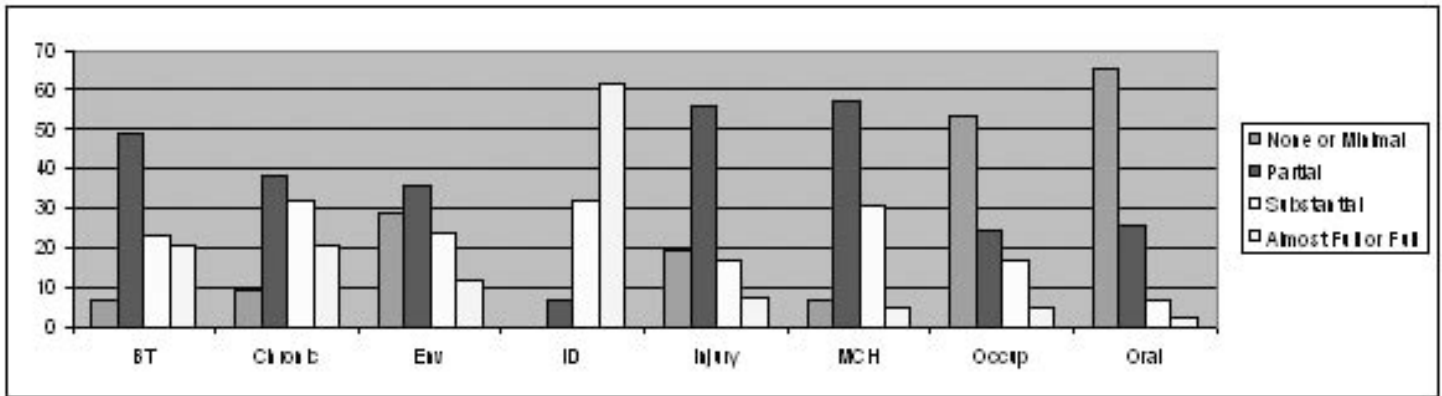
is estimated to be even higher in the upcoming fiscal year. In the Midwest region, including Iowa, Illinois, Indiana, Kansas, Michigan, Missouri, Minnesota, North Dakota, Nebraska, Ohio, South Dakota, and Wisconsin, the average federal funds to support epidemiologic and surveillance activities supported was 58% while the average percentage of state funds for such activities was 42%.

and emerging health problems, health hazards, and outbreaks.”

For more information, please refer to the “Epidemiology Capacity Assessment 2003” at <http://www.cste.org/pdf/files/ecacover1.pdf> or “Assessment of the Epidemiologic Capacity in State and Territorial Health Departments”, Morbidity and Mortality Weekly Report, October 31, 2003, 52(43); 1049-1051.

Figure One: Percent Epidemiologic and Surveillance Capacity by Program Area, United States, 2001

BT=Bioterrorism, Env=Environmental, ID=Infectious Disease, MCH=Maternal and Child Health, Occup=Occupational



respondents in monitoring health status to identify and solve community health problems; 17 (39.5%) in diagnosing and investigating health problems and health hazards in the community; 32 (72.7%) in evaluating effectiveness, accessibility, and quality of personal and population-based services; and 41 (93.2%) in conducting research for new insights and innovative solutions to health problems. Michigan reported partial ability in all of these areas and substantial ability for diagnosing and investigating health problems and health hazards in the community.

In 2001, nationally, federal funds accounted for 61% of state and territorial support for epidemiology and surveillance programs, while state funds accounted for only 36% of such program support. In Michigan during the 2001 fiscal year, federal funds supported 63% of epidemiologic and surveillance activities and state funds supported 37% of such program activities. However in the last fiscal year, federal funds supported nearly 75% of Michigan activities and this percentage

The mean total state (n=26) expenditure for all epidemiology programs was \$8.8 million (range: \$35,518 --\$73 million). The average per capita expenditure for current epidemiological capacity at state and territorial health departments in 2001 was \$2.22, while for Michigan the average per capita expenditure was only \$1.73.

A similar survey conducted by CSTE in 1992 identified 1,700 full-time equivalent epidemiology and surveillance positions, while the current survey identified only 1,400 positions. While variations in methodology may explain a proportion of the difference, the results indicate a lack of growth in the epidemiologic workforce over the past decade. Consequently, the first of seven recommendations resulting from the CSTE report calls for increased epidemiology capacity at state and territory health departments. Specifically the report describes that state and territories “need more highly trained epidemiologists in greater numbers to control and prevent common, endemic diseases as well as to respond to new

“Responding to Concerns...”
continued from page 3

collected suggests a possible problem, or if the citizens identify one or two cancer types that are of most concern in the community, statistical methods and cancer registry data are used to determine whether a greater than expected number of cases of specific cancer types have occurred in a geographical area over a specific period.

Data analyses that demonstrate numbers that are consistently greater than expected for individual cancer types suggest further evaluation may be necessary. In these cases, current scientific literature regarding cancers, environmental science, lifestyle factors, and biostatistics are utilized to try to determine whether a suspected cluster represents a true excess of cancer cases. Decisions regarding additional action steps, such as an environmental assessment or further cancer cluster investigation, are based on these evaluations.

Influenza Update: 2003-04 Season

By: Sally Bidoi, M.P.H.

According to the Centers for Disease Control and Prevention (CDC), surveillance data for the current influenza season have shown that there were early and extensive circulations of influenza in many areas of the United States, setting the stage for a more severe influenza season this winter than in the previous three years. Since the start of this season, the CDC has been reporting the vast majority of specimens testing positive for influenza are viral type A(H3N2). Historically, A(H3N2) viruses have been associated with harsher flu seasons during which higher numbers of influenza-related hospitalizations and deaths have occurred.¹

The Michigan Department of Community Health (MDCH) began observing widespread influenza-like illness across the state in late December, based on reports from sentinel influenza sites, school-based reporting, and laboratory-based surveillance. MDCH conducts enhanced influenza surveillance activities year round, uninterrupted, throughout the state. Currently there are 40 sentinel physician sites established throughout Michigan that provide weekly information on influenza-like illnesses among their patient populations.

Through the end of December 2003, the CDC has antigenically characterized more than 300 influenza A(H3N2) viruses submitted by U.S. laboratories this influenza season. Of these, approximately 75% have been identified as A/Fujian/411/2002-like viruses and the remaining fraction are similar antigenically to the A/Panama/2007/99(H3N2) strain. In Michigan, 3 of 6 early season isolates submitted to the CDC for strain typing were identified as A/Fujian.

The A/Fujian strain is an antigenically drifted variant of the (H3N2) A/

Panama counterpart in this year's influenza vaccine. The A/Fujian strain predominated in Australia and New Zealand during the recently concluded flu season in that hemisphere of the world. While vaccine effectiveness depends in part on the match between vaccine strain and circulating viruses, the current influenza vaccine is still expected to provide some cross-protective immunity against the A/Fujian-like variants. The vaccine is also expected to be important in mitigating the severity of illness.

To view real-time information on influenza activity in Michigan, please visit the Michigan Department of Community Health website at <http://www.michigan.gov/mdch>. This information is updated regularly throughout the flu season. National influenza surveillance summary information for the current week is available at the CDC website <http://www.cdc.gov/flu/weekly>.

Pediatric Enhanced Surveillance Recommendations

During the 2003-04 influenza season, the CDC is requesting that all influenza-associated neurological presentations or deaths among children aged less than 18 years of age be reported to CDC through state health departments. Specifically, health care providers are asked to report the following:

A) In patients less than 18 years old with laboratory-confirmed* influenza infection:

1. Death
- Or
2. Acute encephalopathy (altered mental status or personality change in patient lasting >24 hours and occurring within 5 days of the onset of an acute febrile illness)

- B) In patients less than 18 years of age:
1. Any unexplained death with evidence of an infectious process

Please telephone information to your local health department or to MDCH.

Contact for MDCH: Susan Spieldenner, RN (517) 335-8165 After hours:(517) 335-9030

Information to include:

- Demographic information including name, residence, primary physician
- Clinical summary with history of illness
- Laboratory results, including documentation of influenza virus infection
- Autopsy report if available

In addition, MDCH is coordinating submission of postmortem tissue specimens and influenza viral isolates to CDC for supplemental testing. For further details on case-reporting and specimen collection, please see the MDCH website <http://www.michigan.gov/mdch> and follow the links to the flu page.

* Laboratory-confirmed influenza = positive influenza rapid antigen test OR positive direct or indirect fluorescence assay (DFA/IFA) OR viral culture positive for influenza

¹ Centers for Disease Control and Prevention (CDC) website <http://www.cdc.gov>.

Birth Defects Monitoring, Prevention, and Follow-up in Michigan

By: Jane Simmermon, R.N., M.P.H.

The Michigan Department of Community Health (MDCH) has received cooperative agreement funding from the Centers for Disease Control and Prevention (CDC) since 1999 to enhance the quality of birth defects data collection and to support use of the data for prevention and intervention activities. Increased emphasis on birth defects surveillance and prevention led to creation of a National Center for Birth Defects and Developmental Disabilities (NCBDDD) at the CDC in April 2001. We are grateful to NCBDDD's ongoing support of birth defects monitoring, prevention, and follow-up endeavors here in Michigan.

Birth Defects Monitoring

The Michigan Birth Defects Registry (MBDR) was established by Act 236 of 1988 as a statewide surveillance system to monitor the occurrence of birth defects in children from birth through age two. All Michigan hospitals and cytogenetic laboratories are required by state law to submit data to MDCH on 860 reportable conditions including structural malformations, selected disease processes and genetic disorders. Reporting is supplemented by data from birth and death certificates and from metabolic and hearing screening results. Approximately 8,000 children are added to the MBDR annually. The registry includes demographic data, birth characteristics and diagnostic information on each child along with mortality status and cause of death, if applicable. To date, the registry contains 259,000 reports on 131,000 children received since reporting began in 1992. Cardiac and limb malformations are reported most often. Birth defects affect more than 150,000 infants each year in the United States and are the leading cause of death among children under one year of age. While representing less than eight percent of all children, roughly 30 percent of all Michigan deaths among children 10 years or younger are to children in the registry. Glenn Copeland of the Vital

Records and Health Data Development section oversees the MBDR. To find statistical birth defect data summaries, please visit www.mdch.state.mi.us/pha/osr or contact Copeland (copelandg@michigan.gov) to request data by specific geographic region or other demographic parameters.

Birth Defects Prevention

The MDCH birth defects prevention program includes identifying ways to prevent certain birth defects and educating communities and health care professionals about prevention strategies. Up to 70% of neural tube defects (NTD) such as spina bifida and anencephaly can be prevented by daily folic acid intake of 400 micrograms prior to conception and throughout the first trimester of pregnancy. Despite mandatory fortification of the grain supply (with 140 micrograms folic acid/100 grams of grain product) since 1998 and a national folic acid educational campaign spearheaded by the March of Dimes from 1999-2002, we continue to observe approximately 80 Michigan newborns each year with NTD. The number of NTD-affected pregnancies is even greater and includes those resulting in miscarriage or termination. Other birth defects that may be prevented are caused by poorly controlled maternal illnesses such as diabetes mellitus, maternal infections early in pregnancy such as toxoplasmosis and cytomegalovirus or teratogenic exposures such as alcohol. Staff members collaborate with many partners to address prevention including the March of Dimes, reproductive genetic centers, and the National Birth Defects Prevention Network (NBDPN). Some birth defects prevention activities include: a folic acid educational campaign to be launched in January 2004; disseminating informational materials including a free pamphlet, Preventing Birth Defects Important Information for Michigan Families; and promoting National Birth Defects Prevention Month through mass media each January. If

you are interested in receiving the 2004 Birth Defects Prevention Month packet please contact Val Ewald (ewaldv@michigan.gov). For additional information or to request a folic acid

Continued on page 11

Recent Publications

Montgomery, J.P., Mokotoff, E.D., Gentry, A.C., and J.M. Blair. The Extent of Bisexual Behavior in HIV-infected Men and Implications for Transmission to their Female Sex Partners. *AIDS Care* 2003; 15(6): 829-837.

Malouin, R., Winch, P., Leontsini, E., Simon, D., Ritchie, B., Raha, S., Glass, G., Hayes, N., and B. Schwartz. Longitudinal Evaluation of an Educational Intervention to Prevent Tick Bites in an Area of Endemic Lyme Disease. *American Journal of Epidemiology* 2003; 157(11): 1039.

Boulton, M.L., Malouin, R.A., Hodge, K., Robinson, L. Assessment of the Epidemiologic Capacity in State and Territorial Health Departments—United States, 2001. *Morbidity and Mortality Weekly Report* 2003; 52(43): 1049.

Wilkins, M.J., Bartlett, P.C., Frawley, B., O'Brien, D.J., **Miller, C.E., and M.L. Boulton.** Mycobacterium bovis (Bovine TB) Exposure as a Recreational Risk for Hunter: Results of a Michigan Hunter Survey, 2001. *International Journal of Tuberculosis and Lung Disease*, 2003; 7(10): 1001-1009.

The Vital Records and Health Data Development Section has released its updated reports to include data through 2002. The reports include statistics on pregnancy, natality, infant mortality, and mortality in Michigan through 2002. You can view these reports at: http://www.michigan.gov/mdch/0,1607,7-132-2944_4669---,00.html

Preliminary Summary of Tuberculosis Case Investigation involving a Middle School Teacher in the Thumb of Michigan

By: Gretchen Tenbusch, R.N., M.S.A. *, Gabe Palumbo, M.B.A., M.P.H., and Sue Spieldenner, R.N.

In early October 2003, a 40-year-old middle school teacher in Huron County with a history of contact to an active case of tuberculosis (TB), presented to a primary care physician with complaints of persistent cough and acute onset of hemoptysis. The client was given a tuberculin skin test, which was recorded as a negative reaction. The physician ordered a chest x-ray, which

initial contact investigation revealed an 8.2% latent TB infection (LTBI) rate overall, with a range of 1.5% in the 7th grade class to 22.2% in the 6th grade class who spent the most time with the teacher last year (see chart below). All students who had a positive tuberculin reaction were given chest x-rays. With the exception of the second active case, all chest x-rays were negative for TB

determined that a Headstart class of 18 students who had been housed in the middle school last year would also be tested. Test results for the remainder of the high school students, staff and the Headstart students are found in Table 2

In late November, 2003 the Tuscola County Health Department was notified that one of the teachers with a positive tuberculin skin test, but with an initial negative chest x-ray was diagnosed with presumptive extrapulmonary tuberculosis when a pleural effusion developed. Fluid obtained by thoracentesis revealed no acid-fast bacillus. The teacher was started on a full regimen of anti-TB medication.

Of the 670 people tested throughout the school system, a total 3 active cases of TB disease were diagnosed with 36 individuals testing positive for latent TB infection. In addition to school contacts and immediate family contacts, there were 67 individuals tested who were identified as a close contact to the teacher or the student. Of these individuals, 2 close friends tested positive for LTBI with negative chest x-rays. Both of these individuals were offered preventive therapy. All individuals from the initial and extended contact investigations who tested negative will be retested in January 2004 at 12 weeks post exposure.

* Health Officer for Huron County Health Dept. and Tuscola County Health Dept.

Table 1
Middle School PPD test results October/November 2003

Contact Group	# Skin tested	# of positive PPD tests	% of positive PPD tests	# of active TB
Staff	53	3	5.7%	0
5th grade	52	4	7.7%	0
6th grade**	54	12	22.2%	0
7th grade	65	1	1.5%	0
8th grade	70	7*	10%	1
9th grade	97	5	5.2%	0
Totals	391	32	8.2%	1

*Includes 2nd active case of tuberculosis

**These children were students in the teacher's classroom in the 2002-2003 school year.

revealed a cavitating mass in the left apex. Sputum specimens were ordered and revealed positive acid-fast bacillus. The client was admitted to the hospital in isolation in a negative pressure room and was started on a full regimen of anti-TB medications.

Subsequent meetings were held between parents, school administrators, and health officials from the Huron and Tuscola County Health Departments, as the school system was located in Huron County and the client lives in Tuscola County. At the meetings it was determined that school staff having exposure to the teacher and her 5th grade class and the 6th, 7th, 8th and 9th grade students since they were in the middle school last year, should be tested.

During the initial contact investigation, a second case of active pulmonary tuberculosis was diagnosed in a student. The student was determined to be non-infectious and was started on a full regimen of anti-TB medications. The

disease and all individuals were offered preventive therapy.

School testing results are found in Table 1.

Based on the percentage of positive skin tests it was decided to test the remainder of the high school students since the buildings were physically adjacent and high school students frequently entered the middle school. Additionally, it was

Table 2
High School/Headstart PPD test results October/November 2003

Contact Group	# skin tested	# of positive PPD tests	% of positive PPD tests	# of active TB
Staff	20	1	.05%	0
10th grade	104	0	0%	0
11th grade**	71	1	1.4%	0
12th grade**	72	2*	2.8%	0
HeadStart	12	0	0%	0
Totals	279	4	1.4%	0

**Includes both student aides who worked in the 5th grade teacher's classroom

New Employees

Sandy Enness is the new administrative assistant in the Infectious Disease Epidemiology Section. She previously worked as an MPHI affiliate employee, having been the MPHI Affiliate Coordinator for the past two years. Prior to that, she provided administrative support to the MPHI Executive Director, Board of Directors, and senior MPHI staff. She is completing her Bachelor's degree in General Studies/Organizational Leadership at Siena Heights University and will graduate May 2004. She also holds an Associate of Arts degree in Commercial Art/Advertising.

Uju Nnama, M.S. was recently hired through the Michigan Public Health Institute (MPHI), as an HIV Epidemiologist within the HIV/STD and Bloodborne Infections Section located in the Lansing office. She received her undergraduate degree in microbiology from Michigan State University in 2001, as well as her masters in epidemiology in 2003. She has an interest in HIV prevention and control as well as maternal and child health, and underserved populations.

Carol Davis is a new contract employee with Southeastern Michigan Health Association working as the Asthma Contracts Administrator in the Epidemiology Services Division. Davis studied Business Administration and Fine Arts in college. She has 34 years of experience working for state government, in areas including Mental Health, Community Health, the Federal Block Grant program, the WIC Program, and finally in the Director's Office at MDCH.

Shannell McGoy, M.P.H. is the new SHAS Project Coordinator in the HIV/STD and Bloodborne Infections Section. McGoy attended Spelman College and has a M.P.H. in Community Health Sciences from the University of Illinois at Chicago School of Public Health. Previously, she worked at the California Department of Health Services in the Occupational Health Branch and at the Illinois Department of Public Health conducting HIV/AIDS counseling and testing. She will be located in the Detroit office.

Erik Foster, M.S. has recently joined the Infectious Disease Epidemiology Section as a Zoonotic/Vectorborne Biologist. Foster has an undergraduate degree in entomology from Michigan State University and a master's degree in Medical/Veterinary Entomology also from Michigan State University. While at MSU he focused on vector-borne and zoonotic disease, laboratory analysis, and ecological field studies.

Erin Crandell, M.P.H. is the new respiratory epidemiologist in the Infectious Disease Epidemiology Section. Crandell has a B.S. from Michigan State University, and a M.P.H. from the University of Michigan. Previously, she worked at the Newborn Screening lab at MDCH, the National Legal Laboratories in East Lansing, and the Center for Human Genetics in Boston, MA.

Marcy Thelen is an administrative support staff member in the Michigan Childhood Immunization Registry and the Immunization Assessment (AFIX) programs. Marcy is a temporary staff member and will be working in the Immunization Program through September 30, 2004.

"Birth Defects Monitoring..." continued from page 9

in-service contact Nelda Mercer, MS, RD (mercern5@michigan.gov), the Folic Acid Community Outreach Coordinator.

Birth Defects Follow-up

Follow-up activities include identifying the special needs of children with birth defects, and working to ensure that families are connected with available resources and support systems. Providing information to families in

a timely manner while preserving the privacy of birth defects data is a top priority. A study has been conducted in selected Michigan hospitals to help identify the most useful and sensitive approach to follow-up based on gaps in existing referral systems. The program maintains a genetic support group directory and distributes a pamphlet, Resources for Families of Infants and Toddlers with Special Health Needs at

no cost to hospitals, health professionals, and families. Follow-up on infants with NTD is planned beginning in 2004 and a parent handbook is under development. Jane Simmermon, R.N., M.P.H. serves as Birth Defects Follow-up Coordinator and is available to assist families in finding information or services. For more information please call (866) 852-1247 or e-mail BDRFollowup@michigan.gov.

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