

LEAD EXPOSURES AMONG WELDERS AT A CONSTRUCTION SITE

Hales TR, McCammon C, Daniels W, Lee S. A cross-sectional study of lead exposures and health effects was conducted among 17 lead welders at a Utah construction site. Airborne exposure to lead was assessed during each of the employee's three job tasks (grinding, tinning, bonding). Surface contamination was assessed in the workers' break room, on their clothing, and in their automobiles. Health effects were assessed by symptoms questionnaires, physical examinations, and blood lead levels (BLL). Mean personal-breathing-zone (PBZ) lead levels for the grinding, tinning, and bonding tasks were 32, 287, and 260 $\mu\text{g}/\text{m}^3$, respectively. The OSHA Permissible Exposure Limit (PEL) for airborne lead is 50 $\mu\text{g}/\text{m}^3$. Wipe samples revealed low levels of lead contamination in the break room ($<1 \mu\text{g}/\text{cm}^2$), with slightly higher levels on workers' non-work clothing and automobiles (both $<5 \mu\text{g}/\text{cm}^2$). All 17 lead welders were white men with a mean age and seniority of 38 and 15 years, respectively. None of the employees reported symptoms of lead poisoning or had lead lines on their gums. The mean BLL (36 $\mu\text{g}/\text{dl}$) was markedly elevated compared to the levels for the general population ($<5 \mu\text{g}/\text{dl}$). Four of the 17 (24%) had BLL $>50 \mu\text{g}/\text{dl}$ levels potentially requiring medical removal under the OSHA lead standard. Within one month of this survey, the company: 1) initiated additional engineering controls, 2) reassigned employees with BLL $>50 \mu\text{g}/\text{dl}$ to tasks not involving lead exposure, 3) enhanced the respirator program, and 4) provided additional hygiene measures (e.g., lockers, shower facilities, etc.).

EVALUATION OF AN INTERVENTION MODEL TO REDUCE LEAD POISONING AMONG PAINTERS

D. Harrington, B. Materna, P. Scholz, S. Payne, K. Hopkins, G. Lomas, E. Merideth, P. Coyle, C. Uratsu, L. Soluaga, M. Smith, M. Edgerly, N. Williams, A. Osorio.
Occupational Lead Poisoning Prevention Program, California Department of Health Services

Painters who prepare surfaces for repainting may be exposed to significant amounts of lead dust or fume. Lead contamination may also spread to workers' household members, or contaminate building occupants. However, little evidence is available on work practices and the extent of lead poisoning in this industry, due to the absence, until recently, of an OSHA lead in construction standard. The California Painters Project is a two-year effort that is: assessing the risk for lead poisoning among painters who disturb lead paint; implementing and evaluating a lead poisoning intervention strategy with this population; generating information on resources required; and assessing the applicability of this model to other state and local health departments. We will report on Project activities with 21 painting contractors and their 130 employees beginning with June 1994 baseline interviews and blood lead and ZPP tests, five months of intervention activities ending in November 1994 with interviews and blood tests, and concluding in the summer of 1995, with evaluation of the impact of the intervention. Intervention activities will be described including: the use of a step-by-step painting contractors guide on how to set up an effective lead safety program, employer trainings, utilizing peer educators, worker health and safety trainings, and incentives to motivate changes in the workplace. Results that will be reported on include: trends in blood lead levels from baseline to post-intervention; how well employers succeeded in establishing a comprehensive lead safety program; the relationship between employees' blood lead levels and estimated exposure; and stability of the changes and generalizability of the findings.

OCCUPATIONAL LEAD POISONING AT GENERAL INDUSTRY SITES WITH AIR LEAD LEVELS BELOW THE "ACTION LEVEL"

Paul J. Papanek, Jr., MD MPH

In 1992-93 we conducted outreach to 121 lead-using industries, including ceramics manufacturers, indoor gun shooting ranges, battery manufacturers, manufacturers of brass and other lead containing metal alloys. At 88 facilities, we drew blood for, or arranged for, blood lead (PbB) testing on 1,384 workers not recently tested. Of these workers, 16 individuals from 8 different facilities had PbB levels over 60 mcg/dl ; fewer than 31% of the job areas for these workers had an air lead measurement above the "Action Level." Similarly, 64 workers from 28 facilities had PbB levels from 40 to 59 mcg/dl ; 36% of the job areas for these workers had an air lead measurement above the "Action Level."

This study, one of the largest series of occupational lead poisoning cases ever reported, demonstrates substantial flaws in the OSHA Lead Standard for General Industry. We recommend that the Standard should be changed to require universal PbB testing for lead-exposed workers, and should require that compliance be triggered on the results of blood lead as well as air lead measurements.

INTEGRATION OF SCHOLARSHIP AND PRACTICE: A PhD IN PUBLIC HEALTH?

Patricia Shane, MPH (DrPH); Kim Judson, MPA (DrPH)

This presentation describes [in case study form] the process behind development of a proposal to rename the "Doctor of Public Health" (DrPH) degree to a "Doctor of Philosophy in Public Health" (Ph.D.) at the School of Public Health, University of California Berkeley. Concerns about the current and future status of the DrPH degree are not unique to the UC Berkeley School of Public Health. Although 16 of 27 Schools nationwide continue to offer the DrPH, the status of the degree is currently under review by the Association of Schools of Public Health. The DrPH program at UC Berkeley is highly equivalent in quality and content to the Ph.D. in its academic and scholarly requirements, and surveys of graduates from both degree programs report similar career outcomes. Schools which have made an effort to offer two "tiers" of doctoral education in public health—scholarship and practice—struggle to maintain a distinction.

The DrPH degree was established over 70 years ago for the explicit purpose of providing an advanced "practice" degree for public health officers who held MD degrees. The nature of the profession, the field of public health and its knowledge base have changed significantly since that time. Renaming the DrPH to the Ph.D. in Public Health will more accurately reflect the career objectives of its candidates, eliminate the stigma of "second class" status and act as an impetus for further integration, synthesis and refinement of core public health knowledge. This case study speaks to the importance of linking theory with practice, and raises important questions about the nature and definition of public health and the integration of scholarship and practice. The historical context and future implications will be discussed.

Curriculum Planning: An Outcomes Approach

Haroutine K. Armenian, Michael E. Thompson

Electives constitute approximately 50% of the Master of Public Health Program curriculum at Johns Hopkins. Given that the school offers nearly 400 courses each year, this freedom is both a strength and a weakness.

In 1994, a highly successful elective course entitled 'MPH Educational & Professional Goals Analysis' was introduced to provide a structured process for curriculum planning. Approximately 7% of the incoming students availed themselves of this opportunity. The student and advisor concentrated first on defining the type of position the student wished to fill upon graduation. With the goal clearly defined, the focus shifted to developing a curriculum plan which would attain that goal. The final product was a paper outlining the student's educational needs, a curriculum plan to meet those needs, and a rationale as to how the proposed curriculum would meet those needs.

The aggregate data from this exercise was also used to assess the extent to which required and elective MPH curriculum options were available to meet students' needs and to identify scheduling conflicts and other logistical constraints of importance to students.

Public Health Problem Solving:
An Educational Paradigm for Professional Practice
Michael E. Thompson, Bernard Guyer, Haroutine K. Armenian

In 1991, as part of an evolving process to enhance the curriculum of the school's Master of Public Health Program, faculty of the Johns Hopkins University School of Hygiene & Public Health developed a course to provide incoming students with 1) a sense of the scope of public health problems, 2) an understanding of the multi-disciplinary team orientation of public health practice, and 3) a conceptual framework for responding to a variety of public health problems.

Over the last four years, the course has been revised into a highly effective means of introducing a paradigm for professional practice. The course explicates a six-step problem solving paradigm while providing training in multi-disciplinary and multi-cultural team functioning and allowing students to apply these skills in addressing a 'real world' problem.

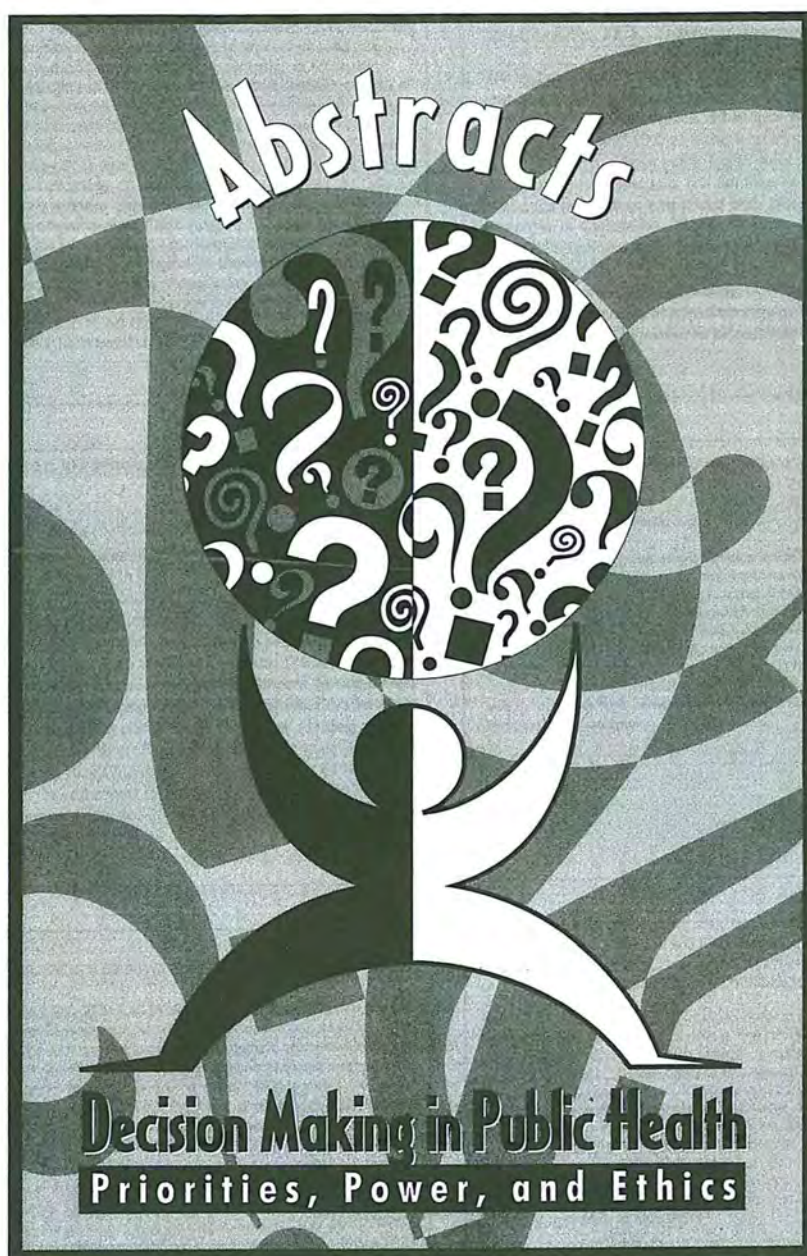
The presentation will focus on the process used in developing the paradigm, describing the paradigm in detail, addressing the logistical constraints of implementing the course and actively involving students in its design, and evaluating its utility as a teaching tool.

National Tobacco Control Efforts: Opportunities for mobilizing our Nation's women. D. Grande, C. Graffunder, K.C. Harty and J. Jordan.

In the years between the first Surgeon General's report on the health consequences of smoking (1964) and the first report specifically addressing smoking and women (1980), female smoking rates remained relatively flat. However, since the 1980 report, female rates have been on the decline. Women accounted for 60 percent of the total labor force growth between 1982 and 1992. [Women now comprise 46 percent of the overall workforce, an overall growth from 38 percent in 1978 (DOL, No. 92-1; Jan. 1992).] Up until the last decade, the tobacco issue was predominately centered in the medical and scientific communities, communities not heavily represented by the female population. Since the 1980's, the number of women in these fields has grown. Women comprised 79 percent of the working population in the health services industry, excluding hospitals. Likewise, women's involvement in the tobacco control movement is growing. Recent funding of state-level programs designed to engage greater numbers of public health professionals and mobilize broader communities of people, have resulted in moving women to the forefront of the tobacco issue. As the number of women involved in and leading efforts at the national, state and local level grows, opportunities exist for women to impact female smoking behavior and mobilize decision makers around tobacco issues. This panel will explore such opportunities from three major national tobacco control efforts, the American Medical Association's SmokeLess States program funded by the Robert Wood Johnson Foundation, the Centers for Disease Control, and Prevention's IMPACT program, and the National Cancer Institute/American Cancer Society's ASSIST program. Using examples from these programs, the presenters will explore the hypothesis that involvement of women in program development, management, and implementation presents unique opportunities to break into new avenues and mobilize greater numbers of advocates to change female smoking trends.

Estimating incidence of HIV among treatment-based and street-recruited samples of injection drug users: current methods, findings, and implications for prevention. D. Rebecca Pruvitt.

Ph.D., M.P.H., Edgar Montenegro, M.D., M.P.H. Division of HIV/AIDS, CDC, Atlanta, GA. Injection drug use remains a leading risk factor for HIV transmission in the United States. Current data on HIV incidence among injection drug users are needed to effectively monitor the HIV epidemic and evaluate the impact of interventions among IDUs and their sexual partners. Methods developed for monitoring incident infection among IDUs include record linkage of persons with repeat confidential HIV tests, and fixed or dynamic prospective cohort studies. In 1994, seroincidence studies among IDUs entering drug treatment centers (DTCs) were initiated in six cities: Los Angeles, CA, Seattle, WA, Houston, TX, Baltimore, MD, New York, NY, and Newark, NJ. During the same period, street-based cohorts of IDUs were also recruited in Los Angeles, New York and Baltimore, as well as in New Haven, CT, Chicago, IL, and San Jose, CA. Data collection is continuing during 1995. Panelists will address: 1) comparison of methodologies for estimating incidence 2) differences in risk behaviors and incidence between treatment-based and street-recruited samples of IDUs 3) prevalence and determinants of harm reduction behaviors including use of needle exchange, factors affecting initiation of injection, and access to drug treatment 4) implications of findings for strategies to reduce transmission among IDUs and their sex partners. Panelists: **Don Des Jarlais, Ph.D.**, Beth Israel Medical Center, New York, NY; **Peter Selwyn, M.D.**, Yale University of Medicine, New Haven, CT; **Mary Utne O'Brien**, University of Chicago, Chicago, Illinois. **David Vlahov, Ph.D.**, The Johns Hopkins School of Hygiene and Public Health, Peter Kerpdt, M.D., HIV Epidemiology Program, Los Angeles County Department of Health Services, Los Angeles, CA; **James McGough**, Seattle-King County Department of Health Services.



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