

Excerpts from the 2002 Annual Reports

Elevated Blood Lead Levels in Michigan

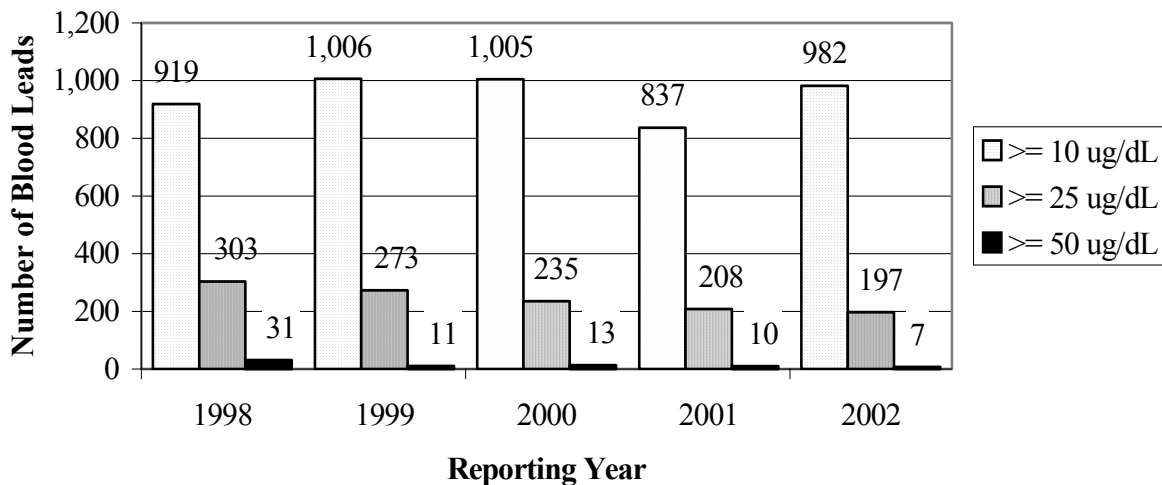
Since the initiation of laboratory reporting for blood lead in 1998, there has been a downward trend in the number of individuals with blood leads greater than or equal to 25 µg/dl (303 to 197) and the number of individuals with blood leads greater than or equal to 50 µg/dl (31 to 7). The number of individuals with blood leads greater than or equal to 10 µg/dl has not shown a similar decrease. (Figure 1)

Now available
 the 2002 Annual Reports:
Work-Related Asthma *Elevated Blood Lead Levels*
Noise-Induced Hearing Loss *Occupational Diseases*
Silicosis

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Figure 1. Number of Adult Blood Lead Levels Reported, Michigan: 1998-2002



Silicosis in Michigan

The U.S. surveillance system for counting occupational injuries and illnesses is based on employer reporting. It is known to undercount work-related conditions, particularly chronic diseases. We used a readily available national administrative data base (death certificates) and the Michigan surveillance system to calculate national estimates for silicosis. Our estimate for silicosis (3600-7300 cases per year) is appreciably larger than the employer based reporting system which estimated 2700-3600 cases per year for all types of pneumoconiosis, not just silicosis. (Table 1)

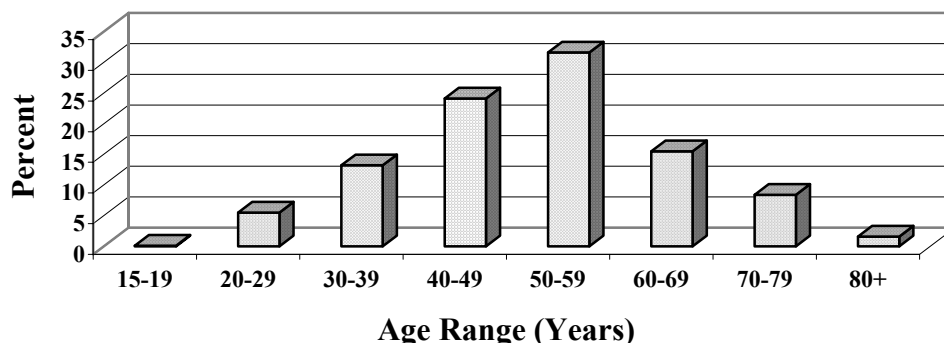
Table 1. Summary of Calculations Used to Estimate the Total Number of Newly Diagnosed Cases of Silicosis in the United States, 1987-1996

Number of death certificates which mentioned silicosis in the United States, 1987-1996	2787
Multiply by proportion of death certificates where silicosis was mentioned and where diagnosis was confirmed in Michigan, 1987-1996	X <u>0.7727</u>
Estimated number of confirmed silicosis deaths in the United States, 1987-1996	2154
Multiply by the ratio of the number of living and deceased confirmed silicosis cases in Michigan, 1987-1996	X <u>6.44</u>
Estimate of number of silicosis cases in the United States that would have been reported in 1987-1996 if there had been national surveillance system for silicosis similar to the one in Michigan	13,872
Multiply by the ratio of the estimated total number of silicosis cases (includes cases missed by the surveillance system) to those actually reported to the surveillance system in Michigan, 1987-1996	X <u>2.45-5.12</u>
Estimate of the total number of newly diagnosed cases of silicosis in the United States, 1987-1996	36,140-73,179
Estimate of the total number of newly diagnosed cases of silicosis in the United States per year	Divided by 10 3,614-7,318

Work-Related Noise-Induced Hearing Loss

Most of the reports of work-related hearing loss are for men (~90%). As can be seen in Figure 2, hearing loss is being reported among all ages and is not just effecting the elderly. Seventy-five percent of the reports are occurring in individuals under the age of 60.

Figure 2. All Individuals Reported with Noise-Induced Hearing Loss in 2002 by Age Range



Work-Related Asthma in Michigan

Isocyanates are the most common cause of work-related asthma in Michigan. The U.S. EPA requires manufacturing companies with 10 or more employees to report if they use 10,000 or more pounds of isocyanates a year. We used this reporting system and the number of individuals who work at these facilities to estimate the potential number of Michigan citizens with exposure to isocyanates. Limitations to our estimate are the inclusion of all workers at the facility which would over-estimate who is actually exposed and the exclusion of non-manufacturing employers which would underestimate the common use of isocyanates in non-manufacturing facilities such as construction, body shops, and foam packing. The actual table in the Annual Report also lists the names of the manufacturing companies using isocyanates by county. (Table 2)

Table 2. Estimate of Michigan Workers Exposed to Isocyanates by County, in Calendar Year 2000			
County	# Workers Potentially Exposed to Isocyanates in County	Total # Workers in County	% Workers Potentially Exposed to Isocyanates in County
Allegan, Kent, Muskegon, Ottawa	11,349	590,600	2
Barry	1,040	13,550	8
Bay, Saginaw, Midland	7,405	183,100	4
Berrien	2,800	73,900	4
Branch	25	15,375	<1
Calhoun, Kalamazoo, Van Buren	1,353	218,100	1
Cass	600	11,625	5
Charlevoix	500	11,475	<1
Clare	300	8,350	4
Dickinson	720	14,750	5
Eaton, Clinton, Ingham	430	239,900	<1
Genesee	500	170,700	<1
Hillsdale	200	17,125	1
Isabella	850	29,575	3
Jackson	729	64,000	1
Kalakaska, Benzie, Grand Traverse, Leelanau	499	63,125	1
Lapeer, Macomb, Monroe, Oakland, St. Clair, Wayne	14,236	2,182,000	1
Lenawee, Livingston, Washtenaw	5,780	285,800	2
Mason	300	11,275	3
Mecosta	999	13,975	7
Montcalm	2,110	20,425	10
Ogemaw	200	6,700	3
Sanilac	150	13,600	1
Shiawassee	140	21,300	1
Upper Peninsula	760	133,500	1
Wexford, Missaukee	1,080	19,525	6
TOTAL	55,055	4,604,000	1

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In this issue:
Excerpts from the 2002 Annuals Reports

***PS** Remember to report all cases of occupational disease!

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**Michigan Law Requires
the Reporting of
Known or Suspected
Occupational Diseases**
Reporting can be done by:
FAX (517) 432-3606
Telephone 1-800-446-7805
E-Mail ODRREPORT@ht.msu.edu
Web www.chm.msu.edu/oem
Mail Michigan Department of
Consumer and Industry Services
Occupational Health Division
P.O. Box 30649
Lansing, MI 48909-8149
Reporting forms can be obtained by
calling (517) 322-1608
Or
1-800-446-7805

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