



Getting Home Safe and Sound: Occupational Safety and Health Administration at 38

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The Occupational Safety and Health Act of 1970 (OSHAct) declared that every worker is entitled to safe and healthful working conditions, and that employers are responsible for work being free from all recognized hazards. Thirty-eight years after these assurances, however, it is difficult to find anyone who believes the promise of the OSHAct has been met.

The persistence of preventable, life-threatening hazards at work is a failure to keep a national promise. I review the history of the Occupational Safety and Health Administration and propose measures to better ensure that those who go to work every day return home safe and sound.

These measures fall into 6 areas: leverage and accountability, safety and health systems, employee rights, equal protection, framing, and infrastructure. (*Am J Public Health*. 2008;98:416–423. doi:10.2105/AJPH.2007.117382)

Society entrusts regulatory and enforcement agencies with awesome powers. They can impose economic penalties, place liens upon or seize property, limit business practices, suspend professional licenses, destroy livelihoods. . . . How regulatory and enforcement agencies use these powers fundamentally affects the nature and quality of life in a democracy.

—Malcolm Sparrow¹

THE OCCUPATIONAL SAFETY and Health Act of 1970 (OSHAct)² was adopted with high expectations during an era of significant social reform. Its statement of national purpose and provision of regulatory authority marked a departure from years of government indifference to workplace injury, illness, and death. And yet, 38 years after Congress established the Occupational Safety and Health Administration (OSHA) to implement the OSHAct and to “assure so far as possible every working man and woman in the Nation safe and healthful working conditions,” a worker still becomes injured or sick from a dangerous job every 2.5 seconds³ and a worker dies from a workplace injury or illness every 8 minutes.⁴

DESPITE PROGRESS, STILL WORKING IN HARM’S WAY

Although it is difficult today to find anyone who believes that the promise of the OSHAct has been met, workplaces have generally become safer since 1970. OSHA rules such as those for cotton dust, inorganic lead, and blood-borne pathogens have resulted in reduced exposures and illnesses.⁵ Injury rates have decreased in workplaces in which there have been inspections and enforcement.⁶ OSHA has given

unions tools that enhance their ability to get employers’ attention. It has given safety and health professionals in the business community more credibility and leverage with upper management.

These improvements mask serious problems remarkably resistant to change. Although the national rates for workplace injuries and deaths dropped from 11.0 per 100 workers in 1973 to 4.6 per 100 in 2005, caused at least in part by activities set in motion by the OSHAct,⁷ the rate of more-severe cases (with restricted or lost workdays) has stayed almost flat, declining only from 3.4 to 2.4 per 100.⁸ Using state trauma registry data on severe occupational trauma, Friedman and Forst found that

in contrast to reports from national surveillance data sets, we do not observe a significant decline in occupational injuries between 1995 and 2003.⁹

Of the top 4 causes of workplace fatalities, only 1 (homicides) has decreased in number in the past 15 years; the other 3 (falls, highway incidents, and being struck by objects) have increased.¹⁰ Most of these injuries and illnesses are predictable and preventable, with disproportionate burden on such high-risk workers as construction laborers, nurses’ aids, and farmworkers.

For example, the number of fatal work injuries among foreign-born Hispanic workers has nearly tripled in less than 15 years,¹¹ partly because the numbers of immigrants at work has been increasing but also because they are concentrated in dangerous jobs.

Today’s workers confront 4 types of workplace risks, each of which presents unmet challenges. First, many dangers, such as falls from roofs or amputations from unguarded machinery, were widely recognized in 1970 and should have been virtually eliminated years ago. For some, simple means of correction have been understood for thousands of years. Herodotus (c. 484–425 BCE) described the prevention of fatal trench collapses in the Persian Wars in 450 BCE,¹² yet every week American workers die in trenches inadequately sloped, shored, or shielded.

Second, workers face hazards present in 1970 but only fully appreciated more recently, such as the forceful exertions, repetitive movements, and awkward postures that cause the musculoskeletal disorders that account for more than 30% of all worker compensation claims. Other examples include workplace violence and biohazards.

Third, some hazards have entered the workplace since 1970; these include food flavorings



containing diacetyl, which cause bronchiolitis obliterans (“popcorn lung”),¹³ and modern metalworking fluids that cause hypersensitivity pneumonitis.¹⁴

Fourth, the changing political, economic, and legal landscape of work is creating potential new dangers. Globalized businesses, lean manufacturing, outsourcing, reduced pension security, an aging workforce, declining unionization, and changing immigration patterns have altered the experience of work. The breakdown of long-term employer–employee relationships, the increase in “independent” contracting, and the disappearance of traditional career paths have eroded job stability, leading to stresses whose consequences are not yet fully understood.¹⁵

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION'S FADING PROMISE

While workplace dangers have evolved, the OSHAct has remained virtually unchanged for 38 years. Congress based it on conventional principles of state power in a democracy, blending long-established tools of regulation, enforcement, and technical assistance. Congress established a general duty for employers to provide work “free from recognized hazards that are causing or are likely to cause death or serious physical harm.”¹⁶ It authorized OSHA to set additional specific rules and empowered the agency to secure compliance by exercising its police power, supplemented by assistance for voluntary compliance.

Workers are provided the right to file complaints and accompany inspectors. States may assume jurisdiction if their programs are at least as effective as OSHA's.

The OSHA model presumes that market incentives to reduce hazards are so imperfect that the threat of citation and penalty is necessary for worker protection,¹⁷ and that without federal oversight, state governments cannot ensure equal protection. This approach reduces inequities by making it difficult for unscrupulous employers to attain competitive advantages by saving on the costs of injury prevention.

Notwithstanding the fundamental soundness of design, the system has structural and political weaknesses that were exposed almost immediately by critics across the ideological spectrum.¹⁸ The business community was angered by OSHA's first inspectors issuing thousands of citations for nonserious violations. Labor representatives were angered by OSHA's failure to identify and cite serious ones. The situation worsened when OSHA turned hundreds of obsolete and sometimes trivial consensus standards into enforceable rules, exposing the agency to public ridicule. Then, in a confidential memo that later became public, the agency's first assistant secretary, George Guenther, pledged “four more years of properly managed OSHA for use in the campaign” to reelect Richard Nixon, including “no highly controversial standards.”¹⁹

Following this start, OSHA has never been free enough from political turmoil to address the

limitations of the OSHAct itself. Twenty-five years after the act's passage, Kniesner and Leeth, writing for the politically conservative Cato Institute, described OSHA's shortcomings in language that could have been written by OSHA's more liberal supporters:

OSHA inspectors frequently overlook dangerous working conditions, and even when they find serious health and safety violations, inspectors often cannot compel firms to eliminate the hazards discovered. To encourage timely compliance, administrators often slash assessed penalties, further reducing the already minor economic incentives for firms to observe health and safety standards. Firms realize that it is unlikely that they will be inspected . . . and if they are inspected, firms can avoid paying severe fines by simply agreeing to abide by OSHA's regulations in the future. . . . OSHA as originally conceived in 1970 is withering away.²⁰

Even when OSHA has been especially visionary and creative in pushing the margins of the OSHAct beyond routine regulation and enforcement, these incentive efforts have failed to overcome legal and political barriers. OSHA's generic cancer policy was pulled back by the Reagan administration after the Supreme Court's decision to overturn the rule OSHA had established to regulate workplace exposure to benzene.²¹ The update of hundreds of permissible exposure limits was invalidated by the 11th Circuit Court's requirement of substance-by-substance analysis.²² OSHA's ergonomics standard was repealed under the Congressional Review Act,²³ and the Cooperative

Compliance Program, which provided incentives for safety and health management programs in exchange for reduced inspection priority, was overturned in court.²⁴ Other examples of imaginative and promising OSHA programs whose impact and use have remained limited include instance-by-instance citations for egregious violations, corporate-wide settlement agreements, and economic protection for workers removed from lead-exposed jobs for medical reasons.

OSHA has become essentially irrelevant to most employers (although still vilified by many lobbyists). Infrequent OSHA inspections and small OSHA penalties provide little incentive for employers to pay attention to and comply with the agency's rules. Acts of willful disregard of OSHA rules leading to workplace deaths regularly escape meaningful punishment. Employees are discouraged from filing complaints because the OSHAct provides insufficient protections from discrimination. Nothing has better illustrated OSHA's impotence than the failure to use its authority to protect emergency response and recovery workers after the September 11, 2001, attack on the World Trade Center. Many of these workers now show evidence of preventable lung disease, caused at least in part by OSHA's decision not to enforce its rules requiring the use of respirators for months.²⁵ The aftermath of the attack revealed other stubborn problems: public employees not covered by the OSHAct, overlapping and ambiguous government jurisdictions,



thousands of immigrant and temporary employees without clearly defined employer–employee relationships, and a lack of rules for basic safety and health management programs, medical surveillance, or exposure assessment.

PROBLEMS WITH THE PARADIGM

Four barriers to OSHA's success are so inherently linked to the statutory design of regulation, inspection, and education that even the most skilled and determined administration cannot expect to overcome them.

First, OSHA enforcement, the agency's most demonstrably effective tool, falls short. Although there is evidence that injuries decline in workplaces that have been inspected by OSHA,²⁶ only 1% of workplaces are inspected yearly and there is little evidence that inspections have a ripple effect on similar, uninspected workplaces²⁷ (although one study did find an industry-wide reduction in injuries from falls following a new fall protection rule²⁸). This is hardly surprising given OSHA's infrequent inspections and consultation visits and the small penalties it issues, with those for serious violations (involving substantial probability of death or serious harm) averaging under \$900 in 2005.²⁹

Even if the penalties had stimulated businesses to comply with OSHA rules, the impact on injury rates would have been limited because of the poor match between these rules and the causes of workplace fatalities

and injuries.³⁰ In the construction industry, 31% of injuries in 1994 involved workers being struck by objects, but only 4% of OSHA citations that year were for violations related to this hazard. In 2005, assaults and violent acts were responsible for 14% of workplace deaths, but there are no OSHA rules addressing the causes of workplace violence. In addition, 30% of all worker compensation claims are from work-related musculoskeletal disorders, yet except in California, there are no OSHA standards for ergonomics. Increased compliance with existing rules can be only partially effective in reducing hazards and preventing injuries.

Second, other than anecdotes, there is little evidence that OSHA's consultation and other voluntary programs, accounting for 28% of its 2003 budget, have had a measurable impact on hazards, injuries, or illnesses.³¹ The US General Accounting Office recently evaluated OSHA's 4 major voluntary compliance programs and concluded that although participants believe they are effective, "the agency does not yet have adequate data to assess their individual and relative effectiveness."³²

Third, OSHA sends its small group of inspectors to inspect 1 workplace at a time, a never-ending pursuit as inefficient and unsatisfying as trying to season food one grain of salt at a time. Even with vastly increased resources, OSHA would never come close to the field visibility and penetration necessary for a major impact. With only 2000 federal and state inspectors for

some 8 million workplaces, there are only about 100 000 inspections a year. Each workplace can expect an inspection once every 88 years (compared with federal requirements that each school cafeteria have 2 food safety inspections per year³³ and that each underground coal mine have 4 inspections per year³⁴).

Fourth, the OSHAct was written when employees were more likely than they are today to hold a long-term job with a single, stable employer and to be represented by a union. Today's employment landscape—characterized by transnational businesses, global outsourcing, contingent employment, "independent" contracting, and a shadow economy of underground business relationships—makes it more difficult to find the kinds of workplaces for which the OSHAct was written.

PUSHING THE BOUNDARIES

Many ideas for administrative and statutory OSHA improvements have been proposed.³⁵ Most, such as higher penalties or bigger budgets, have sought incremental progress in implementing the current model. However, given today's hazards and OSHA's design, it is not likely that simply working harder and better to do more of the same will achieve significant results. Although fine-tuning the OSHAct is necessary, a more profound shift in strategy is also needed, one that might have 4 elements: leveraged impact, safety and health systems, independent employee rights,

and equal protection. (Some proposals for even more extreme redesign of the system are worth noting but are not further discussed here: required redesign of technology,³⁶ making business licenses contingent on a reduction in injury rates,³⁷ and injury taxes.³⁸)

Leverage and Accountability

Under the current honor system, employers are required to comply with the rules but do not have to demonstrate compliance unless they are inspected. An alternate paradigm would leverage the small government inspectorate into a vastly expanded field presence by requiring every workplace to obtain an annual certification that it was inspected and in compliance with OSHA rules or operating under an abatement plan. The annual inspections would be done by private professionals licensed by and operating under rules established by OSHA. OSHA would conduct random field audits and continue to respond to complaints, fatalities, and catastrophes. Business owners would sign a declaration of compliance and be accountable for acts of negligence, fraud, and collusion.

Variations of this model already exist: construction and maritime crane certification under some state OSHA programs, pressure vessel inspections by insurance companies, hospital accreditation by the private Joint Commission on Accreditation of Health Care Organizations, clinical laboratory inspections by private accrediting organizations overseen by the Department of



Health and Human Services, the designation of private persons to inspect aircrafts on behalf of the Federal Aviation Administration, and certification of facilities by private nonprofit accreditation bodies under the Mammography Quality Standard Act.³⁹

Proposals having some of these features are made periodically, with some business support and strong labor opposition.⁴⁰ For example, Senator Mike Enzi's (R-WY) Occupational Safety Partnership Act, proposed in 2005 but not enacted, would have allowed employers to engage private consultants for voluntary safety audits, with exemptions from most OSHA penalties.

The leveraged inspection program I suggest would differ significantly from the Enzi model in that inspections and certification would be mandatory, OSHA would perform audit and quality control functions, and business owners would be held accountable for performance. There would be sufficient checks and balances to avoid the dangers of uneven enforcement and of regulators becoming unduly influenced by the regulated community, which can happen when government delegates functions to the private sector.⁴¹

Even if the concept of a leveraged enforcement system is judged to be sound, substantially more discussion of the strengths and weaknesses of alternate program designs and operational details is needed. For example, would results of certification inspections be publicly available or discoverable in legal proceedings? Who would pay the inspectors

and how could their independence be protected? How would OSHA maintain sufficient control over the inspection procedures?

Safety and Health Systems

Annual certification would have little value if it just documented compliance with rules for a limited number of specific hazards. It would be more meaningful in the context of a generic requirement for safety and health systems that find and fix recognized hazards. Voluntary models that include management commitment, employee participation, training, exposure assessment, hazard control, and medical surveillance already exist.⁴² Several state OSHA or workers' compensation laws require safety and health systems for at least some employers.⁴³ Since 1989, OSHA has believed in

a strong correlation between the application of sound management practices in the operation of safety and health programs and a low incidence of occupational injuries and illnesses.⁴⁴

Smitha et al. have reported that such safety programs are associated with reduced workplace injury rates.⁴⁵

Independent Employee Rights

The legislative history of the OSHAct demonstrates the importance Congress placed on employee participation.⁴⁶ Accordingly, employees have rights to file complaints, accompany inspectors, be informed about hazards, and be protected from discrimination. These provisions

essentially provide workers with opportunities to help OSHA carry out its duties rather than providing means to play an independent role in their protection. As a result, especially in nonunion workplaces, the dynamic of safety and health is bipartite, between employer and government, with workers playing a marginal role.

A more balanced tripartite system would include stronger rights to refuse unsafe work and mandatory labor-management safety and health committees (with or without authority to shut down imminently dangerous operations). Smitha et al. have reported an association between mandatory safety committees and reduced injury rates.⁴⁷ One challenge in establishing safety committees would be in ensuring that they did not become de facto management-dominated bodies violating Section 8(a)(2) of the National Labor Relations Act.⁴⁸

Another step to strengthen employee involvement would be giving workers the right to initiate legal action when employers endanger them or discriminate against them. There is precedent for such rights. The Federal Mine Safety and Health Act provides workers the right to file antidiscrimination actions on their own behalf with the Mine Safety and Health Review Commission or a federal court of appeals.⁴⁹ More than a dozen federal environmental laws, including the Clean Air Act, Safe Drinking Water Act, and Emergency Planning and Community Right to Know Act, provide for citizen suits.⁵⁰

Equal Protection

Most public employers are exempted from all requirements of the OSHAct, except for state and local government agencies in the 26 states that operate OSHA-approved state plans and the US Postal Service. Federal agency heads are directed by executive order, but not by law, to comply with OSHA rules. This gap needs to be closed.

POLICY AND POLITICS

Good ideas are often held hostage to political realities, and these have made significant change to the OSHAct almost unthinkable. The substantive changes to the OSHA system suggested in the previous section will be impossible unless several political barriers are addressed.

Framing

Workplace safety has been marginalized as a matter of public concern. For example, soldiers are killed "in the line of duty" while construction workers die in "freak accidents." There are many reasons for our national disrespect and disregard for workplace injury and illness, including that workplace deaths usually happen 1 at a time behind factory walls or construction gates, as well as the persistent myth that workers who die must have been careless.⁵¹ Whatever the reasons, this public blind spot must be addressed. Workplace health and safety need to be linked to the broad, resonant themes of the American experience and myth—opportunity, self-expression, family, fairness,



justice, and human rights. Our vocabulary and symbols must convey that an injury at work breaks the American promise of a fair reward for a hard day's work, that workplace injury is a violation of a revered trust.

A few examples show how workplace safety and health can be linked with a broader health and human rights agenda. The fight against workplace lead poisoning in the 1970s was coupled with efforts to protect children from lead paint and to eliminate community harm from leaded gasoline. In the 1980s, the campaigns for the right of workers and communities to know about hazardous exposures were effectively combined. Today, state legislatures seem particularly interested in protecting health care workers from the hazards of heavy manual lifting when worker safety is connected with patient safety and described as "safe patient handling."

One barrier to public recognition of workplace injuries has been significant underreporting. Twenty years after the National Academy of Sciences reported that our system for counting workplace injuries and illnesses was grossly inadequate and recommended 24 improvements, the only significant advance has been the Census of Fatal Occupational Injuries, which provides an improved count of deaths from workplace injuries (but not illnesses).⁵² The Bureau of Labor Statistics annual survey still fails to count as many as two thirds of all work-related injuries and illnesses.⁵³ Rosenman and others have noted the need

for a multisourced surveillance system for collecting data on nonfatal injuries and occupational diseases that is comparable to the system for traumatic fatalities and is not dependent on employer reporting.⁵⁴

Connections

The connections between workplace, environmental, and community health become meaningful through practical work around issues of shared importance. Previous efforts (e.g., the Urban Environment Conference in the 1970s and the OSHA/Environmental Network in the 1980s) did not achieve lasting success.⁵⁵ Recent promising developments include the New Jersey Work Environment Council campaign for safe design technology for chemical plants to protect workers, communities, and the environment,⁵⁶ and the emergence of worker centers, which have discovered that "safety violations march hand in hand with racial and ethnic discrimination."⁵⁷

Infrastructure

Durable success requires an institutional infrastructure that provides the intellectual framework and operational capacity for change. Infrastructure would include community-based advocacy groups, unions, professional and trade associations, labor-management organizations, think tanks, legal support, and training resources. It would provide mechanisms bringing safety and health professionals from the business community together with union and community activists to encourage the

exploration of common interests and objectives.

The most notable earlier infrastructure effort joined professionals with union and community representatives in committees on occupational safety and health (COSHs) in the 1970s and 1980s. COSH agendas included training and technical support to worker groups along with political organizing. These groups functioned within a supportive network, including university-based labor centers,⁵⁸ National Institute for Occupational Safety and Health (NIOSH) educational resource centers, the Society for Occupational and Environmental Health,⁵⁹ the Association of Occupational and Environmental Clinics,⁶⁰ the American Public Health Association's Occupational Health and Safety Section,⁶¹ and the safety and health department of the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO). The power of this network was evident in the 1980 defeat of Senator Richard Schweiker's (R-PA) OSHA Improvement Act, which would have exempted many employers from inspections, and the successful campaign for local right-to-know laws, setting the stage for OSHA's 1983 Hazard Communication Rule, which requires employers to provide employees with useful information about the identity and the hazards of workplace chemicals.

Grants from OSHA's New Directions Program, launched in 1978, supported the growth of infrastructure. Originally designed for long-term institutional

competency building, the program was subsequently severely narrowed by OSHA. The current targeted training grant program is more narrowly aimed at technical training; only 25% of its 67 grants provide institutional support. Twenty-two COSHs still exist,⁶² but most are marginal operations, many having shifted direction with grant support for asbestos and hazardous waste removal. A new program is needed that is based on the original New Directions model, substantially larger than the current program, and at least partially supported with private funds so it is less vulnerable to shifting political winds.

The Scientific and Technical Base

Preventing injury and illness often means taking action, in the face of uncertainty, that is based on public health principles and the best available evidence. This requires programs that teach the science of public health in the context of public health policy, law, and politics. NIOSH launched its education and research centers in 1977 with this linkage in mind. Sixteen of these centers currently train physicians, nurses, industrial hygienists, and safety professionals; however, for years they have been troubled by flat, unstable budgets, and their programs have become more narrowly technical. There is a need to develop a new core of knowledgeable, articulate, and committed scientists who accept the challenge of building bridges between public health science and public health policy.



A ROADMAP FOR CHANGE

The OSHAct of 1970 was landmark legislation, straddling the border between labor law and public health. It expressed a stunning set of principles, notably that every working man and woman is entitled to safe and healthful working conditions, and that employers are responsible for work being free from all recognized hazards. The full realization of Congress's vision will be beyond reach without significant new steps. In summary, these include the following.

- (1) Leverage and accountability: a requirement that business owners certify that their workplaces have passed an annual inspection for OSHA compliance, together with oversight of third-party inspectors and provisions to prevent fraud and conflicts of interest.
- (2) Safety and health systems: a requirement that employers have safety and health management systems that effectively find and fix recognized hazards.
- (3) Independent employee rights: establishment of a right for individual workers to take legal action for relief from workplace hazards and authority for labor-management safety committees to shut down jobs with imminent danger.
- (4) Equal protection: extension of OSHAct protections to all workers, including those in all federal, state, and local government workplaces.
- (5) Framing: increased public understanding that workplace safety is part of America's

promise of fairness, justice, and human rights.

- (6) Infrastructure: support for a stable national network of safety and health institutions. ■

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