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Excerpts from the 2000 Annual Reports

Summary of Occupational Disease Reports

Since 1978, physicians, hospitals, clinics, other health professionals and employers have been required by the Michigan Public Health Code (Article 368, Part 56, P.A. 1978, as amended) to report known or suspected cases of occupational disease (for ways of reporting, see back panel). Following the 1988 implementation of the Sentinel Event Notification System for Occupational Risks (Project SENSOR), a statewide initiative for occupational disease surveillance, active solicitation of occupational disease (OD) reports began. Since 1988, the number of reports sent to the MDPH/MDCIS has increased substantially. Figure 1 shows the number of occupational disease reports received each year since 1985. Over the past five years approximately 20,000 reports have been received annually.

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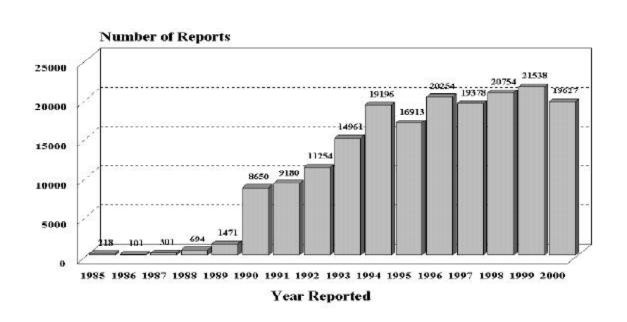
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Figure 1. Occupational Disease Reports to the Michigan Department of Consumer and Industry Services, 1985-2000



Blood Lead Levels Among Adults in Michigan

In its third year of operation the surveillance system for lead proved successful in continuing to identify large numbers of adults with elevated lead levels and sources of exposure that could be remediated to reduce exposures. We are encouraged both by the increased compliance of the reporting law as evidenced by the increased number of laboratory reports and by the reduction in blood lead levels greater than or equal to 25 ug/dL (Figure 2). We will continue to monitor for this trend in the year 2001.

National Estimates of Silicosis

From 1987 to 1996, 2,787 deaths occurred in the United States where silicosis was mentioned on the death certificate. During the same period in Michigan, 77% of death certificates with a mention of silicosis were confirmed as silicosis-related deaths. The ratio of the total number of confirmed silicosis cases in Michigan from 1987-1996 to the number confirmed deceased silicosis cases was 7.46. Using the proportion of confirmed deaths and the ratio of the total number of confirmed Michigan cases to confirmed deceased cases, we estimated there would have been 1,607 confirmed cases of silicosis identified per year in the United States if there had been a national surveillance system. Table 1 summarizes the calculations. Using capture-recapture analysis which estimated that the Michigan surveillance system missed 74% of newly diagnosed cases of silicosis, we estimated there are 6,251 newly diagnosed cases of silicosis per year in the United States. This contrasts with the official statistics from the Bureau of U.S. Labor Statistics of 3,500 newly diagnosed cases for <u>all</u> dust related diseases including asbestosis and coal workers' pneumoconiosis.

Occupational Noise-Induced Hearing Loss in Michigan

Table 2 shows the decade in which cases most recently worked, and whether they were provided with hearing protection (plugs or muffs) by industry type. Over time, the percentage of workers who were provided hearing protection increased in all industries. The percentage of manufacturing workers given hearing protection improved the most of any industry type, with only 8% of workers given hearing protection in the 1940's and 92% of workers given hearing protection in the 1990's. Workers in agriculture had the lowest percentage provided with hearing protection.

Work-Related Asthma in Michigan

One thousand three hundred twenty-six of the patients identified with work-related asthma had persistence of their asthma symptoms (Table 3). This was true for 442 of 464 (95.3%) of those still exposed as well as 884 of 1,057 (83.6%) no longer exposed to the substance causing their asthma. Among those no longer exposed, 50.0% stated their symptoms were less severe compared to 33.2% among those still exposed who reported their symptoms were less severe. Similarly, 84.5% of those still exposed were continuing to take asthma medications while 76.6% of those no longer exposed were still taking asthma medications. Among those no longer exposed, 29.9% states they were taking fewer medications while only 21.1% of those still exposed were taking fewer medications.

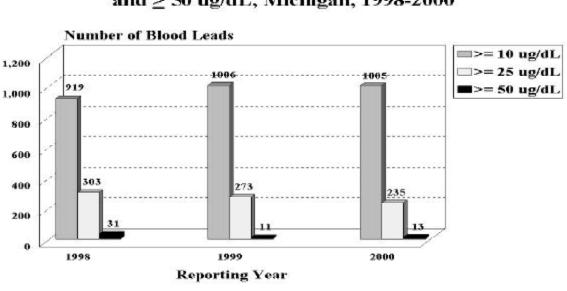


Figure 2. Number of Blood Levels \geq 10 ug/dL, \geq 25 ug/dL and \geq 50 ug/dL, Michigan, 1998-2000

Number of Death Certificates which Mentioned Silicosis		
in the United States, 1987-1996		2,787
Multiply by Proportion of Confirmed Silicosis-Related		
Deaths in Michigan, 1987-1996	X	0.7727
Estimated Number of Confirmed Silicosis-Related Deaths		
In the United States, 1987-1996		2,154
Multiply by Ration of Number of Living and Deceased Silicosis		
Cases to Those Deceased in Michigan, 1987-1996	X	7.46
Estimate of Number of Silicosis Cases in the Unites States		
That Would Have Been Reported in 1987-1996 if There		
had Been National Surveillance		16,069
Multiply by the Ration of Estimated Total Number of Silicosis Cases		
to Those Actually Reported to the Surveillance System		
in Michigan, 1987-1996	X	3.89

Table 2. Decade Last Worked and Status of Hearing Protection Availability at Most Recent Company Exposed to Noise, by Industry Type, Michigan 1992-2000

	Decade Last Exposed to Noise and Percent with No Hearing Protection							
	1940's	1950's	1960's	1970's	1980's	1990's	2000	
	%	%	%	%	%	%	%	
	Have	Have	Have	Have	Have	Have	Have	
	<u>HPD*</u>	<u>HPD</u>	<u>HPD</u>	<u>HPD</u>	<u>HPD</u>	<u>HPD</u>	<u>HPD</u>	
Agriculture/Forestry			0	33	0	37	50	
Construction		50	33	30	33	67	65	
Manufacturing	8	10	11	45	67	86	92	
Services		0	50	0	14	69	65	
Public Administration		50	0	40	82	69	93	

^{*}Hearing Protection Device (ear plugs or muffs).

Table 3. Persistence of Symptoms and Medication Use in Confirmed Work-Related Asthma Patients: 1988-2000

		Symp	toms	Asthma Medications		
Exposure Status	<u>Total</u> *	Yes	<u>Less</u>	Yes	Less	
Still Exposed	464	442 (95.3)	154 (33.2)	392 (84.5)	98 (21.1)	
No Longer Exposed	1,057	884 (83.6)	528 (50.0)	810 (76.6)	316 (29.9)	
Total	1,521	1,326	682	1,202	414	

^{*}Total number of cases: 1,521. Information missing on 117 individuals. Number of patients, percentages are in parentheses.

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Division of Occupational Medicine

(517)353-1955 MSU-CHM 117 West Fee Hall East Lansing, MI 48824-1316

Project SENSOR Staff

At the Michigan Department of Consumer and Industry Services

Douglas J. Kalinowski, C.I.H., M.S.,
Deputy Director
Bureau of Safety and Regulations
Project SENSOR, Co-Director
Bill Deliefde, M.P.H.
Regional Supervisor
Project SENSOR-MDCIS Liaison
John Peck, C. I. H., M.S., Chief
Occupational Health Division
Debbie Wood
Division Chief Secretary

At Michigan State University - College of Human Medicine

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Project SENSOR NIHL Coordinator
PS News, Editor
Project SENSOR Office Staff:
Ruth VanderWaals
Tracy Murphy
Patient Interviewers:
Amy Krizek

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FAX (517) 432-3606
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Web www.chm.msu.edu/oem
Mail Michigan Department of Consumer
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Division of Occupational Health
P.O. Box 30649
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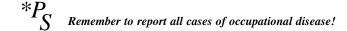
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Michigan State University College of Human Medicine 117 West Fee Hall East Lansing, MI 48824-1316 Phone (517) 353-1955

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