

# • MONITOR •

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## HOSPITALS: A HAZARD TO YOUR HEALTH?

Hospitals are the third largest employer in the United States; they employ approximately three million full- and part-time workers. Although hospital workers represent a total payroll in excess of 16 billion dollars, they are still one of the lowest-paid service occupations. Excluding doctors, the average income for health care workers in 1974 was barely over \$6000 per year.

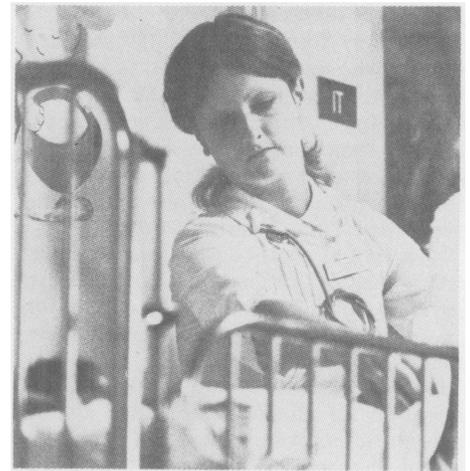
The majority of hospital workers are women or members of other minority groups. Because of the low-paying jobs as well as their stereotyped "nurturing role," women have generally predominated in the health care area. To a large extent, this employee profile accounts for industry-wide low wages, discriminatory employment practices, and minimal benefits.

Despite their mission, hospitals are not safe places for workers (or even many patients!). A NIOSH study of nearly 4000 hospitals revealed that most have inadequate health and safety programs for their workers. Over 30% of the hospitals studied did not

have a formal occupational health program for their employees. Less than 15% reassigned pregnant workers to safer working conditions. The overall lack of unionization of hospital workers has allowed these conditions to continue.

### INJURIES AND ILLNESSES

Statistics show that accidental injuries have been increasing among hospital employees at an alarming rate. Strains and overexertion (mainly from supporting and lifting patients) head the list of common causes of injuries. A medical center in San Francisco found that nearly one-half of their Workers' Compensation costs were for back injuries. Staffs of geriatric wards (for treatment of older patients) often suffer back injuries because these patients need more physical support. Broken glassware, stray hypodermic needles, falls on wet, slippery floors, inadequate lighting, and electrical hazards are other common causes of hospital injuries.



Some sources of occupational illness in the hospital include:

**Biological hazards:** Hospital workers risk infection by bacteria or viruses ("germs") as a result of direct patient contact, from tissues or blood samples, discarded needles,

*Continued on p. 4*

## STATE REPORT CLAIMS FOUNDRY INJURIES PREVENTABLE

Since the federal Occupational Safety and Health Administration (OSHA) announced in 1975 that the foundry industry nationwide was being selected for special attention, both federal and state agencies charged with safety and health responsibilities have been giving close scrutiny to this extremely hazardous industry.

OSHA has announced a National Emphasis Program (NEP) focusing on the foundry industry. If successful, NEP will be a model for future OSHA efforts in industries with higher than usual incidences of occupational injuries and disease. NEP includes training, consultation, inspection, education, and evaluation.

The foundry industry in the U.S. consists of over 5,000 shops with slightly less than a quarter million workers. The average number of workers per shop is thus less than 50. More than 450 of the nation's foundries are

in California, the second largest number in any state (only Ohio has more.) Consequently, the California Division of Labor Statistics and Research has selected the foundry industry for a special statistical study. The results were announced recently by Dr. Sara Behman, Chief of the Division.

Workers in California's iron and steel foundries are four times as likely to suffer a disabling job injury or illness as are other California employees, the study found. Iron and steel foundries recorded an incidence rate of 16.2 lost workday cases per 100 full-time workers compared with 4.1 for the private sector as a whole, and 5.1 for manufacturing industries as a whole.

Almost nine out of ten disabling injuries and illnesses in California foundries might be prevented by compliance with safety orders on personal protective devices, and by proper safety and health training, the study

concluded. 31% of disabling injuries and illnesses in foundries could have been prevented by proper use of personal protective devices, while 56% would have been preventable had there been improved training or education.

62% of the injuries and illnesses preventable through improved training involved materials handling. This included manual handling of materials and handling of materials with manually-powered implements, such as ladles, wheelbarrows, and shovels. The next largest class of training-preventable incidents involved machine operations.

The report has been published as *Cal/OSHA Administrative Research Bulletin No. 1: Iron and Steel Foundries*. It may be obtained from the California Division of Labor Statistics and Research, P.O. Box 603, San Francisco, CA 94102.

## UNION STUDY UNCOVERS SHIPYARD EPIDEMIC OF "WHITE LUNG" DISEASE

A union medical study has uncovered a potential epidemic of asbestos-related "white lung" diseases among Mare Island (Calif.) shipyard workers.

The study also implies that diseases related to asbestos could extend to a major proportion of the more than 250,000 people estimated to have worked in Bay Area shipbuilding and repair since World War II. The danger affects all California asbestos industry employees as well.

The estimate of the size and seriousness of such an epidemic comes from Dr. Phillip L. Polakoff, now of Berkeley's Herrick Memorial Hospital, author of the Mare Island study. Polakoff said that asbestos disease could produce a health problem greater than tuberculosis has ever been.

The study found that, of 359 shipyard workers who were first exposed to asbestos at least ten years ago, 213 (59 per cent) showed lung abnormalities that are compatible with asbestos-related disease. The diseased workers included not only those who worked directly with asbestos but also those who were exposed only to airborne fibers.

At a July 11 press conference, Dr. Polakoff joined California AFL-CIO Executive Secretary John F. Henning in calling for vigorous state and federal government action to deal with the problem.

Henning emphasized that Workers' Compensation for all such cumulative disease and injuries must be guaranteed. The concept of compensation for cumulative disease



or injury is currently under attack, Henning said. He suggested that imposition of increased liability would encourage employers to provide safer and healthier workplaces and to reduce exposure to death-dealing industrial materials.

John Robinson, President of the Federal Employees Metal Trades Council, Benicia, which initiated the Polakoff study, called for a federal "white-lung" law similar to the "black-lung" law covering coal miners.

He also urged removal of asbestos from the workplace and federal appropriations to deal with problems left in the wake of asbestos exposure, including medical examina-

tions and extensive research. He was joined in these demands by Allen B. Coats, general representative of the AFL-CIO Metal Trades Department, and Charles Ay, Secretary of Asbestos Workers Local 20, Long Beach.

Robinson noted that, although x-rays of Mare Island workers had been in the Navy's possession, it had never told any of them that they faced lung problems.

Other studies in both the U.S. and Great Britain have found extensive diseases among shipyard workers who were exposed, both directly and indirectly, to asbestos. Dangers of exposure have also been found to extend to the families of exposed workers.

## Senator and AFL-CIO Criticize White House Proposal to Weaken OSHA

Senator Harrison A. Williams, Jr., chairman of the Senate Committee on Human Resources, has informed President Carter that he is "outraged" by a proposal of three top White House aides to use economic incentives to business rather than enforcement of safety rules to achieve safer workplaces.

Williams, along with William DuChessi, president of the Amalgamated Clothing and Textile Workers Union, and a spokesman

for the AFL-CIO have criticized suggestions made in a memo signed by Bert Lance, director of the Office of Management and Budget, Charles Schultze, chairman of the Council of Economic Advisors, and Stuart E. Eizenstat, assistant to the President for domestic affairs. The memo recommended that Carter consider "totally eliminating most safety regulations and replacing them with some form of economic incentives, for example an improved workman's compensation program or economic penalties tied to the injury rate."

"I am outraged at the suggestion that we let compensation of injured workers be the only means of encouraging workplace safety," Senator Williams wrote. "The suggestion that we do nothing to protect workers and only compensate their families after they have been killed or maimed in our factories and shops is a totally unacceptable policy."

DuChessi called the plan "nothing more than fees for an industrial hunting license." The AFL-CIO termed it "an attempt to gut OSHA."

## CORRECTION

*The following is a statement by LOHP staff member Paul Chown, clarifying statements incorrectly attributed to him in the last Monitor.*

The May-June, 1977 issue of *Monitor* (p. 1, col. 2-3) incorrectly summarized my remarks at the Building Trades Health and Safety Conference.

I endeavored to make three major points:

- 1) that the health and safety of employees is clearly the responsibility of employers and should be so stated in union agreements;
- 2) that union safety committee members, whether serving on a joint committee or functioning as an independent union structure should endeavor to be as well trained and knowledgeable as possible in health and safety factors affecting their particular employment; and
- 3) that the legal concept of the duty of fair representation creates a favorable climate and rationale for health and safety committee members to function more effectively.

### Worker's Comp Has Toll-Free Line

A 24-hour toll-free number is now available for you to ask any questions about Workers' Compensation insurance.

The number, 800-652-1500, instituted by the California Department of Industrial Relations, is part of the state's program to inform and educate workers about their rights and benefits under the law.

## NIOSH Recommends Exposure Standard For Waste Anesthetic Gases And Vapors

The National Institute for Occupational Safety and Health (NIOSH) has completed a criteria document for occupational exposure to waste anesthetic gases. (NIOSH criteria documents are transmitted to federal OSHA as proposals for OSHA exposure standards.)

NIOSH estimates that 214,000 workers in the United States, including anesthesiologists, nurse-anesthetists, operating room nurses and technicians, oral surgeons, dentists and their assistants, and veterinarians and their assistants are potentially exposed to waste anesthetic gases.

As defined in the NIOSH document, waste anesthetic gases include nitrous oxide, halothane, enflurane, methoxyflurane, diethyl ether, and cyclopropane.

### RISKS

Several studies have found increased risks of spontaneous abortion in exposed female workers and congenital abnormalities in their children. One study found similar risks in the wives and children of exposed workers. Two studies reported an increased incidence of cancer among exposed female workers. Adverse effects on the liver and kidneys were also reported in some surveys.

Psychomotor performance was affected in human volunteers in some of the studies where nitrous oxide concentrations were 500 ppm. Audiovisual effects occurred at levels as low as 50 ppm. The usual occupational exposure for nitrous oxide ranges from 400 to 3000 ppm.

NIOSH is unable to identify a safe level of exposure for waste anesthetic gases. Therefore it recommends that the risk be mini-

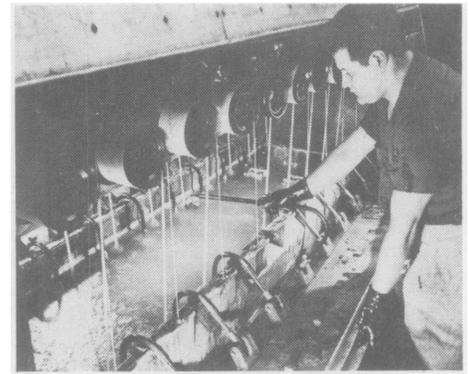
mized by reducing exposure to the greatest extent possible. Where halogenated agents are used alone, exposure should be limited to the lowest level detectable by applicable monitoring methods: 2 ppm based on a 1-hour sample. Where halogenated agents are used in combination with nitrous oxide, concentrations of 0.5 ppm for halothane or other volatiles and 25 ppm for nitrous oxide are feasible. When nitrous oxide is used alone (as in dentistry), 25 ppm is recommended.

The recommended standard also includes engineering controls, work practices, record-keeping, and monitoring the health of employees.

## NIOSH Suggests Limits For Carbon Disulfide

An internal report from NIOSH recommends that the exposure limit for carbon disulfide be set at 1 ppm, averaged over 8 hours, with a ceiling limit of 10 ppm for one 15-minute period during the workday. The recommendation also calls for regular air sampling. Carbon disulfide is a highly flammable organic compound used in the production of carbon tetrachloride, grain fumigants, and rayon or other synthetic fibers. NIOSH estimates that 20,000 workers may be exposed to carbon disulfide on a full-time basis, and up to 120,000 on a part-time basis.

The health effects of carbon disulfide are varied and include diseases of the heart and blood vessels, changes in the nervous system including behavioral changes, and possible reproductive effects. These conditions have been seen in both U.S. and foreign studies. For example, a NIOSH study showed the substance in 13% of the workers in a viscose rayon plant in Fort Royal, Virginia. A Finnish study of 1,500 viscose rayon workers showed that with exposure of at least five

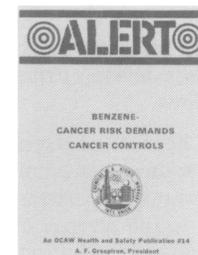


*A textile worker making rayon extrudes fibers containing carbon disulfide in an acid bath. NIOSH has issued recommendations for an exposure standard for carbon disulfide which, if adopted, could make this process less hazardous. (Photo courtesy of Amalgamated Clothing and Textile Workers' Union)*

years there was faster than normal buildup of fat deposits in the blood vessels, chest pains, higher than normal blood pressure, and abnormal electrocardiograms (a chart showing the activity of the heart.) Changes in behavior were also noted.

Foreign studies also indicate that carbon disulfide exposure causes lower sperm counts in men, menstrual disorders in women, and an increased number of spontaneous abortions.

The NIOSH report also recommends specific measures for controlling worker exposures to carbon disulfide. These include: rotation of workers; improvement of plant ventilation; and where possible complete enclosure of systems.



*The Oil, Chemical and Atomic Workers International Union has issued this Alert on the hazards of benzene. OCAW health and safety publication #14 is available from OCAW Health and Safety Office, P.O. Box 2812, Denver, CO 80201.*

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### STAFF

Janet Bertinuson	Paul Chown
Gene Darling	Morris Davis
Andrea Hricko	Ken Light
Jeannie Lum	Ken McGrew
Madelyn O'Brien	Sidney Weinstein
Donald Whorton, <i>Director</i>	

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## HOSPITAL HAZARDS

Continued from p. 1

contaminated bed linens, dressings, human wastes, or laundry.

Both viral hepatitis and tuberculosis occur more frequently among hospital workers than among the general population. A 1971 Swedish study found a 15-times higher than normal rate of hepatitis in the hospital workers studied. In the U.S., hepatitis has been known to spread from patients to staff in intensive care units, kidney dialysis and organ transplant units, hematology-oncology (blood and cancer) wards, as well as in general medical and surgical areas.

Pregnant hospital workers may also be at special risk since many viruses or diseases (e.g. mumps or German measles) have been linked with birth defects or with miscarriages following exposure during pregnancy. In addition, anesthetic gases in the operating room are believed to cause increased rates of miscarriage, birth defects, and cancer among OR personnel.

**Radiation:** X-ray technicians, radiologists, and persons working with radioactive tracers are the hospital workers most likely to be exposed to ionizing radiation. Excessive x-ray exposure can cause genetic damage, cancer, or even sterilization. Other workers potentially at risk include nurses, aides and orderlies who position patients for portable x-rays, housekeeping workers if radioactive syringes are improperly discarded, and even food handlers if the microwave ovens used to heat patient food are not properly sealed.

**Skin disorders:** Because of the frequent exposure to drugs and cleansers, many nurses and housekeepers experience skin reactions (usually contact dermatitis.) Many lab workers and pathology assistants develop irritations from chemical solutions.

**Emotional problems:** The staff of intensive care units, emergency rooms, and terminal illness wards work in emotionally stressful situations due in part to the severity of the illnesses of the patients. In addition, having to work overtime intensifies the stress and fatigue of these workers.

**Assaults by patients:** This is a particular problem in mental hospitals where there is an inadequate number of staff. Assaults are also a risk for emergency room personnel.

**Electrical:** Other hazards from various equipment—even new pieces—are often present. Faulty design of products, inadequate grounding, and faulty wiring are common electrical risks. Electrical hazards in intensive and coronary care units are of great concern, particularly to patients.

## ACTION

The following protective actions can be taken to make hospitals safer places in which to work:

- re-examination of staffing patterns to determine adequacy
- education on lifting techniques; mechanical lifting aids or extra staff to help
- non-skid floors and non-slip shoes
- needle collection programs for needles and syringes; lined garbage cans
- foot pedals for laboratory sinks
- adequate isolation and decontamination procedures for infectious diseases
- record-keeping systems to monitor infectious diseases among hospital workers
- pre-employment exams and vaccination, plus periodic medical exams relevant to the hazards faced by employees
- scavenging devices in operating rooms to remove waste anesthetic gases
- transfer of pregnant workers to safer jobs, upon request
- labeling of housekeeping solutions; substitution of safer materials for irritants or toxics
- compulsory maintenance of electrical equipment and inspection of new equipment
- organization of a health and safety committee, whether or not there is a union.

## FOR MORE INFORMATION:

"Hospital Hazards" by Urban Planning Aid, 639 Massachusetts Avenue, Cambridge, MA 02139. 4 pp.

"Gajes del Oficio—Trabajadores Hospitales" can be ordered from Larry Elizarde, SEIU Local 250, 240 Golden Gate Avenue, San Francisco, CA. 8 pp.

"Health and Safety for Registered Nurses" by American Federation of Nurses, SEIU. Local 535, 2936 McClure Avenue, Oakland, CA 94609. 4 pp.

National Institute for Occupational Safety and Health *Nationwide Survey of Hospital Occupational Health Services*, Part VII: Summary and Conclusions (including a good bibliography.) 40 pp. Order from: NIOSH, Division of Technical Services, Cincinnati, Ohio 45202.

## Cancer Rate Increase in Nonwhite Males

At a Congressional hearing into the National Cancer Institute's management of the "war on cancer" in June, the government's top health statistician said that "the most startling, most important" rise in cancer deaths in the last 25 years has occurred among blacks and other nonwhite adult males.

Dorothy M. Rice, Director of the National Center for Health Statistics, said that between 1950 and 1975 the increase in the cancer death rate of the nonwhite male population was more than twice as high as among white males. Increase in the death rate for the period has been about 26% for nonwhite males and about 12% for white males.

Rice said that part of the reason lay in the heavy migration of blacks from rural areas into industrialized cities where, in higher proportions than whites, they took jobs that exposed them to cancer-causing chemicals.

The hearing was held by the House Intergovernmental Relations and Human Resources Subcommittee.

—Washington Post

Institute of Industrial Relations,  
University of California  
Center for Labor Research and Education

2521 Channing Way  
Berkeley, CA 94720

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