*Project S.E.N.S.O.R.*

Volume 10, No. 3  
Summer 1999

**Highlights from the 1998 Annual Reports on Occupational Diseases in Michigan**

Five annual reports were released this Spring: Occupational Noise-Induced Hearing Loss; Silicosis; Work-Related Asthma; Occupational Diseases; and Elevated Blood Lead Levels Among Adults. This is the first year a report on blood lead has been written. This last report is based on new laboratory reporting regulations for blood lead that went into effect 10-11-97. This edition of the Project SENSOR Newsletter contains a summary and selected tables from the reports. If you would like a copy of any of these reports, please visit our web site at: http://www.chm.msu.edu/oem/index.htm. Instructions on how to access the reports can be found at the web site. If you prefer, you may call us at 1-800-446-7805 to request a printed copy of any of the reports.

**SILICOSIS IN MICHIGAN**

The age-adjusted death rate for silicosis in the Muskegon area is in the top 10% of mortality rates for silicosis in the United States.

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**Silicosis: Age-Adjusted Death Rates by Health Service Area; U.S. Residents 15 Years of Age and Older, 1982-1993**

(See figure on page 6 of this document)

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WORK-RELATED ASTHMA IN MICHIGAN

The likelihood of having persistence of asthma symptoms or needing to take asthma medications increases with increasing duration of exposure before symptoms began and with duration of exposure after initial onset of symptoms. Prompt removal of a patient from exposure after objective documentation of the relationship between work and asthma with pulmonary function tests increases the likelihood that a patient's asthma will improve and the need for medication will decrease over time.


<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Asthma Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Average Exposure</td>
<td>Yes</td>
</tr>
<tr>
<td>Before Symptoms (years)</td>
<td>4.4</td>
</tr>
<tr>
<td>After Onset of Symptoms (years)</td>
<td>3.7</td>
</tr>
</tbody>
</table>

### OCCUPATIONAL DISEASES IN MICHIGAN

The total number of occupational disease reports since 1994 has remained approximately 20,000 per year. However, the number and proportion of reports received from private practitioners has increased. Since only approximately 2% of physicians in private practice submit at least one report a year, we assume there are many additional unrecognized and unreported cases of occupational diseases occurring.

Project SENSOR continues to conduct outreach to Michigan physicians and health care providers in an effort to increase awareness about the state's reporting law, and to update health professionals about the types of occupational diseases occurring in Michigan. Continued vigilance among Michigan's health professionals is needed in order to help ensure that Michigan workers do not get sick from their jobs.

### OCCUPATIONAL NOISE-INDUCED HEARING LOSS IN MICHIGAN

The table below shows the decade when the interviewed patients with fixed hearing loss were most recently exposed to noise by industry. The percentage of individuals at companies with no hearing tests decreased over time and within the industry types that have been required by OSHA since 1972 to provide such hearing tests. Construction and agriculture had the highest percentage of workers with no regular hearing tests; these industries are not required by MIOSHA or OSHA to provide regular hearing tests.

### Decade Last Worked and Status of Regular Hearing Testing at Most Recent Company where Patients with a Fixed Loss were Exposed to Noise, by Industry: Michigan 1992-1998

<table>
<thead>
<tr>
<th>Decade Last Exposed to Noise and % No Regular Hearing Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>Agriculture</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Manufacturing</td>
</tr>
<tr>
<td>Transportation</td>
</tr>
<tr>
<td>Service</td>
</tr>
<tr>
<td>Public Admin.</td>
</tr>
</tbody>
</table>

### Occupational Disease Reports by Reporting Source: Non-Company Health Professionals and Company Medical Departments 1991-1998

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Company</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>1,421</td>
<td>16</td>
</tr>
<tr>
<td>1992</td>
<td>1,327</td>
<td>12</td>
</tr>
<tr>
<td>1993</td>
<td>1,424</td>
<td>10</td>
</tr>
<tr>
<td>1994</td>
<td>1,812</td>
<td>9</td>
</tr>
<tr>
<td>1995</td>
<td>2,202</td>
<td>13</td>
</tr>
<tr>
<td>1996</td>
<td>2,067</td>
<td>10</td>
</tr>
<tr>
<td>1997</td>
<td>3,128</td>
<td>16</td>
</tr>
<tr>
<td>1998</td>
<td>5,221</td>
<td>25</td>
</tr>
</tbody>
</table>
ELEVATED LEAD LEVELS AMONG ADULTS IN MICHIGAN

In the first year of laboratory reporting, 6,934 reports of elevated lead levels were received on 6,373 adults. Nine hundred nineteen adults (14.4%) had evidence of increased lead absorption (blood lead level $\geq$ 10 ug/dL; 303 of 919 $\geq$ 25 ug/dL; and 31 of 303 $\geq$ 50 ug/dL). The predominant source of exposure was occupational in origin, occurring among workers casting brass/bronze parts, or among abrasive blasters removing paint from outdoor metal structures, or among workers repairing car radiators. The two figures below show the counties with the highest incidence rates of elevated lead levels, for men and women separately. Overall, the average annual incidence rate of lead levels greater than or equal to 10 ug/dL among women was 2 per 100,000 women; for men, the average annual incidence was 24 per 100,000.

Ongoing surveillance of lead poisoning in Michigan is seeking to identify workers with elevated lead levels in order to reduce exposures to lead in the workplace.

(See figures on pages 7 & 8 of this document)
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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 Rosenman@pilot.msu.edu
*Mail Michigan Department of Consumer and Industry Services
  Division of Occupational Health
  P.O. Box 30649
  Lansing, MI 48909-8149

Reporting forms can be obtained by calling (517) 322-5208 or 1-800-446-7805.
Project E.N.S.O.R. News

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Address service requested.

In this issue: Highlights from the 1998 Annual Reports on Occupational Diseases in Michigan

*PS Remember to report all cases of occupational disease!

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Figure 10. Silicosis: Age-Adjusted Death Rates by Health Service Area; U.S. Residents 15 Years of Age and Older, 1982-1993

Annual Incidence of Blood Lead Levels (BLLs) 
≥10 ug/dL Among Men in Michigan
by County of Residence: 1998*

OVERALL RATE FOR MICHIGAN
MEN:
24 per 100,000

Total Reports of Men: 827
Gender was unknown for 4 adults
County was unknown for 12 male adults

*Rate per 100,000 men age 16+; denominator is the 1990 US. Census population data.
Annual Incidence of Blood Lead Levels (BLLs) 
≥10 ug/dL Among Women in Michigan 
by County of Residence: 1998*

OVERALL RATE FOR MICHIGAN WOMEN: 2 per 100,000

*Rate per 100,000 women age 16+; denominator is the 1990 US. Census population data.