

disease. In addition to monitoring trends, these reports, as with communicable disease, can be used to initiate public health investigations. Data will be presented on the workplace investigations of 300 patients with silicosis and 100 patients with asthma. The outcome of workplace investigations initiated by disease surveillance will be compared with investigations initiated by employee generated complaints.

Although it is not financially or legally feasible to include routine workplace followup as minimum activity at a State Health Department, it is important to show whether or not routine followup of an occupational disease report is useful. The data that will be presented on the efficacy of workplace investigations comes from OSHA inspections conducted by the Michigan Department of Public Health. Since referrals to OSHA are an important referral pattern used by State Health Departments, the results that will be presented are potentially generalizable to other states.

### **Tuberculosis: An Occupational Health Hazard in Prison Workers**

*Sarah Royce, California Occupational Health Program, California Department of Health Services, Berkeley, CA*

Inmates in the California Department of Corrections have an adjusted TB incidence rate three times greater than that of the California population, due at least in part to intramural transmission. Two additional factors make TB a serious occupational health risk for prison workers: the HIV epidemic and multi-drug resistant TB.

A Cal/OSHA inspection of a state prison has helped focus public attention on CA's 100,000 inmates as a reservoir of TB for the community at large. COHP is providing medical/epidemiologic consultation to Cal/OSHA on the investigation of TB transmission to prison workers.

Minimizing the TB risk to workers requires controlling the epidemic in inmates. Therefore, COHP recommendations include TB skin testing of all inmates and employees who share air with inmates. Other proposed strategies are developing outreach plans and facility licensing/accreditation policies that address the occupational risk of TB, surveillance mechanisms to assess TB risk in other worksites, and an OSHA airborne infectious disease standard.

### **Targeting Health Promotion Using Occupationally Coded Mortality Data**

*Carol Hogfoss Rubin, C. A. Burnett, W. Halperin, P. Seligman, CDC, NIOSH, Cincinnati, OH*

Twenty-three states have contributed to an occupationally coded mortality data set. We evaluated this data in terms of its utility in identifying groups of workers who are at greater risk of nonoccupational diseases and therefore may benefit from targeted prevention. 2.9 million occupationally coded death certificates collected between 1979 and 1987 were used to calculate Proportionate Mortality Ratios (PMRs) for a series of preventable diseases. Ten causes of

preventable death e.g., breast cancer, cervical cancer and ischemic heart disease, were analyzed and groups of workers with elevated PMRs described. Each disease exhibited a distinctive pattern of variation by occupational grouping. For example, there is an elevated risk of breast cancer among teachers (PMR = 164), whereas this group exhibits a low risk of cervical cancer (PMR = 76). We conclude that prevention of disease in the workplace must have occupationally induced illness as its primary focus but should also use occupation to target and reach populations that will benefit from disease prevention programs.

### **Closing the Loop: How Surveillance and Intervention Activities Complement Each Other in Occupational Disease Prevention and Control**

*Linda Rudolph, N. Maizlish, K. Dervin, California Occupational Health Program, CDHS, Berkeley, CA; J. Bellows, California Public Health Foundation, Berkeley, CA*

This paper reviews California occupational disease surveillance programs (lead poisoning, pesticide illness, carpal tunnel syndrome), and discusses the interactions between surveillance and intervention activities. For example, a survey of lead-using employers indicated that only a tiny fraction of lead-exposed workers were receiving blood-lead monitoring. On-site evaluations in fifty lead-using companies in Los Angeles County verified wide variations among different industries with regard to lead poisoning prevention practices. A laboratory-based lead registry showed very few case reports from industries with low prevalences of blood-lead monitoring. A multi-faceted program designed to reduce lead poisoning in the radiator repair industry focused initially on efforts to ensure blood lead screening in radiator repair workers, to make this industry accessible to the existing surveillance system. Registry case reports for radiator workers increased about eight-fold in one-year period.

### **Parental Occupational Lead Exposure and Childhood Blood Lead Levels**

*Laurel C. Schulze, J. L. Pichette, J. D. Brender, Texas Department of Health, Austin, TX; C. M. Johnson, Southwest Texas State University, San Marcos, TX*

Numerous studies have documented that children of lead workers are at increased risk of secondary exposure to lead. Blood lead levels as low as 10-15 micrograms per deciliter of whole blood have been associated with neurobehavioral deficits in young children and fetuses. Studies of lead workers and their children have found a large number of cases where the children have blood lead levels above 30 mcg/dl. This study examined whether there was a relationship between blood lead levels for workers and their children from the battery manufacturing and battery recycling industries in Texas. Data analysis was limited to 229 workers and household members who met the case definition of the study. Although no correlation was found between the worker's blood lead levels and that of their children, 30% of the children tested had blood lead levels 15 mcg/dl or greater. A statistically significant difference was noted when comparing children's mean blood lead levels by type of industry. Children, whose parents worked in battery recycling, had a mean lead level of 21.5 mcg/dl compared to mean lead levels of 9.9 and 12 mcg/dl among children whose parents who worked in battery manufacturing. A significant



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## Conference Abstracts

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