Preventive Law by Corporate Professional Team Players: Liability and Responsibility in the Work of Company Doctors

Elaine Draper

Follow this and additional works at: http://scholarship.law.edu/jchlp

Recommended Citation
Available at: http://scholarship.law.edu/jchlp/vol15/iss2/9
PREVENTIVE LAW BY CORPORATE PROFESSIONAL TEAM PLAYERS:
LIABILITY AND RESPONSIBILITY IN THE WORK OF COMPANY DOCTORS

Elaine Draper*

INTRODUCTION

Professionals increasingly work in corporations, where they are subject to the decisions of company managers and to legal imperatives stemming from their status as corporate employees. Ironically, as their numbers have grown, their autonomy has diminished. This trend is particularly stark in the case of company physicians, who share neither the independence nor the high status of the solo practitioner.1 Many proc-

* Visiting Scholar, University of California, Berkeley. I am grateful to Kenneth Karst, G. William Domhoff, Richard Abel, Laura Gómez, Eugene Volokh, and Jody Freeman for their thoughtful criticism of earlier versions of this work. Jeffrey Colen provided exceptionally capable research assistance. I also wish to thank the Russell Sage Foundation and the Haynes Foundation for their generous research support.

esses that transform corporate professional work generally — such as corporate restructuring, the ascendance of legal departments, changing labor-management relations, and management by nonprofessionals — profoundly affect company physicians. The activities of non-physician managers, who are increasingly attuned to the legal and financial dimensions of physicians’ decisions, frequently diminish physicians’ discretion in diagnosis and treatment, employee testing, and information conveyed to employees. The formal corporate structure, legal pressures, and informal cultural dimensions of work lead company doctors to help serve managerial goals by managing disability cases, responding to regulation and the threat of lawsuits, burnishing employers’ public image, and setting corporate policy regarding employment and chemical hazards. Company doctors are found disproportionately in large manufacturing and service corporations, where they make important decisions about health hazards in society, as is clear, for example, from their role in Manville Corporation and firms that have used large amounts of asbestos.² Their work is intrinsically conflicted, particularly in profit-oriented corporations that are not in the business of providing professional services.

Physicians are the prototypical professional case, owing to their traditional independence, extensive training, power, and high status. But in fact, professionals typically have not been so “independent.” Social workers, nurses, and professors have always worked as salaried employees, often for large corporations; engineers have traditionally been employed in corporations, where they have encountered dilemmas in aerospace and the nuclear industry. Professionals ascend or decline over time and in relation to other groups under specific conditions of em-

² Company doctors are physicians who receive salaries from corporations to provide medical services to employees. For a discussion of physicians in Manville Corporation and firms that have used large amounts of asbestos, see generally Paul Brodeur, Outrageous Misconduct: The Asbestos Industry on Trial (1985).
ployment, professional socialization, and organizational pressures. However, the fact that employment is salaried does not itself say much about prestige and power. Even many of those who have been self-employed have been autonomous only in a trivial sense, since they have depended on powerful, wealthy clients in limited markets. Self-employment does not necessarily signify real autonomy, success, or power.

Over the past several decades, the law has dramatically altered the relationship of professionals to colleagues, clients, and the public. It shapes professionals’ judgment about what constitutes appropriate professional conduct in many areas, including medical screening, employee placement, chemical emissions, workers’ compensation, medical malpractice, and responsibility for costs of disease. Professionals follow news stories about litigation involving corporations and talk with others in their workplace and profession about the meaning and significance of court cases and statutory requirements. The ways in which they interpret the meaning of the law have important effects on their decision making. They cast social questions and moral quandaries as legal matters. The prospect of a massive lawsuit or a jury trial with a multimillion dollar award to the plaintiff often affects their work far more than one would expect from the slight probability of such a suit.

Research on the rise of professionals has emphasized their autonomy, specialized education, and privileged status. But early organizational analysis and research on professions showed little concern with corporate employment. Since the 1950s, however, more research has been done on corporate professionals. Some of it is case study literature on particular professional groups, such as engineers, lawyers, and scientists. Several major theories about professionals have addressed issues


4. See generally STARR, supra note 1.

5. See generally, e.g., EVERETT C. HUGHES, MEN AND THEIR WORK (1958); W. Richard Scott, Professionals in Bureaucracies: Areas of Conflict, in PROFESSIONALIZATION (Howard M. Vollmer & Donald L. Mills eds., 1966); Robert K. Merton, Bureaucratic Structure and Personality, 18 SOC. FORCES 560 (1940); see also generally FREIDSON, supra note 1 (discussing the rise of professionals).

6. For a discussion of scientists, see generally G. NIGEL GILBERT & MICHAEL MULKAY, OPENING PANDORA’S BOX: A SOCIOLOGICAL ANALYSIS OF SCIENTISTS’ DISCOURSE (1984); BARNEY G. GLASER, ORGANIZATIONAL SCIENTISTS: THEIR
of professional norms and autonomy, casting them in terms of the extent to which professionals have the power and ability to direct their own work.7 These theories have produced bold assertions about profession-


7. The bulk of literature on professionals is concerned with whether professionals are a powerful new class or whether professionals are becoming proletarianized or deprofessionalized. One set of analysts argues for the growing strength of professionals relative to other workers and corporate managers. Bell’s “postindustrial” theory maintains that salaried professionals, rather than becoming subordinate to their new employers, manage to gain control in their employing institutions and wield considerable influence within them. Moreover, professionals in the new postindustrial order wrest power from the previously dominant group: those who control capital. The growing influence of professionals stems from their valuable specialized knowledge. See generally DANIEL BELL, THE COMING OF POST-INDUSTRIAL SOCIETY (1973). Other related theorists, too, argue that professionals have ascended in relation to industrial capitalists. These include Galbraith, who portrays professionals as part of the powerful technocracy. See generally JOHN KENNETH GALBRAITH, THE NEW INDUSTRIAL STATE (1967). Steinfels sees growing social control by a “new class” of professionals. See generally PETER STEINFELS, THE NEO-CONSERVATIVES (1979). Freidson argues that although professionals have undergone increased bureaucratization of their work, they have not experienced “deskilling” similar to nineteenth-century industrial workers, instead often retaining high levels of both skill and autonomy. See generally ELIOT FREIDSON, PROFESSIONAL DOMINANCE: THE SOCIAL STRUCTURE OF MEDICAL CARE (1970). In contrast to these theories of professional ascendance, theories of professional decline emphasize the shift from professional self-employment to salaried employment and the resulting similarities between professionals and other workers as power and control over work is transferred from professionals to employers. Theorists of professional decline and “proletarianization” in-
als’ gaining or losing autonomy and control over their work, but usually without considering the ways in which corporate structures, internalized professional socialization, informal cultural dimensions of work, and the law have transformed professional work.

In the mid-1950s, William H. Whyte’s *The Organization Man* analyzed the changing values and work that accompanied expanding bureaucratization, and C. Wright Mills’s *White Collar* examined changing orientations to work among middle-level corporate employees. In the 1990s, “the company doctor” is a more appropriate metaphor for understanding professional and managerial work in large corporations, for it suggests the conflicting demands that corporate professionals experience in the globalizing corporate economy.

This Article examines the growing influence of the law on corporate professionals and ways in which their interpretation of the law affects their behavior. It then analyzes doctors’ perceptions of vulnerability to lawsuits and the significance of legal risk. While professionals in large corporations usually focus on how to comply with government regula-

tion and avoid corporate liability for hazards, they also know they could be sued individually for failing to protect employees and the public. This perceived threat of individual legal accountability not only influences professionals' conduct, but also reinforces professional standards in corporations. An analysis follows of lawyers' ambivalence about providing information to employees and the public, along with the ways in which they cooperate and clash with doctors over making information available. Next, this Article explores company physicians' approaches toward preventive health. Company doctors focus less on preventive health than on preventive law—especially practices designed to avoid company liability and reduce costs of compliance with government regulation. Finally, this Article considers some implications of this research for policy and for an understanding of corporate professional work in its legal and social context.

This study reveals powerful contradictory legal pressures on corporate professionals. Doctors point to the adverse effects of the legalization of their field, with attorneys and the law increasingly directing their work. However, litigation and regulation also have positive effects in requiring risk reduction, compensating individuals for harm, and providing incentives for corporate management to curtail hazards. In fact, the legal structure has been both beneficial and harmful for occupational medicine. Lawsuits are good to a point, beyond which they waste money on litigation that could be better spent on health programs. Moreover, it is not the legal requirements themselves that constrict corporate professionals most; rather, it is the ways in which corporate management has chosen to respond to legal and economic pressures that most constrain corporate professionals.

For the analysis of the social and legal dimensions of corporate professional work, this Article draws on interviews with 100 company physicians, scientists, and government and labor officials across the U.S., case law and statutes, and trade association data and field research. Although the words of corporate professionals infrequently appear in the scholarly literature, here interviews and field research are valuable for illuminating the social context of corporate professional work, including the significance of the legal and social environment from the perspectives of the social actors themselves.9 Such an analysis adds perspective to doctrinal analysis of the law by shedding light on the organizational

---

9. The Article refers to confidential interviews with informants who requested anonymity. See infra, Appendix.
and cultural context in which the laws have effect.\textsuperscript{10}

I. EFFECTS OF THE LAW ON CONCEPTIONS OF PROFESSIONAL BEHAVIOR

Laws relating to professional work have changed radically over the past forty years, notably in such areas as physicians' standard of care and workers' assumption of risk.\textsuperscript{11} The threat of lawsuits against companies and the growth of legal departments within corporations have had major effects on the work physicians do. Physicians are sensitive to the legal implications of medicine and the role of lawyers in complicating medical practice, at times to the detriment of employees' health.

Lawyers have risen in the corporate structure, and work in bigger and more heavily funded corporate legal departments. Lawyers have a major corporate role in interpreting the Americans with Disabilities Act (ADA),\textsuperscript{12} standards of the Occupational Safety and Health Administration (OSHA),\textsuperscript{13} and hiring and firing regulations. They help implement new statutes and internal personnel policies. Many company lawyers clarify state and federal statutes in different jurisdictions and handle medical-record information requests, grievances over benefits, and workers' compensation claims. They advise doctors on how to structure programs, and review contracts and benefit plans. They also become involved in lawsuits after individuals are injured or die. Corporate legal departments tend to subcontract litigation and all extraordinary events to outside attorneys and firms, leaving the internal staff to deal with routine legal matters.

Physicians in large corporations have extensive contact with lawyers who call them about pending suits or about what doctors should do in their practice. In-house counsel asks physicians to review specific cases and evaluate whether claimants have a case or not. Corporate attorneys advise doctors on how to testify and interact with the media or opposing attorneys in depositions. Some companies instruct physicians not to respond when outside lawyers contact them, advising them that all responses must come from the legal office. Lawyers argue that certain

\textsuperscript{10} See id. (discussing the study data and methods used in this Article).

\textsuperscript{11} See generally RAND E. ROSENBLATT ET AL., LAW AND THE AMERICAN HEALTH CARE SYSTEM (1997).


information should be provided, and certain tests be conducted, in order to avoid company liability. In many cases — as when it issues directives regarding handling records or diagnosing certain illnesses — a legal department will set policy for the medical department. In other cases, it will persuade, as when it tries to convince the medical department to provide information in ways that may reduce future employee claims.

Both the attorney and the doctor work for the company to protect the company’s interests. When asked about potential areas of conflict with the legal department, many company doctors said there really is no conflict because they run things past the legal department and do what the lawyers tell them to do. One long-time company physician said he did not need to run things by the legal department as much anymore; he already knew what they would say and therefore could do exactly what he expected they would tell him to do. Company doctors who testify on the company’s behalf sometimes give the sense that the lawyer is standing next to them as they do their job. Rather than clash with lawyers, physicians sometimes incorporate the legal defense into their work, experiencing little sense of conflict. One doctor employed by a major consumer products corporation described the closely affiliated goals of company physicians and lawyers and said that when lawyers advise physicians, their major concerns are “avoiding lawsuits, hefty fines for non-compliance, and bad publicity.” He said:

We work closely with company lawyers trying to anticipate what will be an issue rather than wait for somebody to file a suit. We’re all singing from the same hymnal; and that’s what I like to do. We can call up legal and say, “Look, I have a concern that this will pop up, and can you help me dress-rehearse this and prepare our case in advance.” Crisis management takes an inordinate amount of time once something has happened. You’re much better off if you can prevent it and reach an accommodation with the other person, so that’s why we choose to call legal.

A chemical company physician said:

There’s mutual respect between medical and legal. I assist attorneys in the company in medical-record review, toxic tort cases, and workers’ comp review. I give them straight medical information. They ought to know their case will not fly, and the sooner they learn, the better, even though they may not want to hear it. We also have a few Superfund hazardous waste sites
they are responsible for, and I've reviewed health risks for them on materials that might be at the site. They review medical publications that emanate from our department. We publish a health and environmental guide on a product and the lawyers look at it to make sure we won't say something that means someone will sue them later.

Sometimes it is difficult to sort out how much time doctors spend on legal issues because they deal with worker surveillance, placement exams, and regulatory matters—all of which have a strong legal component. In fact, so many medical matters are becoming legal matters that it is hard to think of an occupational health issue that does not have legal ramifications. As a telecommunications company physician said:

Virtually every decision is subject to review in court, which didn’t used to be the case. Issues used to be decided pretty much on a straightforward medical basis; today very few medical issues are straightforward. Almost all of them have legal overtones.

Some physicians expressed that they have almost constant contact with the legal department, which is many times bigger than their medical department. Physicians generally spend far more time on legal matters than they did decades ago. A corporate medical director of an oil company, for example, said that he usually spends four hours a day on medical issues with legal implications or actually meeting with lawyers, whereas he used to spend about an hour a month. Physicians employed by computer and telecommunications companies said:

I spend at least one to two hours a day consulting with lawyers or reviewing briefs and other legal documents. This firm has 100 times as many lawyers as doctors.

The medical people in a corporation even ten years ago might have spoken with a lawyer once a month on a very complex case. Today, virtually every day every physician in the company spends at least an hour and sometimes three or four hours with attorneys, because almost anything that comes along has legal ramifications.
A national labor official said:

The major occupation of occupational physicians is being involved in litigation, whether it is administrative or tort. They spend more time and money litigating than treating or doing research or anything else. It’s multiple testing, writing testimony, and keeping records for going to court. Most corporate physicians I know are very uncomfortable with this.

The amount of legal involvement increases dramatically when environmental and safety issues are made part of occupational medicine. Physicians increasingly have been drawn into litigating environmental health problems. In the asbestos industry, for example, many in-house and consulting occupational physicians advise companies on setting up procedures and exposure limits; and as the basic liability problem has shifted from manufacturers — primarily Manville — to companies that remove asbestos, they work with attorneys defending against suits. That growing arena involves translating issues of toxicology and epidemiology into terms that lawyers can use in defending lawsuits. An airline physician complained that adversarial legal cases threaten to overwhelm him:

The company has defined my role completely differently than I thought it would be. I hardly ever get a chance to just treat people who’ll get better, which is what I used to like about occupational medicine. Now everything adversarial that involves the medical department comes to my desk: workers’ compensation, contested cases, grievances, and lawsuits. Then I wind up dealing almost always with adversarial cases, where somebody is really angry no matter what I do. The administrative aspects and the adversarial-political aspects are wearing thin, and I’m tired of anger and criticism and lack of appreciation of the complexity and difficulty of what we do.

Despite the frequent doctor-lawyer cooperation as fellow professionals and corporate employees, medical and legal priorities may often clash. Physicians feel torn between what their own medical judgment leads them to favor and what the lawyers want them to do. Many times company doctors say they believe individuals should return to work but lawyers see a liability. Some public-health-trained physicians resist when lawyers call to say the doctor must provide employee files or de-
scribe risks to workers in specific ways. The medical department sometimes has been able to prevail in conflicts with company lawyers, but lawyers tend to be more aggressive in asserting how the company should act in internal disputes. Lawyers tend to be given precedence over physicians when they take a stand that doctors oppose, as physicians from oil and publishing companies explained:

Lawyers are viewed as saviors and protectors from threat; that’s a powerful position. Often they are perceived as the organization responsible for professional expertise in a situation of threat or attack, so that is a very powerful place to be.

The physician has to understand he’s merely an adviser to the company. The lawyer in charge of the case makes the legal decision how it should be handled and it’s a management decision which road they take. I never take it personally. It behooves the physician not to get too emotionally involved.

Clearly the legal department’s interpretation of observing regulations and laws will carry the day when a company that must observe those laws employs you. The legal counsel is essentially present to keep the company from getting in trouble, so a compromise or concession must be sought if the legal department feels a particular action or process that medical people want would legally endanger the company.

A national health and safety labor official said:

Litigation and liability has become such a major part of the operation of many companies that it indeed becomes a final word or a final screen for everything, which is unfortunate.

A physician for a bank stated: “We don’t have any conflict with the attorneys. They tend to be on our side.” But this same physician displayed on his office wall a framed quotation in calligraphy: “The first thing we do, let’s kill all the lawyers.” William Shakespeare’s Henry VI, Part II, Act 4, Scene 2.”

Doctors talk about how the fear of lawsuits against companies guides medicine in a defensive direction and distorts the practice of medicine in corporations. As a major oil company physician said:
A corporation spends a lot of money unnecessarily on preventive legal medical practice. Sometimes the lawyer doesn’t want the doctor to do something the doctor wants to do because it might show something the lawyer doesn’t want to show. Let’s say a former employee is suing the company for a bad back and the doctor thinks another test would be good to make sure that he doesn’t have something else, and the lawyer asks the doctor, “What if that test is abnormal; then what?”

Lawyers and medical malpractice carriers often seek to settle cases with the least amount of loss even when physicians protest that they have done nothing wrong. In certain situations, the company chooses not to fight employee claims because doing so would cost more than settling or would raise other issues that could harm the corporation, as this chemical company physician explained:

I mainly have conflict with our law department on settling. It’s painful to me to settle and give away the store when I want to dig in my heels and defend a case that the lawyers tell me is expensive and stupid to defend. But it’s crazy to go through this big ceremonial war to carry out my principles and still probably lose in front of a jury even though we’re right.

Many physicians in corporations say they dislike lawyers, objecting to what lawyers want doctors to do and describing the tension between them. Some physicians say lawyers tend to be trained in amorality — not seeing problems in moral terms, in stark contrast to doctors’ training and orientation. A metals company physician said:

The corporate legal profession influences outcomes by shading the truth. To be a successful lawyer, one characteristic you must have or acquire is amorality. It’s win-at-all-cost, which has nothing to do with justice. The lawyer’s foremost responsibility is to the company, and it’s fine if the employee happens to benefit from that. The doctor will favor the employees even if their needs conflict with the company. The inability to differentiate right from wrong morally goes totally against the grain of a physician and his upbringing, training, and relationship with people. Physicians with the best intentions in the world can be destroyed by the way the legal system deals with them. Boy, I’m dead if they hear this!: I dislike lawyers, and I blame them for a majority of our social and medical ills. But if the other side called me
Liability of Company Doctors

as their witness, it would create a problem and our lawyers would say, "That’s conflict of interest and you can’t do that.” I’ve never testified for the other side in my many years here.

This observation is both common and significant. Doctors may clash with attorneys for the company, but in contested cases, the “other side” usually consists of employees. Like this physician, doctors generally cooperate with company attorneys in defending cases, whatever their sentiment about the attorneys involved.

II. PERCEPTIONS OF VULNERABILITY TO SUITS AGAINST DOCTORS

Physicians in private practice, whether or not they are in occupational medicine, often complain that the high price of malpractice insurance and the threat of lawsuits by patients places an unfair burden on their practices. But in the case of company medicine, employees generally have been unable to sue company physicians, in part because they have been considered fellow servants or co-agents. In addition, workers’ compensation is the traditional and exclusive remedy of workers who get hurt; they generally cannot sue physicians who fail to diagnose diseases or to inform them of risks before they are injured.

Doctors generally have their employers’ backing when they are named in a suit. Their companies answer the complaint and defend them. Because companies carry insurance for doctors and have the support of a corporate legal department, physicians who work for them are less concerned about lawsuits and malpractice insurance expenses than physicians in private practice. As physicians from publishing, retail sales, and oil companies said:

My friends say, “What happens if you get sued?” and my response is, “If somebody wants to sue, fine, but that’s what they pay our lawyers for — to keep me and the other managers in this company out of jail.” I just refer outside lawyers to my lawyers and let them hassle it out. They talk to our workers’ comp people on workers’ comp cases, so I don’t get caught with that. They handle it lawyer-to-lawyer.

The company has a general liability policy. Every doctor knows

you can always be sued because you can’t stop lawyers from suing whomever they wish. It’s just that doctors know the company will defend you — one hopes (laughs) — as long as you aren’t grossly negligent in performing your duties for the company.

This is a very big company with very deep pockets and a lot of smart lawyers that work for them. They don’t want to sue me when they can sue the corporation. *When they look at the company, there’s no way they can see me.* The company says they will stand behind us if we use good judgment, so I don’t think about being sued very much, though we are constantly involved with the legal system. We evaluate people in workers’ comp cases, and it could always flip from normal workers’ comp into something where the person gets a lawyer and sues the company and sues me.

Many company doctors are further protected from patients’ lawsuits because they treat only minor injuries and illnesses. Much of what they do consists of giving physical exams rather than delivering primary care to people with serious diseases. They may diagnose health problems as part of the medical monitoring that government regulation requires, but they send people to private physicians for treatment rather than treat employees themselves. Thus they do not bear the same risks as private physicians. As a telecommunications company doctor said:

> There have been employee complaints of malpractice by our medical staff, but very few relative to the volume of clinical services. What we do is relatively low risk anyway: mostly evaluations and no surgery. Doctors in this corporate environment don’t feel the great malpractice issue.

Whereas professionals forty years ago could expect the law and their corporate employment to shield them from legal action, vulnerability to lawsuits is growing within corporations. Physicians and other company personnel have increasing liability for workplace hazards.¹⁵ Legislatures and courts have created exceptions to the exclusive-remedy provision of workers’ compensation under most state law. They have allowed tort actions against company physicians and employers in limited circum-

stances, such as for intentional torts or suits against employers and their doctors serving in a "dual capacity" as employer and provider of medical services, as well as third-party suits against manufacturers based on negligence and product liability.\textsuperscript{16} Company physicians have been sued by citizens from the community in third-party suits and by employees who have alleged that individual professionals intentionally put workers at risk, withheld information, or failed to warn people.

Company physicians increasingly find themselves in what must seem the worst of both worlds: they work in a corporate structure and need to be team players, but they can still be individually sued and even made criminally liable for their performance in a corporation. Many occupational physicians who seldom worried about liability in the past now fear being held personally liable for corporate decisions to which they only contributed.\textsuperscript{17} Doctors become more attentive if they think they are individually responsible, because employers may not necessarily stand behind them or continue to cover their malpractice insurance if problems arise. As a physician with a manufacturing corporation said:

\textsuperscript{16} Most states permit employers' intentional torts to fall outside the workers' compensation system's coverage through statutes and case law. Standards for satisfying the intentional tort exception vary among the states. \textit{See} 2 LARSON'S WORKERS' COMPENSATION § 68.13 at 13-3 to 13-11 (Desk ed. 1990 & Supp. 1993). \textit{See}, e.g., Millison v. E. I. duPont de Nemours & Co., 501 A.2d 505 (N.J. 1985). In \textit{Millison}, the New Jersey Supreme Court found for the employee plaintiff in a tort action concerning workplace asbestos hazards. \textit{See} id. at 518. The company physician had fraudulently concealed important health information and thereby contributed to employees' aggravated disease by failing to warn of the evidence of disease and further risks the employees faced. \textit{See} id. at 516. The court stated that fraud is not within the ordinary risks of employment. \textit{See} id. The court held that the New Jersey Workers' Compensation Act's exclusive-remedy provision does not bar plaintiff's cause of action for aggravation of the diseases resulting from defendants' fraudulent concealment of already-discovered disabilities. \textit{See} id. at 518; N.J. STAT. ANN. § 34:15-8 (West 1998). The court also held that the employees were limited to workers' compensation benefits for any initial occupational disease disabilities related to hazards of their employment. \textit{See} \textit{Millison}, 501 A.2d at 514.

\textsuperscript{17} Physicians worry about being held personally liable for their decisions in corporations even though their chance of such a suit is small. Professionals in large companies with occupational health programs are particularly concerned because they generally know more about potential liability than managers in smaller companies, with minimal or no legal teams to advise them; moreover, plaintiffs' lawyers consider their employers to be especially attractive as defendants in lawsuits because the awards are likely to be larger from major corporations.
You can be sued in a corporation and it can cost the corporation millions, though the corporation generally covers and insures you. But a physician in a corporation could be sued and even end up in jail for serious malpractice of occupational medicine, such as a misdiagnosis of asbestosis during medical surveillance or another medical mistake that would require gross negligence. These things happen where physicians found something and didn’t inform the patient. The condition progressed and led to more problems. Not informing was the mistake.

A factor that intensifies doctors’ concern is their belief that a manager or company professional such as a doctor is more likely to be sent to jail than a CEO. As a physician with a major computer company said:

Most of the time employers respond to hazards because they genuinely care or they’re afraid of lawsuits. With criminal lawsuits in the last few years, a lot of employers have had their antennae out. When managers hear they are individually responsible for hazards, their ears perk up, like my dog. That’s what the law says. After all, it’s not the CEO who will go to jail; it’s you, the manager. A CEO might go to jail, depending on the corporation and how big the issue is and what the evidence shows. But the immediate management is much more likely to take it in the neck, and they won’t be able to duck. The Eichmann defense, “I was following orders,” doesn’t work well anymore. People are much more aware of this today than they were just a few years ago. And they should be! It’s real! Someone will catch it one of these days.

Physicians also fear that management may deliberately leave judgment calls to physicians, in the belief that physicians rather than the employer may be liable if their decision turns out badly.

Prosecutors have pursued companies with criminal charges on behalf of communities, as they did with the Bhopal disaster in India.¹⁸ Professionals perceive a growing threat of criminal charges against individual

executives; in the *Chicago Magnet Wire* case,19 five corporate officers were charged with aggravated battery and reckless conduct for causing injury to forty-two employees by failing to provide necessary safety precautions.20 A telecommunications company physician later said:

The *Chicago Magnet Wire* case was a totally different kettle of fish because it was intentional. The company was liable, but those company officers were, in fact, the same as the company when it came to criminal liability. You can't commit murder and say, "The company made me do it."

Physicians may succeed, however, by saying, "The company made me do it. I was afraid of losing my job, and this was a company policy." Prosecutors have focused on finding out who set the policy. In a criminal case, if it is the company president, then the company president would ordinarily be held liable. But in civil cases, physicians are more likely to be held liable.21

Corporate professionals fear jury trials, in which the standard of care — what a reasonable person should have known — is determined in the courtroom. Doctors will serve as expert witnesses and medical associa-

20. See id. at 963. The court held that OSHA does not preempt the State of Illinois from prosecuting the corporation and five of its officers for conduct that OSHA standards regulate, despite the approval of OSHA officials. See id. at 965-66.
21. See PLATER ET AL., supra note 15, at 869-904; WILLBORN ET AL., supra note 14, at 985-97; Bixby, supra note 18, at 423; see also United States v. Northeastern Pharm. & Chem. Co., Inc., 810 F.2d 726 (8th Cir. 1986). The Court of Appeals held that any corporate officer or employee who personally participates in conduct that violates the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675 (1994 & Supp. II 1996), or contributes to a substantial endangerment to the environment in violation of the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. §§ 6901-6992k (1994 & Supp. II 1996), may be held individually liable for that violation. See id. at 745-46. The court held that a corporate vice president for the Northeastern Pharmaceutical & Chemical Company (Nepacco) was strictly liable for arranging for the disposal of hazardous substances under CERCLA § 107(a)(3) and that the company president was individually liable for contributing to an imminent and substantial endangerment to health and the environment in violation of RCRA. See id. A plant supervisor for Nepacco had dumped drums of toxic chemicals into a trench on a farm near the plant, with the permission of the vice president. See id. at 730. The court rejected the defendant vice president's argument that he acted on behalf of the corporation and could not be held individually liable without piercing the corporate veil. See id. at 744.
tions will be consulted when juries and judges later identify the appropriate standard of care or interpret statutes. Corporate executives, professionals, and lawyers worry about shifting community standards for what a reasonably prudent doctor would do. The public may increasingly believe that corporate professionals are individually responsible for decisions in their corporations, and public opinion influences the outcome of jury trials, with potentially massive awards. Some physicians say they try to imagine what a jury might think in five or even twenty years, anticipating the future standard by which they might be judged.

Environmental groups and individuals outside the corporation may sue company physicians for environmental hazards. One oil company physician was named in a citizens’ lawsuit over the public health effects of chemical emissions from his company’s refinery fumes drifting into the community. He said:

I have been sued personally for, quote, “environmental crimes” of the company against the community in a “clinical ecology” lawsuit. That’s the latest vehicle for suits brought against us personally. Our outside lawyers advise me how to testify. The plaintiff typically sues the company, but an increasing trend for regulatory suits and outside plaintiffs is to name responsible individuals in the company. People seem to want to accept that any chemical exposure, no matter how minor, can cause serious illness. You never know what a jury will believe and these things drag on a long time, so it’s distressing.

Furthermore, physicians who want to be perceived as team players are loathe to be associated with trouble and sued from outside the corporation. This can lead them to practice “defensive medicine.” A major oil company physician described:

Health and medical issues are increasingly high-liability problems. When one is responsible for a large administrative network, as I am, the courts assume that you knew, or should have known, what was going on. But that’s not always possible. How do you find out about all the health and environmental practices in a vast organization, with complex administration? You can’t, but you’re held responsible. It certainly makes our medical practices more defensive. It goes beyond being careful and thorough.
Some lawsuits have been filed for breaches of medical confidentiality, in cases where physicians gave management data that employees considered private, or withheld important medical information. A national steelworkers union official said:

An airline company doctor who did fitness-for-work exams discovered a pilot had cancer but never told him. It took several months for this to be detected. The pilot sued him, and the jury found no doctor-patient relationship. In cases where we have to go after a company doctor to stop a questionable practice, we tell the doctor, "Look, you may think no doctor-patient relationship exists here, but that's for a jury to decide if it comes to that; and I'm happy to oblige if you want to take your chances with that kind of trial."

Statutes under which individual doctors may be held liable are becoming more common. For example, the California Labor Code specifies a criminal penalty for company retaliation against employees who pursue their rights under workers' compensation. A major computer company physician said:

One of these days a California case on that [California Labor Code] Section 132a statute will send a bigger tremor through the state than the Loma Prieta earthquake.

The California Corporate Criminal Liability Act is sometimes nicknamed the "be a manager, go to jail" act. This Act provides for significant fines (up to one million dollars for a corporation) and even the imprisonment of managers found to be out of compliance with the law. It criminalizes the conduct of managers who know of a serious concealed danger associated with a business practice or product but who knowingly fail to notify the state occupational health agency and affected employees within fifteen days, or immediately if an imminent risk of great bodily harm or death exists. Under the Act, managers "have knowledge" if they possess facts that would lead a reasonable person to believe a danger exists. A government official familiar with compa-

nies' occupational health programs and the statute said:

The Corporate Criminal Liability Act was passed at the same time as the new Injury and Illness Prevention Program regulations, so everybody thinks Cal-OSHA will put you in jail if you don't have an Injury and Illness Prevention Program. It's a big mess, but at the same time it's another incentive for behavior. It's more than a regulatory incentive — it's a criminal incentive.

Criminal penalties also apply under the Occupational Safety and Health Act\textsuperscript{25} and the Toxic Substances Control Act (TSCA)\textsuperscript{26}. Corporations must designate certain corporate officials who are individually responsible for TSCA-related decisions and could be held criminally liable and go to jail if the company does not report.\textsuperscript{27} A services company physician said:

In every corporation you have to say who the person responsible for this [TSCA] area is, and it can't be some low-lying official like a second lieutenant; it has to be like a general, and that person must have that responsibility. The first time I went to the company fifteen years ago and met the medical director's boss, the first thing he said was, "Yes, I'm the guy who goes to jail if you violate the law, and I don't want to go to jail." The fact that you tell a corporation to designate ahead of time who goes to jail if you violate the law makes the designated person a lot more cognizant about what's going on.

The Americans with Disabilities Act (ADA)\textsuperscript{28} supports professional

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{25} See Occupational Safety and Health Act, \textsuperscript{29} U.S.C. § 666(e) (1994 & Supp. II 1996). This law states that any employer who willfully violates any standard, rule, or order promulgated pursuant to the OSHA Act § 6 (or any regulations prescribed pursuant to the OSHA Act), if that violation caused death to any employee, shall be imprisoned for not more than six months or be fined — raised to $500,000 for an organization and $250,000 for an individual after passage of the Comprehensive Crime Control Act in 1984 (or both a fine and imprisonment). See id.; see also \textit{CAL. CODE REGS. tit. 8, §§ 10406, 10447} (discussing, in order, (1) pleadings, and (2) pre-application proceedings).
\item \textsuperscript{26} See 15 \textsuperscript{29} U.S.C. §§ 2601-2692 (1994 & Supp. III 1997).
\item \textsuperscript{27} See id. § 2615. For a conviction of knowingly or willfully violating the TSCA, the statute calls for a fine of not more than $25,000 for each day of the violation, or imprisonment for one year, or both. See id.
\item \textsuperscript{28} See 42 \textsuperscript{29} U.S.C. §§ 12101-12213 (1994 & Supp. II 1996).
\end{itemize}
\end{footnotesize}
standards and professional judgment by increasing the scrutiny of doctors' decisions regarding who is fit for employment. Before the ADA, a physician's decision about an individual's employability or capacity to do a specific job was a professional opinion; the employer could accept it, seek another physician's opinion, or do something else. Now, under the ADA, any employer who places an employee, or does not place an applicant for employment for a health reason, must be able to defend that decision in a court of law. Employees can sue employers whose physicians say they are not fit to work at a particular job. Further, companies can be forced to pay punitive and compensatory damages of up to $300,000 for each count of unlawful, intentional discrimination. Insurance for that kind of liability then becomes more expensive or more difficult to obtain.

Physicians trained in occupational medicine are less vulnerable to litigation because they generally know more about what to look for in evaluating an individual's abilities. Companies that realize this are more likely to solicit advice from trained occupational physicians. However, physicians with minimal training in occupational medicine still deliver most medical services to employees. To contain costs, these services are increasingly provided by contract physicians who are technically not co-employees and therefore are liable to suit without that corporate protection. Some of these private physicians are now refusing to conduct exams for companies because they want to avoid subjecting themselves to this kind of liability. A physician with a major oil corporation said:

How long will the local doctor call himself the corporate medical director now with the ADA? He won't like that title the minute a lawyer slaps a lawsuit on him, or the minute a company questions him and says we might have trouble with this decision.

Some corporations buy an insurance umbrella that covers not only the full-time but also the part-time physicians and outside consultants who act on behalf of the corporation. More often, corporations pay only in-

29. See Civil Rights Act of 1991, 42 U.S.C. § 1981A (1994) (allowing for the recovery of punitive and compensatory damages); see also id. § 1981A(b)(3) (setting a cap on compensatory and punitive damages). Under the statute, damages are capped depending on the number of persons employed by a company. For example, for a company employing 500 or more individuals, damages are capped at $300,000; for a company employing only 15 to 100 individuals, damages are capped at $50,000. See id.
house physicians' malpractice insurance costs.

The perceived threat of individual legal accountability strengthens physicians' leverage with management. Doctors can point out that management could be liable if it could be shown that they knew about a problem and did nothing to solve it, or that they disclosed confidential information. A major oil company physician explained how he has talked to corporate managers:

I tell them "I have a specific job to protect this part of the company that's been given to me. I am told to do things that are medically appropriate and to keep the information confidential. If you don't like that, then you have to take it up with the person who set the system up this way. The company gives me this piece of the job to do, and you'll get into a lot of trouble if I don't do my job." I tell them, "If I release this confidential record to you and someone complains, then I'll go to jail and you'll go to jail too and so will your boss. So if you don't want your boss to go to jail, just listen to what I say and you won't keep asking for records because I won't give them to you."

The impact of the law on physicians' decisions can be quite different from what one might expect, even when "the law" is codified, court decisions seem clear, and legislation appears straightforward. A narrow and local but well-publicized legal decision may spread fear through entire industries. For example, in Chicago Magnet Wire, where corporate officials were personally charged with the poisoning of workers, the court ruling in fact had limited scope, but the case cast an ominous shadow over corporate practices, resulting in new corporate policies. Conversely, OSHA regulations requiring that lung function tests be performed or records be kept on the workdays lost due to occupational disease may have little actual effect unless vigorous government enforcement makes corporate employees believe the regulations are important.

31. See id. at 963. Similarly, early rulings on possible corporate liability for fetal damage due to employee exposure to dioxin and lead have been circumscribed but nevertheless have had a definite, broad impact, leading to extensive corporate policies of excluding fertile women from jobs with exposure to toxic chemicals. See generally, e.g., Int'l Union, United Auto., Aerospace, & Agric. Implement Workers of Am., UAW v. Johnson Controls, Inc., 499 U.S. 187 (1991).
III. Threats of Litigation and Regulation of Health Hazards

Conservative analysts bemoan litigiousness in our society, tracing social ills to greedy claimants, zealous lawmakers, and rapacious lawyers. They argue that these pressures have drained corporate vitality and skewed corporate work away from its proper goals. Corporations and insurance companies have paid many millions of dollars in occupational and environmental health claims over the past twenty years. The business press also condemns what it describes as an epidemic of tort litigation. Similarly, physicians of all kinds complain that too much time and money is spent on lawyers and others who find fault with the conduct of employers and doctors, as did these airline and computer company physicians:

Employees often sue the company for job stress if there’s an aircraft accident or an occupational injury, or even a non-occupational injury that affects fitness for work. If they sprained an ankle slipping on the water in the kitchen, they come over here, get treated, and the next thing I know they have a lawyer for a seemingly minor problem, especially if they think that they might get terminated for some other reason, like a language or cultural barrier.

Everything in the law is somebody’s fault: It’s somebody’s fault if I get sick or if I work with asbestos and get lung cancer. But if you smoke cigarettes and work with asbestos, you may be ten times more at risk for lung cancer. A technological society has risks of illness that it continues to be willing to have, by default or by informed decision. All of us deal with what’s acceptable risk every day. The law has not necessarily caught up with that.

A physician with a major bank complained about a huge monetary

award to an employee with lung cancer after a jury found that another physician in the company had failed to diagnose the man’s condition adequately when he came to the medical department complaining of chest pain. He stated:

The court awarded him seven million dollars. They accused us of not doing an adequate exam. The court was unreasonable, but there was nothing we could do. The man should feel lucky he’s still alive.

Despite doctors’ complaints, government regulation and — even more — the threat of litigation have created powerful pressures on employers to reduce health hazards.

A. Government Regulation

Occupational health changed because of the OSHA Act, along with the ensuing regulations and litigation. Thirty years ago, before OSHA, the occupational medicine field was smaller and much less active. Petitions and lawsuits that public interest groups brought gave rise to OSHA health standards. Legislators who responded to the pressures of the time also changed the widespread perceptions of occupational and environmental problems. In some cases lawyers were the driving force. The effects of OSHA are an example of laws empowering professionals to do what they want to do. A physician who worked in a large metals company said:

Those of us who were laboring in the vineyard welcomed OSHA, because it brought recognition to the importance of what we were doing. Some said the OSHA acronym meant “Our Savior Has Arrived.” Things have improved immeasurably in the last forty years that I’ve been involved in occupational medicine. Even though the OSHA program is pilloried and has had difficulties, it has been a major influence in improving workplace health protection and the recognition of hazards. Now there’s no place to hide from hazards in company operations. The awareness is way up with the right-to-know OSHA rules

33. For a discussion of the history of OSHA and the role attorneys had in its development, see generally NICHOLAS A. ASHFORD, CRISIS IN THE WORKPLACE: OCCUPATIONAL DISEASE AND INJURY (1976); DAVID P. McCAFFREY, OSHA AND THE POLITICS OF HEALTH REGULATION (1982).
and the understanding that working people now get, especially through their unions. With the right to know, people insist on knowing what the hazards are.

A national labor official with the steelworkers’ union said:

Companies had certain responsibilities after OSHA came along, and to that degree, their safety and health people came out from underneath the bushel. Employers had to listen to them.

Many companies developed a more lax approach to compliance as deregulation in many ways succeeded and OSHA enforcement declined in the 1980s. The incentive for employers to pay attention to health issues lessens when regulatory agencies like OSHA generally reduce their regulatory activity. The need for doctors or hygienists or safety engineers declines along with it.34 When they experience pressures to downsize, some companies replace medical departments with contracting services. An aerospace company physician said:

OSHA enforcement certainly isn’t the hot button that it was back when OSHA first came into place. Some companies that in desperation went out and hired staff now feel more comfortable with what the problems are and how to control them.

Because the cost of inspecting many small companies is great, enforcement of occupational health and environmental laws is less of a threat to them and they have fewer incentives to invest in safety measures. A newspaper company physician said:

In some cases legislation was good because companies weren’t investing in engineering controls without OSHA and EPA. Somebody had to tell them to do it. Regulators spend more time with big companies, but ninety-five percent of the people work for small companies, where regulators don’t even go unless they get a complaint. Small companies have consultants who probably never visit their premises, or they may not even contract out

34. A factor that in some cases compensates for cutbacks in the number of enforcement officers is that civil penalties in federal OSHA and some states (such as Cal-OSHA) have increased. These more significant fines make some employers more attentive to the threat of enforcement, even though their chance of being inspected remains small.
They hope the regulators won’t fine them for their practices, and the employees don’t get protected.

OSHA requires regular medical testing of employees who are exposed to one of about twenty chemicals or who are involved in emergency response, but company physicians do not always conduct those tests. Although corporations are supposed to have doctors on staff or on contract, many do not. OSHA enforcement varies between regional offices, but in general not enough people and resources are available for inspections and inspectors often examine only a small part of a given workplace. A high-level OSHA official said:

OSHA has moved very slowly with health standards over the years. We’ve never bounded forward in occupational medicine. The agency has had to go the long way around in setting standards in the first place. It’s a slow and painful process. Nevertheless, we’ve done a great deal by osmosis, because we have a general duty clause, which states that the employer must provide a safe workplace; and companies who appreciate the need to run a safe and healthful workplace are aware of OSHA and the need to employ appropriate qualified physicians. The word has gotten around that OSHA’s likely to come in and fine you if you don’t do the right thing, and fines have gone up dramatically: what used to be a $7,000 fine can now be a $70,000 fine. Companies have learned that they can be in big financial trouble if they don’t do what they are supposed to do. Still, the government’s general philosophy largely dictates whether companies think they need the expense of physicians when the laws are so few and far between and will be fewer in the future. Companies say “Let’s just have a contract doctor in an HMO who knows something about occupational medicine and use him when we need his services. We don’t need to employ somebody permanently.”

Occupational medicine benefits from having the threat of OSHA in a company’s backyard. Many doctors have a positive view of OSHA, in part because it helps give them their jobs and preserves their role. Occupational medicine tends to expand when regulation expands. In the textile industry, for example, the cotton dust standard required that

35. If OSHA were reformed to include generic medical surveillance and environmental monitoring standards, for example, that would be an impetus for hiring more doctors.
companies maintain medical surveillance conducted by a doctor or an industrial hygienist, and this increased the number of staff physicians hired to deal with it.\textsuperscript{36} Doctors in corporations recognize that new regulations can help them promote corporate health programs. However, doctors or unions cannot rely on the threat of regulation if it is toothless. A national AFL-CIO official stated:

Requirements of the last decade have greatly expanded resources in the environmental protection area, whereas programs and people are dying in occupational health, with no impetus for putting money or people into these programs. We hope OSHA law and regulations will change to bring about the same kind of developments in safety and health. If we pass the OSHA Reform Bill and put in place a medical surveillance standard requiring an overall comprehensive safety and health program, companies will need somebody there in-house to figure out what the program is and oversee it.

Despite the limitations of OSHA regulation, many employers give greater attention to occupational health than they did twenty years ago, because more OSHA rules now have testing requirements and medical provisions requiring company compliance. Doctors who once did only a few types of examinations now do many more, partly in response to new regulations.

\textbf{B. Effects of Litigation}

Although lawsuits do not serve the same function as regulation, liability is a deterrent to unsafe conditions. OSHA regulations require employers to provide occupational health services to employees, and therefore give company doctors a job in medical monitoring. Regulation boosts company medicine in ways that lawsuits do not because companies are shielded almost completely from employee lawsuits for occupational disease, and because employers facing a third-party lawsuit can always hire outside medical experts rather than use company doctors to testify in litigation. A computer company physician said:

Companies do things that they have to do that aren't optional, like regulations. You have to do asbestos or lead testing if you work with asbestos or have lead levels that trigger OSHA re-

quirements. The same is true for people working with a host of other hazardous chemicals. If it costs the company money, that's too bad. It's a cost of doing business. People will regulate their exposure if the government tells them to, or if they must do it to avoid getting sued. A properly designed regulation is more effective and costs less than the threat of lawsuits.

Nonetheless, the threat of litigation has had some of the same effects as regulation. It often is effective, for example, in convincing companies to curtail hazardous conditions. Cutbacks in government occupational health rulemaking and enforcement in the 1980s and early 1990s reduced the incentive for companies to do medical monitoring and incur preventive health expenses. In addition, workers' compensation generally has not forced employers to clean up hazards, aside from notorious cases like asbestos, even though preventing illness has been a stated goal of the compensation system. Under these conditions, the threat of third-party lawsuits, or lawsuits for intentional misconduct, now serves some of the same functions as regulation did in determining what corporations will do to protect their interests. Litigation has restrained excessive short-term profit-seeking at the expense of preventive health programs. The specter of another asbestos debacle and jury trials in which companies can be held liable for health effects — with attendant adverse public opinion — works as a deterrent. Fear of lawsuits has led corporations to put more money into health and safety than they otherwise would have. As a doctor with a major computer company said:

We've been pro-active when we have a company product where a large number of people might be exposed. We assess the literature and decide whether it's reasonable or not. We set up an internal standard that's more stringent than OSHA, just because we know OSHA will be a long time getting around to it, and we know that we can be faulted down the line because following the standards is not a defense. Most people in the company and the attorneys certainly recognize that we have to do what we know is right if we know the standard is not right.

A lawyer who specializes in company health hazards said:

Industry's standard for labeling is stricter than OSHA's, because companies don't want to be sued.
Lawsuits for damage from toxic chemicals can be large, multimillion-dollar cases. A physician who has provided occupational health services for many companies said:

Environmental and occupational medical litigation is a generally positive force toward health and safety. The win rate against companies is pretty high in occupational disease. Toxic tort cancer cases resulting from benzene and other substances can be settled in the millions. Financial incentives are high. Those lawyers know how to pick their cases. You don’t see them giving up occupational or environmental law because it’s running out of money.

Employers are concerned about heavy litigation costs and adverse publicity from major chemical spills or disaster contamination of the sort Union Carbide had in Bhopal. Many third-party lawsuits have been filed against equipment manufacturers whose machines have injured workers. Such suits have made manufacturers more reluctant to rush to market with products before considering their potentially harmful health effects on workers. A physician who directs an occupational medicine clinic and a manufacturing company physician said:

The toxic tort drives a lot of what goes into occupational and environmental health today. Liability often drives the whole thing. I’m not sure that’s helped a lot, but it’s been good to have more demonstrations that you need to have careful corporate health responsibility. Personal injury and toxic torts have been extended and asbestos lawsuits have frightened people. The belief that management can look past health issues and they will just go away, just doesn’t exist anymore. The threat of lawsuits has led corporations to be more concerned about health in the workplace than they were.

The medical department may cost something to the company, but it is there to protect the employee. It’s just like the Pinto that blew up — look how much it eventually cost the company to cut corners.

In-house medical services can save companies money from workers’ compensation awards or lawsuits, whereas cutting them back may add to

37. See generally KURZMAN, supra note 18.
their expenses. Companies that once tried to save money by hiring comparatively untrained contract physicians have sometimes paid heavily for misdiagnosed illnesses and other mistakes. On the other hand, having a medical department within the company also creates fears of litigation among managers, because any health facility will make mistakes. Employers worry about the possibility of a malpractice settlement that exceeds their insurance coverage limits and cuts into corporate profits. A banking company physician and a physician who has provided occupational health services to many companies said:

The legal element can have an inhibiting influence on occupational medicine. Given the litigiousness of individuals and society in general, an adverse legal experience — even simply a nuisance suit — can easily discourage corporate management from having an occupational-medicine entity on premises, especially in a setting like this bank where it's not mandatory, as it is in a chemical or oil company like Mobil or Exxon.

What little medical activity went on in companies started to decline out of the legal fear of getting too close to health-care.

One way employers deal with this fear of suits stemming from their in-house medical staff is by spreading the risk. For example, a corporation may ask occupational medical researchers from a university to join projects and work on tests. The university then shares responsibility for any legal problems that may occur.

The legal structure has been both beneficial and harmful for occupational medicine. Lawsuits are good up to a point, beyond which they waste money that could go instead to health programs. Asbestos litigation, for example, was beneficial in uncovering hazards and company misconduct in the early cases. As the litigation spread, it hastened the drastic reduction in use of asbestos and other toxins. But then the role of the lawyers began to change: less time was spent working methodically to uncover hazards and more time processing claims and making money without unearthing much new information.

Tort litigation has been unsuccessful in preventing the occurrence of occupational disease in general. It is strictly reactive, which is part of

38. See generally BRODEUR, supra note 2.
39. In addition, corporate concern with litigation can cause employers and company physicians to avoid preventive measures. When companies are in the
the dilemma in which physicians are caught. It sends a message — like a ripple effect — to corporate officials: “You’d better watch out to avoid another slew of lawsuits like those against Manville.” However, it does not necessarily send that message effectively, and it is no substitute for prevention through a public-health approach.

C. Public Concern About Occupational and Environmental Health

Public opinion may help create statutes and regulations, but public opinion alone will not necessarily move employers to act. Nonetheless, changing public opinion affects workplace health and the climate in which physicians carry out their work — particularly the prevailing corporate attitudes toward risk, access to medical information, and responsibility for chemical hazards. Information from newspapers and news broadcasts contributes to public concern about health hazards and indirectly to company medical programs.40 A major airline physician said:

Airline safety made big news in the 1980s in media coverage and in Congress, and some speculated that financial difficulties in the airline industry were compromising maintenance and the health of pilots and flight attendants was not monitored appropriately. Many corporate officers decided reestablishing the mode of trying to defend themselves, company attorneys and managers fear that by adopting additional safeguards, they admit that they failed to do things properly in the past.

40. The media certainly have caused greater public recognition of workplace hazards and occupational medicine in the past twenty years, through published articles and news reports on high-profile episodes such as Bhopal, asbestos, and lead in buildings and the water supply. Media coverage of toxic chemical hazards has publicized the need for corporate and government responsibility on environmental issues. For example, newspapers and television in the 1980s and 1990s covered hazards in U.S. Department of Energy facilities and in maquiladoras in Mexico, children born without brains in Brownsville, Superfund sites around the country, Chernobyl, and leukemia from groundwater contamination in Woburn, Massachusetts. These cases have intensified corporate responses to toxics and built occupational medicine generally. For a discussion of media coverage of workplace and environmental hazards, see generally PHIL BROWN & EDWIN J. MIDDELSN, NO SAFE PLACE: TOXIC WASTE, LEUKEMIA, AND COMMUNITY ACTION (1990); STEPHEN ROBERT COUCH & J. STEPHEN KROLL-SMITH, COMMUNITIES AT RISK: COLLECTIVE RESPONSES TO TECHNOLOGICAL HAZARDS (1991); JONATHAN HARR, A CIVIL ACTION (1995).
medical department would be worthwhile so they could better monitor employees to determine if they were physically fit.

The public's environmental concerns and expectations for safe conditions generally have intensified since the 1970s and interest in environmental issues continues to be strong.\footnote{The right-to-know campaign that swept the country years ago, leading to the implementation of the OSHA hazard communication standard and other community right-to-know laws, also boosted concern with chemical hazards. Greater awareness coming from media and education leads people to pressure for better medical services. Increased information has fostered grassroots environmental organizations and facilitated labor educational efforts as well. States vary widely in their public-opinion environment and rules.} Concern is generally greater for environmental hazards than for occupational hazards, and the impact of the environmental movement has been considerably larger than the impact of the occupational health movement. Environmental laws have also had more effect on business than workplace health laws. The Environmental Protection Agency (EPA), for example, is far stronger than OSHA and its penalties are higher. As a physician in the chemical industry said:

OSHA is still an extremely weak sister to EPA. Occupational medicine is a profession in search of a law; we don't have an effective law.

Environmental hazards such as water and air pollution affect large numbers of people, thereby creating a broader base for political action than occupational health can attract. Media coverage is also greater for environmental health, which is one reason the public and corporate management are less concerned about workplace health. A major oil company physician said:

Public opinion has done very little because the public doesn't care about occupational illness and what goes on in the plant as long as it doesn't get out of the plant. They care about environmental stuff. It's very difficult to get attention paid to occupational issues. That's a big problem for the field.

Public opinion nevertheless has helped legitimate the role of occupational physicians within companies and society. It has helped corporate management understand more clearly what the issues are — as the pub-
Liability of Company Doctors

A physician employed by a large computer corporation said:

The factory used to be that place remote from the community you didn’t have to worry about. Today the public views the factory as part of the community; they realize that the risks extend beyond the factory boundaries. That’s engendered a big change in the way the media, courts, and prosecutors look at it. It’s sent a message to executives that they have to be responsible.

Corporate physicians and managers are public citizens and professionals as well as employees, and as such are affected by public attitudes about disease risks and the allocation of responsibility to pay for health damage. A major chemical company physician reported:

There are managers in my chemical company who are absolutely convinced on a personal level that toxic chemicals cause cancer in their families. I talk to people at lunch and I’m amazed at it all the time. They compartmentalize their lives; they can work for a chemical company, but on a personal level, they are very fearful of so-called toxic chemicals for their families and they run around getting tests done all the time and putting detectors in their homes.

However, it would be easy to overstate corporate concern with environmental hazards by quoting a few executives in companies with known risks or recent major litigation. A chemical company physician stated:

Executives may read the New York Times, but they are not interested in health and environmental issues. They are interested in having people in the corporation handle that for them so they can run the business. They might take an interest if it’s not being handled well, if it starts to affect their ability to produce and sell chemicals.

Jury trials are an obvious reflection of public opinion. Juries have held manufacturers and their insurers liable for health hazards. Employers have complained that the tort system is out of control and must be reined in. They therefore have supported tort reform, such as restricting third-party liability, suits against product manufacturers for effects of
inherently dangerous products, punitive damages, and other jury awards. Jurors have become tougher on plaintiffs in part because of the millions of dollars corporations and their insurers have spent to persuade the public that a lawsuit crisis exists. They are more likely to give lower and fewer awards to plaintiffs if they think a lawsuit crisis exists. Tort reform contributes to toxic hazards in companies, however, if its success in reducing jury awards and limiting company liability leads employers to take fewer preventive measures.

IV. AMBIVALENCE FROM LAWYERS ABOUT PROVIDING INFORMATION

Due to threats of liability, lawyers sometimes find themselves in conflict with doctors over whether to release health information. At other times — most notably on questions of labeling hazardous substances — litigation concerns lead lawyers to align themselves with company doctors.

Company lawyers are reluctant to have doctors disclose information about health hazards that could alarm people or be used against the company. Physicians in many corporations complain that lawyers do not want them to say anything about potential hazards, because that would suggest that the company knew of problems but was not doing enough to solve them. Overall, increasing sensitivity to potential liability increases corporate pressure on professionals to restrict employee and public access to data. Lawyers, managers, and public relations people pressure physicians not to provide information that could increase their company's chances of being held liable for damage to workers or the public. Company professionals have constraints on publishing and speaking, conducting studies of suspected exposure hazards, and drawing attention to problematic working conditions. 42 Lawyers set up screening procedures out of concern over how professional staff members may use the company's name. Company lawyers oppose doing studies or communicating possible health effects to workers and the public because they might be held responsible for knowing but failing to do enough. They become particularly concerned when company studies involve notifying workers, government, or the media. One physician who conducted research and set up a cancer registry for his chemical company said:

42. See, e.g., SHEILA JASANOFF, SCIENCE AT THE BAR: LAW, SCIENCE, AND TECHNOLOGY IN AMERICA 114-37 (1995); SASSOWER, supra note 1, 76-99.
Companies run the risk of incriminating themselves and generating lawsuits when they do studies, no question about that. One time I was concerned when I got word that a lawyer didn’t like the idea of our gathering all these data. He said, “You expose yourself to problems when you gather data.” Lawyers would just like to burn whatever data you get — whenever you get information. Of course I get disturbed by that, but I can understand their point of view, because someone can just find a rather innocent little piece of paper somewhere that an opposing lawyer could make look devastating in some way in a trial. That’s the way things go in the courtroom.

A services company physician said:

I was asked to give a talk to a trucking industry group on workers’ compensation, and one question afterwards revolved around wearing fat lifting belts that protect your back. The questioner said his competitors all used them, and his lawyer said, “Don’t use them because using them admits you have a problem.” So I said, “Do you not give people hard hats in an area where you need a hard hat because it admits something might fall on your head? Your lawyer gave you that level of advice.” But that’s typical of some lawyers’ advice: “Don’t do anything. You’ll admit everything if you say anything. So don’t say anything to anybody.”

In a major oil company, company doctors and scientists were refused permission to talk to the public about company health risks. A company physician said:

We went to management and said “This is why we need to say the following kinds of things.” We would have put on presentations, but management and company attorneys don’t want anybody in medical or epidemiology to meet with the community because they’re afraid we’ll get caught with people asking us questions and our answer will adversely affect the lawsuit. So they hired an outside group to come in and do the community presentation.

Former employees may be constrained from providing information by company severance packages that bar them from discussing company matters. In addition, contracts for new employees may include confi-
dentistry agreements. A muzzle clause in the employment contract that an executive at a large international corporation was asked to sign stated that he agreed to “refrain from making any disparaging statements, either orally or in writing, about the company, its officers, directors, affiliates and officers, directors of any affiliates.” Court decisions that impede access to information are also becoming more prevalent. For example, litigation awards for health damage may require that court records be sealed, and defendant companies often make confidentiality a condition of settlement.

Lawyers do not always favor limiting access to information. There is increasing pressure on company officials to speak out and provide information, thereby potentially protecting the company by making the public, workers, or other companies assume risk and responsibility. They therefore sometimes favor publicizing information about serious risks.

Certain regulations and court decisions also drive corporations into more open communication. For example, the assumption-of-risk doctrine maintains that if citizens are informed about possible health hazards, they may have assumed the legal risk and corporations may not be held liable. Sometimes attorneys favor circulating risk information—even uncertain information that suggests rare possible hazards in the future—so that people aware of the possibility of harm will have assumed the risk themselves. Lawyers may therefore encourage written and verbal warnings to customers and citizens’ advisory groups in communities where businesses are emitting hazardous chemicals. An attorney who litigates occupational health cases said, “The lawyers’ assumption-of-risk argument is becoming more important than the marketers’ fear of scaring people.”

Marketers favor emphasizing the safety of using company products while withholding risk information from regulators, legislators, and the public. Similarly, public relations people want risk information to be understated and remote hazards not to be discussed. A corporate legal department thus comes into conflict with marketing and public relations officers about how to describe risks. Although attorneys often clash with or overrule physicians on questions of health hazards, doctors and company lawyers often find themselves allied against line managers concerned with sales, as this chemical company physician explained:

The lawyers are our allies in labeling. You make a hazardous
product legally a non-hazardous product just by labeling and warning people about it. If I responsibly tell you what this does and then you kill yourself with it, that's your problem. The lawyers are very punctilious about labeling, and we find ourselves clearly on the same wavelength about warning and labeling.

A chemical company physician described the tension between physicians and managers concerned with sales:

The constructive tension between the health guys and the line guys is over labeling and sales. How you label the stuff and who you can sell it to are product liability issues. We could profit by selling you a chemical and then incur several million dollars in liability after you do something dumb because you don't know how to deal with it and your house is not equipped for storing it. The line people want to sell this dangerous stuff. I say, "Wait, you're selling to a small customer." We make a product that leaves some messy gunk that's an anti-corrosion material you can add to well-drilling muds. The problem is, it's probably carcinogenic. We can sell it to drillers, but they are cowboys out there with mud on themselves, all over the equipment — it's a mess. We said, "We can just burn this stuff under boilers, just for heat, but we can't sell this stuff as a well-drilling mud edgement, because it's biologically active and carcinogenic." The line guys concerned with sales say: "Excuse me, but this doesn't cost us anything. It's pure profit. We'll sell it and label it and go talk to them a little bit."

A large oil company had a program in which doctors would examine chest X-rays of all employees in several plants who might have been exposed to asbestos since the 1940s to look for signs of asbestosis, although no law required them to do this. The company physician described the active effort to find the retired employees, to notify them that their X-rays showed signs of lung damage and that they needed more frequent medical follow-up and should not smoke. Subsequently many workers filed a class-action suit in a Texas industrial area against three or four other companies, but not this one, for failure to inform workers of their asbestos exposure and adverse health effects. A physician for the company that warned workers of asbestos risks — partly for defensive legal reasons — said:

The other companies were successfully sued to the tune of sev-
eral million dollars, and we were not sued because our employees had been warned. I don’t mean to say we do great things worldwide, but this story makes a manager sit bolt upright and say, “You guys are earning your keep. I had no idea what the asbestos regulations and our liability were, but you guys ran a program, you informed workers, and the three companies across the street just lost millions of dollars. We didn’t.” Then the lawyers started asking, “Well, if this was so great here, are we doing it elsewhere?” So it caused a systematic assessment of our asbestos-hazard-warning procedures throughout the world. We did a major mail survey, assessed the results, and then issued new internal company guidelines to tell medical departments worldwide what to do with employees who may have been exposed to asbestos. It became legally driven as much as health-driven at that point.

Some physicians try to persuade employers to do health monitoring that statutes or regulations do not require, arguing that litigation over adverse health effects can be avoided through preventive monitoring. As an oil company physician explained:

We have successfully persuaded our management to do active epidemiologically rigorous health surveillance. For instance, we have an ongoing mortality study — essentially a death registry of all our U.S. employees who ever worked for us more than a year. Periodically we do epidemiologic studies of the causes of death on that data base, looking for jobs or exposures to certain chemicals that may indicate a problem. We are required to report anything suspicious to the EPA. That was a sales pitch to management. It’s not something management would ever do on its own, and we sold that initially about fifteen years ago and need to resell it aggressively every two or three years. You have to sell the contribution of the medical department to them in tangible, bottom-line terms: this data base is useful in supporting our legal defense and media and community relations and labor-management issues at the plant level. For instance, someone who drove a gasoline truck for two years out of his thirty-year career with the company sues us because gasoline has benzene. Our lawyers — usually outside counsel — ask us, “What data do you have about leukemia rates in the company relative to driving gas trucks?” So we go to the computer and extract leukemia rates of certain worker subpopulations and it generally helps the lawyers in their defense.
A physician in another major oil company who identified cancer cases in company records used regulatory requirements to overcome management's opposition to informing workers and the government of the findings:

We analyzed our death certificates and found a fairly strong indication that we had an excess risk of leukemia and some related cancers among our oil and gas field exploration and production group. Management didn't want to hear that, but then we said, "You have to tell the employees and the government and we have to study it further." They particularly didn't want to hear that we wanted to notify the employees: "Oh, they'll be outraged and will sue the company and we'll have all these problems. We can't do that and you haven't proven it yet," so that was a tough one. We had to point out the law requires us to inform our employees and the EPA about a possible hazard.

In this case, lawyers collaborated with the physicians, health educators, corporate communications personnel, and management on wording the answers the company offered to concerned workers. It was management rather than the company lawyers that most strongly opposed telling people about potential hazards, as the physician explained:

Lawyers pushed for a full, open disclosure of what we had, but they looked to be sure we weren't saying anything inaccurate or inflammatory. Management looked at it in their traditional fashion: "Oh, my God! We don't want anybody to know what's happening until we're sure, until you've proven that something is there. We don't want the government to know. They might come and inspect us. We don't want the workers to know because then they'll be mad at us."

With the financial stakes in corporate liability cases rising, some corporations have tried to make other corporations responsible for health hazards. For example, asbestos and textile companies have provided data on the health risks of smoking in order to increase the liability of tobacco companies. As with labeling, company attorneys in these cases have favored the disclosure of information about corporate health hazards so that other companies would be liable for them.

43. See BRODEUR, supra note 2, at 183.
Attorneys also have advised employers to inform workers that they face special medical risks at work but then allow them to choose to remain on the job. They have required employees to sign consent forms, such as those that hospitals use, before undertaking workplace risks. Although economic decision-making models maintain that people freely choose risk to advance their own interests and preferences, workers are restricted in their ability to pursue their own interests. Employees lack information and job alternatives that would enable them to make choices that would help protect their health. The assumption of risk requires that the risk be known and the assumption voluntary. However, given the economic necessity of working, limited job alternatives (especially in manufacturing industries that experience layoffs and plant shutdowns), managerial control, and incomplete employee information on hazards, the available choices are limited. Another major problem with the economic decision-making models in the arena of occupational health is that company doctors and managers are shielded from the medical, monetary, and moral consequences of their actions. Managers constantly take risks that they do not define as risks because the consequences fall on workers or the public. They correctly perceive that others bear the risks and costs of their decisions.

V. RESPONSIBILITY FOR HEALTH RISKS AND COSTS

Conceptions of responsibility for health risks have changed in the past four decades along with trends in personal, professional, public, and

44. For example, according to one leading economist in this field, workers are paid $900 more on average for hazardous work and therefore deliberately take hazardous work for specific benefits. See W. Kip Viscusi, Risk By Choice: Regulating Health and Safety in the Workplace 107 (1983).


corporate liability. Employers and the public confront steadily growing costs of work-related disease, including millions of dollars in medical care, lost work time, insurance, and disability payments. Spiraling health costs in the 1980s and 1990s have left employers almost desperately seeking solutions that would lower their costs and shield them from liability. These health costs have been under close scrutiny as part of a larger debate over health-care delivery. Company doctors and their employers argue that health costs have badly hurt their companies' economic well-being, causing them to lose half the profitability of American industry in the last ten years. Thus employers argue that they must save on health-care costs either by screening workers better to remove expensive people from the payrolls or by requiring them to pay a higher share of the cost. They generally use medical management strategies to try to control costs rather than increasing spending to create a safe work environment. Corporations employ physicians to screen workers and provide health-care to them in the belief that having in-house physicians is cheaper than just insuring them. Even then, few see the advantages of using their physicians not only for providing health-care but for helping create a safe environment through medical surveillance and prevention.

Employers try to characterize the expenses of workplace hazards as a social cost they need not bear, and they have largely succeeded in doing so. Individual employees, their families, and the public pay most occupational disease costs in the form of Social Security and Disability (and they also bear the burden of disease and death, of course). Companies push for more lenient workers' compensation provisions, less restrictive regulatory penalties, and laws that will hold employers less accountable for chemical health hazards — all of which would further shift costs onto workers and the public.

A. The Difficulty of Measuring and Justifying Prevention

Doctors who believe they provide valuable preventive health services in the corporation bemoan the fact that they have been unable to demonstrate the cost-saving value of their services to corporate management. They try to show that preventing lawsuits and reducing workers' compensation claims and absenteeism save the company money. Their best efforts generally are unconvincing when management asks, "How do

47. See generally ROSENBLATT ET AL., supra note 11, at 1-368, 466-1077.
you know you did that?" Managers do not see the health benefits and decreased workers’ compensation expenses that in-house doctors claim to produce. Thus companies cut back their in-house staffs in part because managers do not believe that a large in-house staff saves the company money. A telecommunications company physician said:

No officer of this business would disagree that my objective of healthy, productive people contributing to the success of the business is a desirable objective. Where we part ways is my proposing that the company spend money in order to save money, and other people who compete for those resources say, “while you save money we won’t have any money coming in to upgrade the network.” How the corporate leadership prioritizes those competing demands for limited investment capital in allocating resources is tricky.

Justifying preventive programs is difficult, in part because the cost savings of some goals in occupational medicine, such as health education, are hard to quantify. The medical community itself is just now beginning to accept preventive medicine and overcome the belief that curative practices are the only true medicine. As a mining physician explained:

Nobody bats an eyelash about paying a million dollars to transplant a liver, but it’s still hard to get anybody to contribute ten cents to prevent that liver from being damaged. That concept still permeates medicine. The controller immediately can put the value of digging ten tons of coal on the line. You get the same value through health education, preventive programs, ergonomic factors, and engineering designs, but it shows up in three to five years, not immediately.

The telecommunications company physician articulated another aspect of this difficulty:

Physicians put successful programs in place after companies say the disease or accident rate is unacceptable. Then a new CEO with none of this knowledge comes in and says, “We haven’t had any accidents in five years. Why spend so much on this safety program?” He doesn’t know what the rate was without the prevention program. That’s the paradox of prevention: You can’t
count things that don’t happen. When you’ve had a comprehensive program in place for years and a new corporate leadership team looks at your health-care costs, they don’t appreciate what the situation was before. Their attitude is, “Get rid of these expensive things and we’ll wait and see. We can always put ’em back in if it goes up, but we’ve saved a lot of money if it doesn’t.”

An important reason doctors have had difficulty in clearly demonstrating the benefits of their health services is the difficulty of proving a negative. Preventive programs, by their nature, are difficult to justify because it is difficult to point to illness prevented and justify a budget based on prospective savings, to prove that companies get what they pay for. Physicians in oil and retail sales companies said:

You can crank out numbers but they’re not convinced by it, and in some ways they shouldn’t be, because how do you know you saved money unless you could do a controlled study, which you could never do. Still, organizations will always get asked, “How much do you think you return to the company and in what ways?” So you write a report about what you saved. The budget for all medical expenses in the company is about eighteen million dollars, including all the staff, services we provide, computer support, rents, and supplies. That doesn’t even reach a significant portion of one percent of our company’s expenditures in a year. The company spent about five billion dollars last year to explore and produce and refine oil. Our medical department cost is just a drop in the bucket, but it’s an easy figure for them to look at and say, “Do we want to spend eighteen million dollars? Can we do it other ways?”

They can’t measure the ineffable benefits because they are ineffable. How do you measure somebody waking up in the year 2000 on a Tuesday, fifty-four years old, and saying, “Oh my, I didn’t have a heart attack today because in 1970 they persuaded me in my periodic to quit smoking, get my blood pressure under control, bring down my cholesterol, stick with a diet, do regular exercise.” There’s no measuring that, but the payoff could be tremendous.

Unfortunately, paying serious attention to occupational disease and prevention may not make good sense purely on economic grounds. The
rise in premium costs for workers' compensation is an insufficient deterrent to poor control practices in a corporation. Hazards that companies ignore may never hurt them. The real risk to employers outside of workers' compensation claims may be negligible unless a company is shown to be willfully negligent. Paying serious attention to occupational disease does make good sense, however, if a company wants to protect a skilled work force that is difficult to replace, or desires employee good will, or has a genuine interest in protecting workers' health.49

Keeping people well adds to pension costs. Healthier workers may live longer, use more pension benefits, and then develop disease later. Preventive health measures may thus delay disease so that costs are for seventy-year-olds instead of sixty-five-year-olds. Telecommunications and aerospace physicians said:

You can say, "Look, we saved all this money because we prevented so many heart attacks"; but if your company insures people from the time they work for you until they die, it doesn't show on your bottom line today, and maybe you just delayed the heart attacks and didn't prevent them.

Workers live longer if you improve their health; they'll enjoy their pension longer at an increased cost to the company, so you have to be conscious how you present your material in a company totally oriented towards the dollar; you have to show that the overall return will be better than something that might be written off as humanitarian.

However, as this chemical company physician pointed out, cutting pension costs is not a good reason to avoid preventive health programs:

When I put in a wellness program corporatewide, the argument of our benefits guy always was, "You'll increase our pension cost." My counter to that was that I hoped he was right; I hoped that we would be so successful that people would live longer. The advantage is that health-care costs are paid out of operating income. Pensions are vested, so we put aside money for a pension whether people use it or not. We pay health-care out of our net profits, so it's a whole lot cheaper to have somebody pensioned longer if you can lower their health-care costs. That's the

49. Company medical programs may have the added benefits of raising productivity and morale and reducing use of the company medical plan.
Top executives typically are judged by their short-term performance, which militates against investment in disease prevention. Preventive steps represent a short-term cost and a special burden in times of corporate retrenchment. Many corporations treat their health and environmental staff as easily expendable, overlooking their potential contribution for the company's long-term well-being. In contrast, company managements with a long-term perspective believe that spending for preventive services makes good economic and employee-relations sense; they sustain a level of profitability able to support that longer-term need more easily, unlike the many American corporations that are struggling with declining profitability and worldwide market share. American companies lack long-term vision when they pursue quick profits to satisfy stockholders and ensure good bonuses for management, a phenomenon not limited to medical issues. Chemical and conglomerate company physicians stated:

Management thinks their job is to return money to stockholders, with an extreme emphasis on short-term profitability, which has been a pathology of the American economy. Lawyers are there to let managers do that and reduce liability.

At a meeting the medical benefits people were showing the CEO on a blackboard ways we could save money. He had two choices: on the left, save a little bit now through Band-Aid items, or on the right, go for the big bundle about three years down the road by implementing the approach that could save us considerably more. The CEO looked at it and said, "I'll take the left," which told me that he's being judged by the present. He probably decided he might not even be around long enough to see the gigantic savings down the road if he doesn't show profit now.

In addition to the problem of short-term versus long-term thinking, focusing the attention of executives on reducing occupational disease

---

becomes more difficult when the projected savings are small relative to other company expenses, including health benefits. Physicians with conglomerate and publishing companies described unsuccessfully pressing for cost-savings plans in their companies:

We tried to promote a plan to save the company money and we got an audience with a division president. He paced the floor as we showed him how we could save two million dollars, and his response was, “I appreciate your efforts, but this amount is just too small for me to spend much time and energy on. Right now, I have twenty-million-dollar issues in savings.” Medical departments don’t account for much. You’re small compared with other departments and services are expendable.

Companies are struggling with health-care and paying their medical bills is probably their biggest fear now. Our company [of 10,000 people] paid twenty million dollars for health insurance last year. It’s just staggering. That’s the big issue. We’ve shown how we can save them money and provide a great service to our employees by putting an X-ray machine in here, and we can save them $275,000 if we put in an in-house pharmacy, but they haven’t done it. They think about too many other big problems like health insurance and getting a new plant up and running to put things like that in.

One mining company physician said he saved the company fifty-five million dollars in benefits by instituting tests showing that people making claims either were not ill or had an illness unrelated to their work. He said:

When I came here, black lung [or coal workers pneumoconiosis] cost this company sixty million a year in workers’ comp benefits. The fund created to pay these benefits was going bankrupt. When I started reviewing all the cases we were involved with, I found the black-lung awards were granted with no medical evidence, if you worked in the mines fifteen years. So we did a study and found that eighty-eight percent of the cases awarded benefits had normal X-rays, blood-gas studies, and pulmonary-function studies. Requiring medical input reduced the company cost to thirty million within eighteen months, and to five million in five years. The fund is no longer bankrupt; the people who deserve compensation get it and others don’t. When I saved the
company fifty-five million dollars, we showed operating management that the medical function has a bottom-line value they can see.

But such savings do not necessarily persuade employers that in-house physicians have continuing value. The employer can still say, “You served your function; we’ve brought down costs and instituted new procedures, but what have you done for us lately?” Large companies often believe it is cheaper to buy a service than to pay employees, whether physicians or maintenance workers, especially in view of the benefits they save. An oil company physician and a physician who directs an occupational medicine program said:

Companies are not necessarily cutting down on the program, but they don’t seem to care what you spend on contract services as long as company employees aren’t doing the work. Company employees know the company better and have greater loyalty to the company than contract workers, and I should be able to perform those services better. But this corporation like many others doesn’t care what it costs as long as it doesn’t cost people in the company.

Medical services do not generate income. Although it may cost as much or slightly more to outplace, it comes out of a different pocket. They reduce a salary slot. That looks good and indicates tight management.

The corporate medical department has always been considered a service unit rather than a line or operational unit that makes money. However, cost does not entirely explain why corporations outsource their medical services, because contract services are not necessarily less expensive than having physicians in-house. Problems of physician loyalty to their corporate employers help explain employers’ perspective on replacing in-house physicians with contract physicians.

B. Corporate Loyalty and Costs of Preventing Health Hazards

The corporate model of loyalty and service to the employer is in tension with the medical profession’s model of loyalty to the patient and advocacy for health. Doctors must constantly cast their medical judgments in profit terms and show the business value of medicine, which
they sometimes cannot do where services are simply good for the employees’ health. The doctor’s opinion and medical priorities will often prevail in a clinical setting, but implementing an idea or policy within a corporation requires building consensus among people with diverse perspectives and recognizing that health maintenance is only one need of the corporation. A physician for an oil company said, “In order to find successful ways of getting your programs to move forward while at the same time supporting the business objectives, you need to be aware of the priorities of the large organization that surrounds you.” Someone who puts on a white coat and says, “I’m a doctor. Leave me alone” is often the person who fails in the business managers’ terms. An oil company physician said:

Occupational physicians must be opportunistic to be able to survive in the corporate arena. It’s a question of being relevant to what a corporation needs out of doctors. The standard medical education does not equip doctors to be relevant to corporations, and old-style doctors sooner or later will be goners if they think their white coat and stethoscope and reputation and aura of respect alone will be sufficient in the corporate world.

Company doctors describe their corporate work and legal responsibilities in terms of their performance as “team players.” Team players appear to be loyal, in that they follow corporate directives and pursue their employers’ goals. But their preferred view is not solely to serve the company. Rather, they are team players who bring career and professional interests to their corporate roles. Being a team player is the new kind of professionalism. Professionals define it in terms of individual career, self protection, and survival in corporate employment. When professionals operate as team players, they usually are not sacrificing for the good of the society, or even for the good of the corporation. Their seeming loyalty to the corporation often grows out of fear of losing their employment or concern for their career opportunities as individuals.

The perspective of the CEO certainly affects the way doctors treat workers’ health. A CEO’s sense of noblesse oblige and long-standing support of employee programs boosts company medicine. Although the overall corporate culture affects whether the occupational medical program is beneficial or not, the medical department may not benefit from a favorable corporate culture without the CEO’s support. It does not matter who the medical director is, or even if there is one, if senior leader-
ship is not already persuaded that in-house medicine is good for employees or the business. A corporate medical director can spend years building up a program, and then the CEO can change; the whole department can be dismantled because the new CEO says, “We’re in the business of producing oil, not health-care.”

One main way in which doctors become team players is by, as they say, learning to “pick your battles.” Doctors sound the theme again and again that they must do this to avoid becoming isolated in the corporation. Physicians who have provided medical services to many companies said:

You have to choose your battles very carefully. You have to say to management, Okay, I won’t go to the mat over these fifty-fifty things, where it’s not real clear. Management could be right, the worker could be right — who knows? I won’t alienate the legal department or my co-employees over it. I want to go to the cafeteria and have somebody sit with me.

Being a part of a corporation, making team decisions, a physician wears velvet handcuffs. You’re quiet about it even if you don’t like what’s going on.

Physicians face loyalty dilemmas that are invisible to them because they take the form of pragmatic self-censorship. They do not always try to persuade managers every time they see something that would be good for health, because they know it will not succeed. Physicians sometimes envy the ability to initiate and act on ideas without the many constraints of being a team player. But they speak of a balance, maturity, and the need to pick their battles carefully and marshal evidence to go to bat for a few things. One chemical company physician said:

Picking your battles is part of being a good politician. You can’t fight or win them all, because you’re perceived as constantly tilting at windmills as soon as you try to do that.

Doctors feel threats to their security, even though most could go out into private practice and survive. A publishing company physician said:

I don’t want to go into private practice because it’s hard out there with managed care, and doctors in private practice are hurting. It’s not the time. You always pick your time and your
place when you want to cause some pointed remarks. There’s no sense rocking the boat at this stage of the game.

Company doctors become more powerful within corporations when they function as benefits managers and cost-containment experts who help manage their corporations’ enormous health costs, including group-health insurance and disability. Other company doctors become successful in corporations that perceive a need for them to attend to potentially costly occupational and environmental health hazards. These corporations are more likely to hire doctors and provide resources that can make the physicians more influential. Company doctors also become important to corporations through helping employers interpret hazardous substance regulation and respond to it, where risk management within a company is a significant issue. Despite these routes to success, powerful physicians in companies remain atypical.

Some managers take the position that they want to be the first to know about a problem when it first comes to light; they reward doctors for informing them and punish physicians for not bringing a matter to management’s attention. Managers tend to take little interest in health issues unless the law requires them to do so or the related costs appear large. Even then, management delegates these issues to the lawyers, doctors, other health professionals, and regulatory staff. They become involved enough to have only a general understanding that they must comply with the law.

Physicians who have tried to get management to recognize health problems and take action to solve them are often punished for bringing bad news to management when managers assume the stance that knowing about hazards creates problems for them. Company doctors seek to protect themselves by not telling managers what they do not want to hear, but feel obligated from time to time to do just that. Management may consider a message from company doctors especially odious if they believe it really comes from resented government regulation. An oil company physician said:

Because often you do things that the government tells corporations they have to do, you can be tarred with the same brush. It makes us look like we’re just one of those regulators every time the government passes another law that means you have to comply with something else. We’re a necessary evil: “If we had our choice, we wouldn’t have you. But no, the government makes us
do these things, so I guess we have to have you around.”

Another doctor for a major oil company knew about a physician colleague who was terminated because he brought bad news to the company executives in the interest of protecting the company. He said that at the annual meeting, the CEO said, “We don’t shoot the messenger.” The physician said, “They do say that in this company they don’t shoot the messenger. Normally they don’t.”

Some companies have established internal mechanisms — such as quality circles or ombudspersons — whereby individuals may be free to express their views. However, corporate professionals recognize that for their own self-preservation, providing risk information to the government, unions, or internal committees is risky because it typically would be clear by its nature where the information comes from. Thus, it is difficult for professionals to protest company policies, even where the employer has procedures for employees to report errors, illegal activity, and unethical conduct.

Whistleblowers frequently are not disgruntled marginal employees, but rather people in quality control, health and safety, and other parts of companies that are supposed to identify problems and act. They blow the whistle when they find the organization responding inadequately to problems that they think the employer has a responsibility to solve.51 But most corporate professionals do not blow the whistle when they find major hazards in corporations. They know whistleblowers have suffered retribution in the past, and that managers have kept them out of the informational loop after concluding that they are not reliable team players who solve business problems as management defines them. Even some who have high-level positions in large corporations are not consulted on important company matters and do not get the ear of the top executives or gain access to information about the production of new products. Whether management consults them generally depends on employers’ relationship with their own professionals, and their experience in handling previous problems.

Although corporate professionals generally are not encouraged to

51. See generally Terance D. Miethe & Joyce Rothschild, Whistleblowing and the Control of Organizational Misconduct, 64 SOC. INQUIRY 322 (1994); Joyce Rothschild & Terance D. Miethe, Whistleblowing as Resistance in Modern Work Organizations: The Politics of Revealing Organizational Deception and Abuse, in RESISTANCE AND POWER IN ORGANIZATIONS (John Jermier et al. eds., 1994).
bring costly problems to management's attention, when they do and are rebuffed, they can make an outside entity — such as their professional organization or state regulatory agencies — aware of the problem. For example, if their employer refuses to take remedial measures, company physicians can report exposure hazards to their professional organization, the American College of Occupational and Environmental Medicine (ACOEM), whose ethical code dictates that a physician's loyalty must be to his or her patients. The organization's professional journal, *The Journal of Occupational Medicine*, includes monthly reminders to company doctors that their responsibility is only to their patients and that general medical ethics principles of informed consent and confidentiality apply in corporations. Despite these pronouncements and the fact that the professional organization's members may confidentially counsel individual physicians, company doctors have had little real help from professional organizations. ACOEM's ethics board has not imposed sanctions on physicians for following their employer's directives, nor formally censured them for ethics violations, even when serious injury or breaches of confidentiality have been involved. Corporate physicians, like other professional groups, argue that they can best police themselves.

C. Workers' Compensation and Contested Claims

Workers' compensation payments to victims of occupational disease historically have been low in most companies, shielding employers from costs as well as lawsuits for disease. But as discussed above, new laws that widen the scope of employers' compensation payments for chronic illness, as well as lawsuits against employers who intentionally inflict

---

52. See American College of Occupational and Environmental Medicine, *American College of Occupational and Environmental Medicine Code of Ethical Conduct*, 36 J. OCCUPATIONAL MED. 28 (1994), for ACOEM's ethical code. ACOEM's ethics committee is charged with evaluating possible breaches of professional ethics. While professionals themselves express conflict over the difficult decisions they make, professional journals, speeches, and ethical codes often proclaim the independent professional judgment of corporate professionals.

53. Millman analyzes a similar pattern with medical mortality review boards, describing the functioning of these boards as "a cordial affair" that shields fellow professionals from repercussions for their actions and infrequently sanctions them. See MARCIA MILLMAN, THE UNKINDEST CUT 97-119 (1977); Marcia Millman, Medical Mortality Review: A Cordial Affair, in THE SOCIOLOGY OF HEALTH AND ILLNESS: CRITICAL PERSPECTIVES (Peter Conrad & Rochelle Kern eds., 1981).
harm, have undercut employers' traditional immunity to financial responsibility for occupational disease.\textsuperscript{54} Also, the minimum requirement for being considered a compensable injury has recently been lowered throughout the U.S. The number of conditions that are considered work-related is expanding, as are the incentives to file claims. Even coronary artery disease can be considered a compensable job-related injury if an employee has a heart attack on the job, despite personal risk factors such as a family history, diabetes, and hypertension. A person with AIDS and job stress could claim that all the medical care required is compensable because the job stress accelerated or aggravated the AIDS symptomatology.\textsuperscript{55}

Rising health-care costs have increased the incentives for employers to reduce disease among employees and to screen workers according to health risks. Employers also have strong incentives to describe workers' illnesses as unrelated to work, or to deny disabled workers a medical impairment rating and force them to continue working even though they are clearly disabled. A labor health official said:

Doctors don't provide the sort of services workers need because they aren't trained to understand the work-related claims and they don't diagnose the illnesses as occupational. The employers get away scot-free because those illnesses aren't paid out of

\textsuperscript{54} Workers' compensation began in 1911 to pay for medical care and provide income to people who were hurt at work. Workers' compensation was not designed to cover disease. Despite recent modifications to widen its coverage, only five percent of compensation cases are for occupationally induced disease. \textit{See} John F. Burton, Jr. \textit{The Compensability of Workplace Stress}, in WORKERS' COMPENSATION MONITOR 12 (1988). Some workers are not covered by workers' compensation. For example, mining safety and injury is under the purview of the Mining Safety and Health Administration (MSHA), not OSHA. Longshore workers come under a federally administered program called the Jones Act, 46 U.S.C. § 688 (1994 & Supp. II 1996). Railroads come under the Federal Employers' Liability Act (FELA), 45 U.S.C. §§ 51-60 (1994 & Supp. II 1996), under which injured employees who claim that the company was negligent in any way may get an attorney and sue for their injuries, which is different from workers' compensation. \textit{See id.} at § 51. A minor injury and surgery that is successful might wind up with a large settlement. The railroads have decided to set up a wage continuation program, whereby a person who is legitimately injured and cannot return to work receives a continuing salary and is paid to be home. Once employees recover and can go back to work, they come back or are cut off from wage continuation and can get a lawyer.

\textsuperscript{55} On workers' compensation costs, see WILLBORN ET AL., \textit{supra} note 14, at 715-869.
workers' compensation. The health-and-welfare funds that pay for treatment instead can be severely taxed as a result of diseases not being properly classified.

One important reason why health costs are shifted onto the workers' compensation system is that many people have no private health insurance. In that situation, both the patient and the provider have an incentive to find a reason why their illnesses are work-related. Providers of medical services have traditionally sought reimbursement through workers' compensation whenever possible, even when the workplace causation is questionable. At other times, private providers realize that individuals do not have complete coverage or their group health plan has stricter limits than workers' compensation on the number of medical visits or treatments a person can receive. However, doctors who know patients will be reimbursed for continuing treatment may continue to treat them until they reach a limit of visits beyond which the person must pay out-of-pocket.

Doctors describe the workers' compensation system of payments for medical expenses as the last sort of unregulated "cash cow" in the medical field. However, it has come under intense scrutiny and is likely to change over the next decade, especially if any kind of national health insurance integrates medical services. For now, though, it is a unique niche in the economics and practice of medicine, one that has been relatively free of intervention for a long time.

Many employers, insurers, and company doctors maintain that payments for medical care under workers' compensation are in crisis, riddled with fraud and abuse. They complain that the compensation system favors employees over employers and encourages tremendous waste, especially in the handling of stress claims and "soft tissue" injuries (such as back pain of unclear etiology) that can be treated with physical therapy. Overall, litigating workers' compensation cases has been lucrative for attorneys. Individual disease claims generally yield settlements of only a few thousand dollars, so attorneys need to handle many such cases to earn a living. Disease claims also tend to be time-

56. The lack of utilization review and limits on coverage helps explain the escalating workers' compensation medical costs. Workers' compensation payments for medical expenses have not been slashed like other medical costs and regulated to the degree that other types of physician services have been.

Liability of Company Doctors

consuming and more difficult than injury claims, unless attorneys can find many people with the same disease or the same employer. Third-party tort cases are potentially larger because they generally have no cap on the size of the awards to plaintiffs. In some jurisdictions, exposed plaintiffs without symptoms of a disease may nevertheless be able to collect for their increased risk of developing cancer, based on evidence from epidemiological or animal studies indicating that the exposure causes cancer.  

Physicians often advise corporate loss-control personnel about ways to control workers’ compensation costs, serve as witnesses for the company in contested cases, and heavily influence whether employees are permitted to return to work after illnesses. They also, along with attorneys, absorb money from the compensation system. Although the workers’ compensation system was set up to be non-adversarial, it is in fact highly adversarial and litigious. The two sides have developed sets of doctors to serve them, so that over time physicians become claimants’ doctors or carriers’ doctors, just as there are different sets of lawyers who represent the different interests. Employers require workers to go to doctors who consistently support judgments in the companies’ favor. A power company physician explained:

Good-quality physicians don’t want to be a part of the workers’ comp system because it is so polluted with fraud. It is a legal process, not a medical one. I have difficulty finding good clinicians to evaluate people for workers’ comp, because they don’t like paperwork and the process and how things get polluted. This is one of my ongoing battles with the claims litigation people, too. I treat injured employees and refer them to good clinicians who I know will take care of their medical condition. My good clinicians don’t always write the legal reports that management would like to see, so they want me to change my referral pattern and send them to their little preferred provider network they’d like us to use for workers’ comp injuries. Those are poor-quality physicians who write magnificent legal reports that the claims people like to see but don’t provide good clinical care. The vast majority of patients would not file claims and litigate if we took good care of them and treated them better. Pa-

patients get totally lost in the system; they’re utterly confused by evaluators and treaters, and who’s supposed to be their doctor.

Workers can say they want to change doctors only under certain circumstances, such as the presence of a state law or a collective bargaining agreement that permits a choice of physician. A labor official with extensive experience in health issues said:

If companies send you down to Doctor Jones, an independent, and don’t like what he sends back, they shop for another doctor until they find somebody who gives a prescription they can accept, even in workers’ comp cases. You have a right to see your own doctor under workers’ compensation in some states or if there’s a union, so you might be able to quarrel with them about what your own physician said and present medical evidence in an arbitration, but most people don’t have that protection.

Health-care reform has already changed the way employers handle medicine by focusing their attention on the rising cost of providing medical services to employees. Chief financial officers now worry about how they will footnote their potential liability in their annual reports. Increased costs and potentially increased liability have become critically important economic issues to employers and insurance carriers as medical costs continue to mount as a proportion of the total workers’ compensation bill. However, the issue of health-care quality for employees, whether companies provide it themselves or contract it out, has not changed substantially. Moreover, the workers’ compensation system draws attention only to the care given to workers after they are hurt rather than to the need for preventive practices in the workplace.

D. Physicians’ Evaluation of Health Risks in the Context of Disability Law

Discrimination and disability law have had a major effect on workplace medicine. Examples are the Americans with Disabilities Act of 1990 (ADA), the Supreme Court’s decision in Johnson Controls barring fetal exclusion policies in employment, and state discrimination

59. Companies need to account for future growth in employers’ liability for future health-care benefits just as they need to account for pension-funding liabilities.
61. See Int’l Union, United Auto., Aerospace, & Agric. Implement Workers of
laws that restrict workplace medical screening. Recent legal decisions have challenged the ways in which employers and policy advocates think about screening policies. They also have increased the likelihood of further costly litigation related to health risks. However, current laws reinforce the power of managers to define risk and screen out workers, even as new protections for disabled workers restrict the right of employers to hire and fire according to health risk. This area of the law is in great flux, with cities, states, and the federal government actively contending with medical screening issues and the extent of employee rights and employer prerogatives.

The ADA explicitly prohibits pre-employment medical examinations to detect disabilities (unless the tests offer information about the individual’s ability to perform job-related functions), and it prohibits discrimination against the disabled by most private employers. Employers

---

63. See BENJAMIN W. WOLKINSON & RICHARD N. BLOCK, EMPLOYMENT LAW: THE WORKPLACE RIGHTS OF EMPLOYEES AND EMPLOYERS (1996); Joseph S. Alper, Does the ADA Provide Protection Against Discrimination on the Basis of Genotype? 23 J.L. MED. & ETHICS 167 (1995). Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e-2 (1994 & Supp. II 1996), provides limited protection against discriminatory screening by making it illegal for employers to limit, segregate, or classify employees in any way that would tend to deprive individuals of employment opportunities or otherwise adversely affect their status as employees through screening programs that treat differently or disproportionately affect a class protected under Title VII (such as race, sex, or ethnicity), where employers cannot justify the practice with a recognized employer defense (such as business necessity or that a policy that explicitly discriminates against protected classes is based on bona fide occupational qualifications that are reasonably necessary to the normal operation of the business). See id.; see also MARK A. ROTHSTEIN, MEDICAL SCREENING OF WORKERS 132-35 (1984). In addition, Title VI prohibits recipients of federal funds from discriminating based on race. See 42 U.S.C. § 2000d (1994 & Supp. II 1996).
64. See 42 U.S.C. §§ 12101-12213 (1994 & Supp. II 1996). The employment provisions of the ADA took effect in 1992. The ADA protects people who have, or who are perceived to have, physical or mental impairments that substantially limit one or more of the individual’s major life activities from discrimination in employment, public accommodations, governmental services, transportation, and telecommunications. See id. § 12112(a) (employment), § 12182 (public accommodations), § 12132 (public services in general), § 12102(2) (defining disability). See also 29 C.F.R. § 1630.2(g) (1998); 56 Fed. Reg. 35,726, 35,735 (1991) (EEOC guidelines on disability). Employers can require physical examinations of applicants only after they make
must make reasonable accommodation to disabled individuals whose abilities initially may not seem to match the job requirements, but they may justifiably refuse to hire them if no reasonable accommodation would allow them to do the job. However, an employer cannot eliminate disabled individuals from work as long as they can perform the essential functions of their job without endangering themselves or others. Physicians protest that the ADA compels them not to reject high-risk individuals. As this computer physician explained:

The ADA essentially says an employer cannot restrict the person from doing a job unless you can prove there’s an imminent danger to life involved. Courts ask for real proof, not just “I think it’ll happen.” At the same time, the corporation has to pay for injuries a worker may suffer if some negligent act occurs. The definition of what’s disabled is ludicrous. It’s everything, with no limit. You are covered under the ADA if you believe someone perceives you to be disabled—maybe someone believes you have AIDS and you don’t have it—how ludicrous can they get? People who are incapable of working will slip through, and it will create problems. I don’t know how you can be competitive today with this kind of stuff. To me, it’s just like shooting yourself in the foot and then asking, “How come I’m limping?” It troubles me that the ADA is so unreasonable: We have to give a job offer before examining them. What’s the sense in that?

The ADA makes it more difficult for companies to screen workers from activities because of current or future impairments and to use medical guidelines to reject people from employment. It may not result in less testing, however. An electronics company physician said:

a conditional offer of employment. See 42 U.S.C. § 12112(d)(3) (1994 & Supp. II 1996). However, employers can withdraw an offer if they can prove that an applicant cannot perform the essential functions of the job even with reasonable accommodation or if the candidates pose a “direct threat” to themselves or others on the job. See id. § 12111(8) (reasonable accommodation); § 12111(3) (direct threat); 29 C.F.R. § 1630.2(r) (1998). The ADA explicitly states (in Title V) that prohibited discrimination does not include conventional risk underwriting by insurance companies or self-insured employers, instead leaving insurance regulation to the states. See 42 U.S.C. § 12201(c)(1) (1994 & Supp. II 1996).
65. See id. § 12111(8).
66. See id.
67. See id. §§ 12112(a), 12111(3).
ADA changes the order in which testing and job offers are done, but if anything, more testing will be done. It is still perfectly okay to do a medical evaluation after the job offer, so we'll continue with our evaluations. As soon as people get on board, they can always claim that you put them into a job that aggravated their condition. You still have to make sure you have a good match.

Although employers generally cannot test people or ask medical questions before offering them employment, they can test for high-risk workers and use questionnaires after they have extended conditional employment offers. Physicians may determine physical or mental capabilities to do the job once the employee has accepted it. Employers have the opportunity to ask about work history and to link it to future susceptibility, and they can still screen out individuals rather than take risks with people who have prior health claims or potential health problems. And an employer can decide whether a reasonable accommodation to the employee's abilities would enable that person to do the job. A pharmaceutical company physician said:

We can do a placement examination with no restrictions as long as we do it after we've made an employment offer. Then we can do whatever we want and it doesn't have to have a job relationship.

The ADA permits drug testing and does not require employers to accommodate drug-users, but it leaves unclear which other kinds of


69. The ADA excludes persons currently using illegal drugs from the term “individual with a disability” as long as the employer took its action against the person due to the drug use. See 42 U.S.C. § 12210 (1994 & Supp. II 1996). The American Management Association (AMA) found in 1996 that 81.1 percent of its member companies in the U.S. conducted drug testing, up from 21.5 percent in 1987. See American Management Association, 1996 AMA Survey: Workplace Drug Testing and Drug Abuse Policies 1 (1996). The AMA analyzed surveys from about 10 percent (961) of its 9500 U.S. corporate members, which are relatively large firms that together employ a quarter of the U.S. work force. See id. at 9. Companies reported a positive test rate in 1995 of four percent among new hires and 1.9 percent among current employees. 67.7 percent of the surveyed companies test all new hires for drugs in pre-employment exams. See id. at 3. Large companies generally test all job applicants
mental or physical disabilities employers can screen for and which disabilities must be accommodated. Case law will clarify how much an employer must do to accommodate a particular disability. Courts also must determine whether or not particular conditions qualify as disabilities. How employers should consider biological and psychological differences in employee selection is unclear. Moreover, the U.S. Equal Employment Opportunity Commission (EEOC) has yet to define what a medical examination is — which is important because the ADA prohibits pre-employment medical examinations. The EEOC has said that physical agility testing is not a medical examination, so that police and fire departments can make candidates run obstacle courses; but it has not ruled on strength testing or a hearing test or an eye chart examination. What testing and prophylactic restrictions for future harm the ADA permits remains unsettled. An airline company physician said:

We're asked to discriminate, but we're asked not to discriminate illegally, so I try for what is fair according to my lights. Unfortunately, I don’t always guess what other people will decide later for every position, who are offered jobs on the condition that they pass the drug test. They also periodically test workers in safety-sensitive jobs and test people "for cause": after an accident or functional deficit creates the suspicion that individuals may be under the influence of drugs. However, employers use tests they acknowledge are not effective in detecting many problems and result in few positive test results. Corporations that routinely test job applicants and use for-cause testing typically have a positive rate of one to four percent. Employers say that although the policing function is not particularly effective in catching drug users, drug screening nonetheless deters drug users from applying to work for them and keeps some casual drug-user employees away from drugs. It helps employers accomplish their non-health-related goals. See generally Nancy Durbin & Tom Grant, Fitness for Duty in the Nuclear Industry: Update of the Technical Issues 1996 (NUREG/CR-6470) (1996); Jacques Normand et al. eds., Under the Influence? Drugs and the American Work Force (1994); Wolkina & Block, supra note 63; Scott MacDonald & Paul Roman eds., Drug Testing in the Workplace (1994).

Under the ADA, important issues leave considerable room for judgment, such as those concerning whether impairments impede the ability to do the job, whether excluding a person is a business necessity, how much effort is reasonable to put forth on a job placement, and what reasonable accommodation and work assignments are for those with potential health problems. In addition to the ADA, other state and federal laws apply, such as the Fair Employment and Housing Act (FEHA) in California. See Cal. Gov't Code §§ 12900-12993 (1992 & West Supp. 1998). The Office of Federal Contract Compliance Programs (OFCCP) regulates any company with federal funding, such as airlines that carry the mail.
was fair. I've come to loathe being in that position; physicians are forced to make decisions about prophylactic restrictions, with no clear guidance available at all. It gets harder and harder, because when I make a decision, I know I'll be reading it to some damn judge in court, so I write everything and make every decision as if I'll have to sit and defend it to judges and lawyers. I've been practicing thirty years, so I say, "This person has a good chance within a year or two of needing back surgery," so I won't let them work. That used to be okay, but now there's some question about whether I can make prophylactic restrictions at all that pertain only to the individual's safety. We know if we restrict people inappropriately they'll bring a grievance and file an EEOC complaint and then sue us if they exhaust all those options. Government agencies for discrimination against employees investigated us a number of times for our decisions about employees, and we know they come in here loaded for bear. They assume that you intend to discriminate and they give people back pay and reinstate them.

Employers have access to genetic information, from medical records and from claims for medical reimbursement that employees file. According to the EEOC, the medical examinations employers give after they make a conditional employment offer may include a genetic test. But it would be illegal to withdraw an offer after a genetic test if the test is not job-related. It remains difficult to determine whether the ADA

71. The ADA itself does not even mention genetics or genetic traits, and genetic susceptibility to disease and death was not a focus of the congressional debate on the ADA. The EEOC originally took the position that the ADA does not cover individuals until they are symptomatic and that the risk of future impairment is not a disability under the ADA. Then in its March 1995 interpretation of the ADA, the EEOC stated that disability under the ADA would include individuals who are predisposed to, or presymptomatic for, a disabling disease. See EEOC, Compliance Manual, Vol. 2, EEOC Order No. 915.0002, § 902.8 (Mar. 14, 1995). This new section in the EEOC Compliance Manual concludes that individuals who are subjected to discrimination based on "genetic information relating to illness, disease, or other disorders" are being regarded as having disabling impairments. See id. However, it is unclear whether courts will adopt the EEOC opinion. See Mehlmen et al., supra note 46, at 395. Further, the EEOC's interpretation of the ADA does not limit an employer's ability to test or collect medical information after a conditional job offer, even if the information is not job-related, as long as the same information is requested of all applicants. That employer right is given by statute. See 42 U.S.C. § 12112(d) (1994 & Supp. II 1996). For discussion of the 1995 EEOC interpretation of the ADA regarding genetic disabilities, see Alper, supra note 63, at 167-68; Mehlman et al., supra note 46, at 395.
covers, as disabled, those persons who might be perceived as having a genetic disability.\textsuperscript{72} State discrimination statutes and case law restrict workplace medical screening and certain uses of medical information, but few laws that explicitly regulate genetic information have been enacted to date.\textsuperscript{73} Subsequent court cases, Congressional amendments to the ADA, or legislation such as the Genetic Privacy Act may well change the circumstances in which medical data can be collected and circulated legally.\textsuperscript{74}

For EEOC's former position on asymptomatic individuals under the ADA, see generally Letter from Phillip B. Calkins, Acting Director of Communication and Legislative Affairs, EEOC, to Patrick Johnson, Senate of the State of California (June 23, 1993); Letter from E.M. Thornton, Deputy Legal Counsel, EEOC, to Paul Berg and Sheldon Wolff, Co-Chairmen of NIH-DOE Joint Subcommittee on the Human Genome (Aug. 2, 1991); Letter from Ronnie Blumenthal, Acting Director of Communications and Legislative Affairs, EEOC, to Rep. Bob Wise, Chairman, House Subcommittee on Government Information, Justice, and Agriculture (Nov. 22, 1991).

\textsuperscript{72} See, e.g., Alper, supra note 63, at 169. In Bragdon v. Abbott, 118 S.Ct. 2196 (1998), a woman with asymptomatic H.I.V. infection was refused care in a dentist's office. \textit{See id.} at 2198. Ruling in favor of the woman, the Court decided that people with asymptomatic H.I.V. infection can be covered by the ADA's definition of disability. \textit{See id.} at 2207. The Court did not rule that the ADA automatically covers H.I.V. infection, however. (Even before this decision, people with full-blown AIDS have been considered disabled under the ADA.) This was the Court's first substantive review of the ADA. The Court's analysis suggested that the ADA would also cover other asymptomatic conditions that some lower courts have regarded as beyond the scope of the ADA. \textit{See} Linda Greenhouse, \textit{Ruling on Bias Law: Infected People Can Be Covered Even with No Symptoms Present}, N.Y. TIMES, June 26, 1998, at A1.


\textsuperscript{74} The Genetic Privacy Act, originally formulated by George Annas, is promising as a comprehensive effort to protect individuals from unauthorized analysis of their DNA. \textit{See generally} GEORGE J. ANNAS ET AL., \textit{THE GENETIC PRIVACY ACT AND COMMENTARY} (1995). A version of the Genetic Privacy Act has been proposed in the Maryland Senate, with important genetic privacy provisions. \textit{See} S. 645, 409 Leg. (Md., Introduced 1995). It would, among other things: (1) bar unauthorized disclosure of information resulting from genetic analysis; (2) require that authorization for collection or disclosure of an identifiable DNA sample "may not be coerced"; and (3)
Through information access rules, insurance company policies, and employers' hiring and testing policies, medical information can be used in ways that deepen racial and economic inequality. Thus in airline, chemical, and steel companies, blacks and women who have only recently entered relatively high-paying production jobs have been identified as high-risk. Excluding racial minorities and women from relatively high-paying jobs penalizes economically disadvantaged groups and deepens divisions in society based on race and ethnicity — and on gender, as in the case of fetal exclusion policies. Moreover, workers require that a person to be tested be warned “that access to the results of genetic analysis by insurance companies, employers, or other third parties may occur” if the person tested “authorizes their disclosure” and be told that “the disclosure may lead to discrimination” against him or her. See id. at §§ 4-504(b), 4-505(a)(2), 4-505(a)(8). For a discussion of the Genetic Privacy Act and its counterparts, see generally George J. Annas et al., Drafting the Genetic Privacy Act: Science, Policy, and Practical Considerations, 23 J.L. MED. & ETHICS 360 (1995); Neil A. Holtzman, Panel Comment: Attempt to Pass the Genetic Privacy Act in Maryland, 23 J.L. MED. & ETHICS 367 (1995); Michael M. J. Lin, Conferring a Federal Property Right in Genetic Material: Stepping Into the Future with the Genetic Privacy Act, 22 AM. J.L. & MED. 109 (1996).


77. The fetal exclusion policies many companies have followed are an important example of a discriminatory screening approach. These policies, in which women have been barred from particular jobs because of possible fetal damage, were most pervasive in companies in the 1980s through the early 1990s, following concern over reproductive effects, adverse publicity, and lawsuits over fetal damage. In a 1991
also have little access to the aggregate medical data that may show specific ethnic groups being disproportionately screened out. This makes it even more difficult to recognize the social dimensions of screening, distortions that go beyond issues of medical risks to individuals.

The ADA affects workplace medicine in significant ways. It already offers employees more protection in companies that formerly did pre-employment physicals. It also may prove to be a boon for physicians who serve corporations by determining whether or not individual employees can perform specific jobs. Physicians help companies comply with the ADA in job descriptions, in hiring processes, in the matching of abilities with job requirements, and in deciding what accommodation is necessary for people with potentially limiting medical conditions. They have a major role in selecting workers because they make fitness determinations. The prospect of numerous discrimination suits under the ADA makes doctors and managers more careful about screening out employees who may not be fit for a particular job because of possible health risks in the future. That requires greater sophistication and is not as easily farmed out to a clinic (as employers can do for treating injuries). The ADA may thus strengthen corporate medical programs. A utility company physician said:

A lot of decisions concerning "Is this person able to do that job?" are medical. Before the ADA, a corporation could just have applicants fill out a sheet with 12,000 disabilities: "Have you had this?" If they had, just tell them, "No, thank you" and get them out. You can't do that anymore.

case, the Supreme Court ruled that banning all fertile women from particular jobs because of possible fetal damage is unlawful discrimination under Title VII of the Civil Rights Act of 1964. See Int'l Union, United Auto., Aerospace, & Agric. Implement Workers of Am., UAW v. Johnson Controls, Inc., 499 U.S. 187, 200 (1991). The Johnson Controls Company, which manufactured batteries, had a policy of excluding fertile women from jobs with exposure to lead, in the belief that lead exposure to working women may damage fetuses and that the company could be sued for fetal damage. See id. at 191-92. The employer excluded all women except those who showed proof of surgical sterilization. See id. at 192. Some employers continue their policies of excluding individuals they consider high risk — even in the face of discrimination suits — because they still fear costly third-party suits on behalf of those damaged by work exposures. The Johnson Controls decision failed to deal with companies' vulnerability to third-party suits and thereby left many companies that formerly had fetal protection policies in a quandary. See United States Supreme Court Official Transcript at 38, Johnson Controls, Inc. (Case No. 89-1215).
Although the ADA's requirements for medical assessment increase the need for occupational medical services, they do not necessarily require in-house corporate physicians, and may promote off-site corporate medical screening instead.

In some industries, labor market demands limit the ability of companies to refuse to hire. For example, the textile industry has not stopped hiring smokers, even though corporate officials know that smoking amplifies the effect of cotton dust and smokers are easy to detect (through simple observation). A national textile union official stated:

Half the work force in textile industry areas in North and South Carolina smoke like fiends, yet companies keep hiring them. They talk about moving to a no-smoking policy in plants, but not hiring smokers would make them unable to fill their basic staff needs. These are real labor-market problems. They need every dependable worker with qualifications who can do the job.

Employers try to manage costs by identifying employees and applicants as potentially expensive or inexpensive. Companies may save money by putting people on weight-reduction programs and lowering their blood pressure, but the incentive to screen arises more from the cost of a few expensive illnesses. In view of the huge cost of procedures such as liver or heart transplants, employers increasingly direct individual employees to lower-cost health-care providers, thus allowing considerations of cost to prevail over those of quality.

Workers may be considered high risk for health-care costs because of their spouses or dependents. As this chemical company physician explained:

The biggest expenses are from spouses and dependents and we don't examine them. Here I think I'm employing all these Jack Armstrong wonderful guys, and their teenage kid winds up in a

psychiatric hospital for a year and costs us a quarter of a million dollars.

Companies that self-insure have reason to be particularly interested in medical information, because they are exempt from state regulation of how they manage their benefits and treat employees.\textsuperscript{79} Even if employers do not use medical information as a reason to bar high-risk workers outright, they can use it in other ways that effectively exclude people. They can modify their insurance coverage to charge prohibitively high rates, or they can exclude individuals with special risks from medical coverage, as in \textit{McGann v. H & H Music Co.}\textsuperscript{80} In \textit{McGann}, a small music company in Texas decreased the lifetime medical benefit for AIDS-related claims from \textdollar{}1,000,000 to \textdollar{}5,000 after they became self-insured, thus denying benefits to McGann, a man with AIDS.\textsuperscript{81} In finding against

\begin{quote}
79. The Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. § 1144(a) (1994 & Supp. II 1996), exempts self-insured employers from state regulations and laws, such as those regarding minimum required benefits and antidiscrimination provisions, covering health and retirement plans. Under ERISA, self-insured employers may eliminate or modify their medical benefits for particular medical conditions. \textit{See id. See generally H. Ostrer et al., Insurance and Genetic Testing: Where Are We Now? 52 AM. J. HUM. GENETICS 565 (1993); Rosenblatt et al., supra note 11, at 159-292, 1001-37. The ERISA rules were originally designed to protect benefits and pension plans from mismanagement by companies. So Congress set up regulations for managing certain company pension plans. \textit{See Rosenblatt et al., supra} note 11, at 159-60.


81. \textit{See id. at 408. In McGann, a man with AIDS filed suit under § 510 of ERISA, 29 U.S.C. § 1140 (1994 & Supp. II 1996), after he made claims and collected payments from his employer's commercial insurance plan. \textit{See id. at 403. The company became self-insured and then decreased the lifetime medical benefit for AIDS-related claims from one million to five thousand dollars. \textit{See id. ERISA provides, in part:}}

\begin{quote}
It shall be unlawful for any person to discharge, fine, suspend, expel, discipline, or discriminate against a participant or beneficiary for exercising any right to which he is entitled under the provisions of an employee benefit plan . . . or for the purpose of interfering with the attainment of any right to which such participant may become entitled under the plan.
\end{quote}

29 U.S.C. § 1140 (1994 & Supp. II 1996). The \textit{McGann} court held that § 510 of ERISA "does not prohibit an employer from electing not to cover or continue to cover AIDS, while covering or continuing to cover other catastrophic illnesses, even though the employer's decision in this respect may stem from some 'prejudice' against AIDS or its victims generally." \textit{McGann}, 946 F.2d at 408. The court held that the "alleged
McGann, the court ruled that self-insured companies can change their benefit plans post-facto because of an employee's claim or test results, provide inferior benefits, or charge very high rates to anyone with a high-risk profile.82

The ADA has no effect on the post-facto McGann scenario, because of the ADA's permissive approach to employer practices after the employment offer. Employers may change their coverage the same day they receive an employee's claim in the mail. They can argue that they never offered permanent benefits, and that providing one high-risk employee with the benefit they initially promised would hurt all the other employees. Companies that self-insure argue that their responsibility is to make a profit for their shareholders.83

Despite the tangle of laws, possible jury trials, and conflicting scientific evidence, employers and physicians continue to differentiate among workers according to each employee's health risks. They screen for characteristics that appear to make individuals more likely to develop diseases that could cost the company more than employee wages. More testing is available because technologies have improved, but employers perceive that they cannot easily restrict a person, even if they identify a special risk, because of government regulations and case law that limit company testing practices.

Screening employees as a primary control strategy becomes less economically attractive to employers if employers must absorb the costs of screening and employee lawsuits. A corporation's legal liability could increase, for example, if workers learned that employers knew specific individuals were susceptible to harm but failed to modify working con-

discrimination is illegal only if it is motivated by a desire to retaliate against an employee or to deprive an employee of an existing right to which he or she may become entitled." Id. McGann undercuts the traditional function of insurance as spreading risks and enables companies to avoid high-risk individuals after they identify them. For discussion of insurance companies' efforts to avoid insuring individuals they consider high-risk, see generally Kathy L. Hudson et al., Genetic Discrimination and Health Insurance: An Urgent Need for Reform, 270 SCi. 391 (1995); Robert Pear, Health Insurers Skirting New Law, Officials Report, N.Y. TIMES, Oct. 5, 1997, at A1. See also NIH-DOE WORKING GROUP ON ETHICAL, LEGAL, AND SOCIAL IMPLICATIONS OF HUMAN GENOME RESEARCH, GENETIC INFORMATION AND HEALTH INSURANCE, NIH Publication No. 93-3686 (1993).

82. McGann, 946 F.2d at 408.

83. Although companies have a responsibility to seek profits for their shareholders, employers need not make a profit on their employees or on each person they employ.
ditions. Thus in order to reduce their need to defend against litigation or internalize the costs of screening, employers may choose to avoid finding out who is high-risk.

VI. IMPLICATIONS FOR SOCIETY AND SOCIAL POLICY

Alternative policies that could encourage the use of medical information in more protective, equitable, and rational ways should have three main goals: (1) creating organizational incentives for more individual accountability and social responsibility; (2) separating health services from employer control; and (3) promoting effective preventive health measures to reduce long-term corporate and social costs.

A. Legal and Social Policy Protections and Organizational Incentives

Organizational incentives could encourage professionals and employees to speak up in organizations, government, and in public forums; and those who do so should be protected against retribution for engaging in socially responsible conduct. Managers company-wide should be held accountable for health and environmental protection. Professional societies and laws can be used to increase both appropriate loyalty and individual accountability among company professionals for hazards and errors. For example, the Corporate Criminal Liability Act of California provides for significant fines and even the imprisonment of managers who violate the law, such as those who are found responsible for workers' deaths.\textsuperscript{84} Extending medical malpractice to corporate professionals can serve a similar purpose. The threat of lawsuits tends to supplant strict regulation in many arenas and can be very useful in expanding individual accountability, getting companies to curtail hazardous conditions, and promoting beneficial social policies.

Physicians generally frame their relations with patients in terms of personal trust and integrity, downplaying any power problems. After having been socialized to believe that they have extraordinary power in society, they are beginning to realize how little power they have when they are caught between tectonic shifts of the law, insurance companies, large corporations, powerful medical organizations, and the government payers that largely control medical services. When workers fear getting fired, have no employee organization to appeal to, and see doctors use

\textsuperscript{84} See \textit{CAL. PENAL CODE} § 387 (West Supp. 1999). \textit{See also, supra} § II.
Liability of Company Doctors

information against them, it matters little how friendly the company physician is. Good doctor-patient relationships depend on the larger corporate and social structure. In theory, employer demands could actually make it easier for physicians to function in the corporation, because they could advise their employers on how to respond to employee pressure. But rather than pursue that course, most doctors focus on demonstrating their integrity and trustworthiness to employees while maintaining the illusion that they must protect employees' health on their own. Physicians find it hard to admit that laws and corporate structures largely govern their relationship with patients, for that would seem to strip them of their power — an assault on self-image that few people — especially doctors — can willingly tolerate. Still, doctors could conceivably seek workers' empowerment as being in their own professional interest rather than merely seeking to apply their own power to employees.

Employees could strive to improve their own health by gaining a greater ability to identify health hazards and influence their working conditions. Company medical programs could be made responsible to the work force, as well as to the employer, through joint labor-management committees like those set up by General Motors and the United Auto Workers. Union membership is small and declining — now at its lowest point since the 1930s; only ten percent of the private sector is unionized, which of course limits possible union influence on company policies. Unions also have been constrained by limited information and lack of power under restrictive labor laws. Moreover, basic economic issues take precedence over issues of health and employee participation, especially in periods of layoffs. Nonetheless, or-

85. The U.A.W. and General Motors provided a good model with their UAW-GM board that meets with scientists acting as adjudicators, information specialists, and facilitators to try to address workplace concerns jointly. The U.A.W. has been particularly successful in negotiations with major auto companies over joint training funds and other issues. OSHA could mandate joint labor-management health committees and occupational medical services for employees nationwide.

86. In 1997, 9.7 percent of private sector U.S. workers were union members; 10.6 percent of private sector U.S. workers were covered by unions. See BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES, THE NATIONAL DATA BOOK 444, Table No. 712 (118th ed. 1998). Union membership for public sector workers is higher: in 1997, 37.2 percent were union members and 42.3 percent were covered by unions. For wage and salary workers overall in 1997, 14.1 percent were union members and 15.6 percent were covered by unions. See id.
organized labor in heavily unionized industries and workplaces has pressed for specific services, a prohibition on certain tests, more access to information, expanded employee representation, and greater independence of company doctors. Along with public interest and community groups, they have tried to counteract business's flexibility, wealth, and power in a globalizing economy. However, gaining influential transnational resources is overwhelmingly daunting for citizen groups. It is thus difficult to be optimistic about the prospect of a globalized counterweight to corporate power and control. Much depends on the strength and vigilance of community and labor organizations in demanding that corporations change their practices.

B. Separating Health Services from Employer Control

The rapid expansion of medical information presents many opportunities for its inappropriate or harmful use by company physicians, employers, and insurance companies. Individuals should have more rights over access to test results than current laws provide. People also ought to be fully informed about risks, the nature of tests, who will get the results, and what impact they may have. Most employees now have the right to obtain company medical records if they request them, so they can find out what tests have been conducted. Since misrepresentations of information can have devastating consequences for employment, insurance, and stigmatization, people should be able to learn of inaccuracies or unfair uses of their medical records. They need information on tests and health hazards collected by agencies independent of their employer, so that they can evaluate their employer's warnings or assurances more effectively. And they need trustworthy information about risks to individuals as well as aggregate data that may reveal patterns of health hazards and groups screened out.


Physicians' services to employees are likely to improve if control over them is separated from employment. They could be contracted out to a third party that both management and employee representatives choose. Effective regulatory power can serve a critical function in protecting health, but regulatory oversight of employee health policies has been limited by cutbacks in enforcement and by a slow and cumbersome process of setting standards. Government should strengthen occupational health standards and provide greater support for training occupational medicine physicians, thereby encouraging the growth of a professional base that can advise companies on reducing work hazards. Because most physicians get little medical school training in occupational health, regional resource centers staffed by board-certified occupational physicians could support them in many ways: by offering health consulting services, developing surveillance programs, dispensing information about work hazards, offering physical exams, and evaluating individuals who might be at special risk. These centers could more credibly study hazards and protect medicine from the constraints imposed by employers whose main concern is maximizing company profits. Companies and the government would jointly pay for the professional services of these centers; neither of them would employ doctors themselves or retain a legal right to see any of the center's medical data about employees. Such a system would allow doctors to address health risks without worrying that employers could question their allegiance or threaten to fire them; it could make both research and clinical practice more independent of management control.

C. Promoting Effective Preventive Health Measures

Prevention must be institutionalized in society as well as in the workplace through case law and regulations maintaining standards in business. Preventing illness is far less costly in human and dollar terms than acting after the fact. Effectively removing health hazards that employees perceive could also increase job satisfaction, make the workplace less stressful, and promote worker health generally. At the very least, rec-

89. For discussion of associations between job satisfaction, control over work, and health outcomes, see MACDONALD & ROMAN, supra note 69; ROBERT KARASEK & TORES THEORELL, HEALTHY WORK: STRESS, PRODUCTIVITY, AND THE RECONSTRUCTION OF WORKING LIFE 83-117 (1990). Low levels of control over work processes, along with performance demands of jobs that exceed individual and social resources for accomplishing the required tasks, increase job stress and are associated
ognizing ways in which adverse working conditions contribute to job dissatisfaction and disease could be a first step toward beneficial alternative policies.

Although gaining support for preventive measures is difficult, corporations should be given incentives to adopt measures that are cost-effective over the long term as well as incentives to consider long-term needs of corporations and society in evaluating managerial job performance, including the need to prevent illness and death. The goal should be to promote more thorough consideration of the costs of workplace practices that employees and the public bear. Physicians tend to give little consideration to these social costs when they tailor their decisions to fit their allegiances within and outside the corporation. Social policy and the law could help insure that their employers, rather than individual workers or society as a whole, would bear most of the financial burden of occupational disease.

By seeking to identify individuals with specific risk factors, company physicians implicitly argue that all others are safe, so that no further substance regulation or change in company policies is needed. Workplace screening should not gain support without careful examination of the evidence. In addition, to guard against individuals being labeled and penalized as high-risk, anti-discrimination laws should extend to employees' pre-existing health conditions. The search for high-risk indi-

90. In Moral Mazes, Robert Jackall analyzes what he calls the bureaucratic ethic of decision making by corporate actors. See generally ROBERT JACKALL, MORAL MAZES: THE WORLD OF CORPORATE MANAGERS (1988). What he calls a problem of bureaucracy, though, is really insufficient bureaucracy and quasi-feudal loyalty to employers. Corporate actors generally view their work not through a fixed bureaucratic lens of rules and procedures as much as through a changing web of allegiances within and outside the corporation.

91. Although, according to EEOC guidelines, the ADA now covers individuals perceived to be susceptible to illness and not just those who are symptomatic, case law has yet to determine whether and under what circumstances an employer must accommodate someone who may be at special risk in the workplace. Government regulations could follow the lead of the OSHA lead standard, 29 C.F.R. § 1910.1025 (1998), which provides that if individuals are at special risk, they could be transferred temporarily to other jobs but retain their wages and seniority. See id. Companies could offer individuals at risk an opportunity to move to an equal-status job in another area without any loss of pay, but companies that are small or in a downsizing mode would have difficulty doing this. For discussion of state laws that bar genetic discrimination and proposed federal legislation, see Gostin, supra note 73, at 141-42;
viduals should not limit the use of effective strategies for reducing environmental hazards and disease that are already widely recognized but underfunded. Investing in improved management policies and working conditions could deter disease more effectively than broad employee testing.

If risk is conceptualized in terms of workplace hazards that all exposed workers confront, then employers should tighten engineering controls, monitor exposure hazards, replace hazardous products, and collect scientific information on risks to populations; only such efforts can reveal whether working conditions are indeed safe. Finally, national health coverage and a single-payer health-care system of government-financed services could mean that individuals and groups considered high-risk would no longer be denied health coverage or affordable medical care. Screening under such a system would have fewer adverse effects on those considered high-risk, for they would have less to fear about losing access to medical treatment.

CONCLUSION

Current conflicts over whether individual workers, corporations, or society as a whole should bear the work-related costs of chemical exposure risks and medical care are likely to expand over the next decade. The initiation of new health and employment policies that could curtail health hazards and the detrimental uses of medical information will likely involve legal challenges, government regulation, education, and collective bargaining. Problems of health hazards, privacy, and discrimination will not be solved without adequately addressing the power


93. Despite political obstacles to enacting a national single-payer health-care system, political leaders could overcome opposition to reform by educating the public about the expense, the gaps in coverage, and the inequities of the current health-care delivery system. For discussion of insurance companies' efforts to avoid insuring individuals they consider high risk, see Pear, supra note 81, at A1.
dynamics, laws, and economic interests that affect the work of corporate professionals.

Most theoretical and empirical studies approach professionalization and corporatization as if they were two very different and conflicting processes. But in fact, the professionalization process has oriented professionals to work in organizations, often large bureaucratic organizations. Professionals no longer identify only with their professional reference group; they also identify strongly with, or acquiesce to, the pursuit of corporate goals. Corporate pressures on physicians have intensified over the past four decades, as lawsuits, publicity about chemical risks, government regulation, and higher insurance and workers’ compensation expenses have raised employers’ costs. Professionalization and corporatization are intensifying simultaneously, and in many ways reinforce each other: corporate professionals are becoming more professionalized even as they cede greater control to their employers.

As we have seen, the perceived threat of legal liability is double-edged. It diverts resources away from hazard prevention and into defensive actions against perceived litigation risks, such as hiding information about hazards. It leads corporate professionals to respond to it through preventive law rather than preventive health. But the perceived threat of liability also provides incentives for managers to invest in engineering controls and safer practices, to warn workers of health risks proactively, and to strengthen physicians’ leverage with management when they advocate more health-protective measures.

The legal environment defines company physicians sometimes as principally corporate employees but at other times as autonomous professionals. Company physicians now know they can be sued individually, held personally responsible for their actions, and even face criminal charges against them as individuals. This perceived threat reinforces professional standards and bolsters independent professional judgment in corporations.

The dilemmas that corporate physicians face concerning liability and

94. On liability related to occupational health, see BUSINESS LAWS, INC., OCCUPATIONAL SAFETY AND HEALTH LAW (1994); WOLKINSON & BLOCK, supra note 63; Bixby, supra note 18. See also General Dynamics v. Superior Court, 876 P.2d 487 (Cal. 1994) (upholding a cause of action for wrongful discharge by an in-house corporate lawyer who claimed that the employer made illegitimate demands that conflicted with the mandatory ethical norms in the California Rules of Professional Conduct).
the treatment of workers are in part ethical problems. The conflicting organizational demands from being both a corporate employee and an autonomous professional constitute a social and structural problem rather than a problem of individual ethics. Professionals can be well-intentioned and conscientious, but if companies employ them, they usually end up conforming to the corporate culture and advancing the corporation's ends — or not keeping their job unless they can convince the management to alter its practices. Doctors become involved in such activities as determining fitness for work and reducing employer liability not because they have "bad values," but because they are doing the job they were hired to do. Thus, the legal and social context of the workplace and the position of individuals within the organization's power structure largely determine that company professionals will be pro-management. Bringing about effective policies therefore requires increasing the power of corporate professionals and employees to protect the long-term interests of the company, its employees, and society.

APPENDIX ON STUDY DATA AND METHODS

The principal data and methods used in this research are 100 in-depth interviews and other fieldwork, documents, cases, and an analysis of historical and statistical materials.

I. INTERVIEWS

A. Interview Informants

This study involved conducting semi-structured, in-person interviews with 100 people across the country, many of whom are key informants concerned with occupational medicine. The 100 informants are from four groups: (1) 60 company physicians and medical directors in companies with in-house medical staffs; and (2) 40 individuals with particular expertise in corporate medicine, drawn from three groups: (A) government officials concerned with occupational medicine or charged with employment and health policy making; (B) labor officials knowledgeable about employee health risks and worker selection; (C) university clinic physicians and scientists, representatives from medical and trade associations, attorneys, and others outside government agencies and corporations who specialize in occupational health. Scientists who provide medical research or screening services to employers are of particular interest, as are physicians who direct occupational medical resi-
dency programs and attorneys involved in litigation over medical screening.

In complex and controversial areas such as this, relying on survey research as the major source of data certainly seemed out of the question because it would have missed important information. Those to be questioned should be allowed to describe their employment practices in detail without being limited to multiple-choice or otherwise brief, easily quantified responses. They also should be able to discuss their experiences and perspectives in ways that go beyond what they might say in a public forum. Thus, this study committed me to the labor-intensive enterprise of interviewing a broad range of people in person with flexible interview guides, studying documents, and observing people functioning in their daily work in order to capture the complex reality of their social world. This approach allowed me to assess the significance and meaning that social actors give to corporate professional work and the relationship between their perceptions and the actual workplace practices.

Large manufacturing corporations that confront significant medical hazards in their line of work typically retain occupational physicians on staff. Corporate informants were primarily from large firms in the chemical, oil, automobile, metals and mining, pharmaceutical, airline, telecommunications, aerospace, transportation, utilities, computers, and electronics industries. These companies generally have substantial medical programs, more sophisticated technologies, and extensive experience with health hazards. They also are heavily involved in the medical selection of workers. The issues of health effects from hazardous chemicals and the identification of high-risk groups have also been most salient there. Further, the toxic exposure problems in these industries are in many cases "upstream" and therefore magnified versions of exposure in the industries they supply. In addition, physicians in smaller firms and other types of corporations and government organizations using medical information also were investigated to some extent for comparison. As

---

95. For discussion of intensive interview data and analysis, and the constructed social world they can illuminate, see generally JOHN LOFLAND & LYN H. LOFLAND, ANALYZING SOCIAL SETTINGS (2d ed. 1984); ELLIOT G. MISHLER, RESEARCH INTERVIEWING: CONTEXT AND NARRATIVE (1986); ANSELM STRAUSS & JULIET CORBIN, BASICS OF QUALITATIVE RESEARCH: GROUNDED THEORY PROCEDURES AND TECHNIQUES (1990).

96. Physicians were also selected from other industries, including textiles, banking, publishing and broadcasting, consumer products, conglomerates, retail sales, financial services, and other manufacturing and service corporations.
explained earlier, the principal theoretical interest and research focus of this study is large non-medical corporations that employ medical professionals, not corporations such as hospitals that revolve around physicians' professional activities.

Physicians who are corporate medical directors offered a special perspective stemming from their management of other company physicians, their relationship with other high-level corporate managers, and their typical heightened visibility attained through participating in medical associations and testifying at government hearings.

I interviewed former in-house physicians who now do consulting for companies as well as in-house physicians who had worked as consultants or contractors in occupational medicine. I also talked with physicians with experience in the military and HMOs for comparison to gain insight into their work structures and processes.

The interview informants who were not company doctors were knowledgeable about occupational medicine practiced in corporations. They were well acquainted with the work of corporate physicians, though from vantage points different from that of the company doctor.

The individuals to be interviewed were selected from a national population, to allow for regional variation and for interviewing federal officials and major informants located in many other states. Approximately half of the company physicians and other informants were from the Eastern half of the country and approximately half were from the Western half of the country, with the South and Midwest represented along with the East and West coasts. Informants were selected so as to achieve a broad regional and industrial distribution across the country, which the research design required for analyzing the data. The age range of physician informants both inside and outside corporations also was wide, reflecting the populations they represent. I interviewed people

97. Medical and trade association data on company physicians (such as from ACOEM) provided overall information and facilitated the selection of physicians to be interviewed. The selection method for this study yielded a more informative, broad, and truly representative group of informants than could have been obtained by drawing a random sample from existing data sources. No national sampling frame adequate for this study existed for drawing a random sample of informants. For example, medical associations do have data on their physician members, but these data omit too many of the types of physicians in large companies that are the focus of this study. Further, medical association data do not offer us information on the variables (such as regarding training and circumstances of corporate employment) that the study uses and that informed the selection of informants.
fresh out of residency programs along with physicians who have practiced in corporate medicine for at least ten to twenty years and people close to retirement. The sexual and racial composition of physician respondents is heavily white males, reflecting the population of occupational physicians that corporations employ. Overall, I chose informants so as to ensure breadth in type of organization, company position, and perspective. I chose non-physician informants in such a way as to attain diversity within the categories of informants, including variation by region and organization represented.

I interviewed people in a broad range of industries. Approximately two-thirds of the physician respondents and non-physician corporate personnel were selected from Fortune 500 companies in chemical, oil, metals and mining, automobile, pharmaceutical, aerospace, telecommunications, airline, transportation, utilities, computers, and electronics industries. In addition, approximately two-thirds of the labor officials were from these industries. The remaining third of the physician and labor individuals were from smaller companies in those industries and from other employing organizations.

Typically, one physician was selected from each company, but more than one physician occasionally was selected from a company, especially if the physicians were from different geographical regions of the country in a large company and were widely separated by length of employment in the firm and in occupational medicine.

Individuals to be interviewed were identified through the professional literature and through methods of key informant referral used to achieve the demographic, industry, and regional distribution that the study sample and research design defined. Names of most individuals to be interviewed were obtained from publications and documents such as articles, legislative hearings, professional publications, and conference proceedings.

Names of corporate medical directors were readily available through medical and trade association publications. Other physicians generally provided names of some specific physicians in the firms selected for study. Referring physicians were from professional societies, corporate

---

98. Seven of the 60 company physicians (approximately 12 percent) are women.

99. While names of most individuals interviewed were obtained from documentary sources, other names were obtained from contacts familiar with the arena of occupational medicine.
Initially contacted the individuals interviewed directly by phone or letter. The majority of the corporate, labor, academic, legal, and government personnel selected for interviewing were leaders rather than lower-ranking members of their organizations. These informants were prominent in their own fields and known for their expertise in occupational medicine. For example, those interviewed include the directors of occupational health agencies and programs, labor officials responsible for health and safety in international unions, directors of university occupational medical clinics, legal scholars specializing in corporate medical liability and workplace health issues, the president of a national occupational medical association, and the environmental affairs director of a major chemical company. The research design decision to interview more leaders than lower-ranking members of organizations reflected a desire to find particularly well-informed respondents—individuals who were not only highly knowledgeable about occupational medicine and the conditions affecting it but also were aware of the range of perspectives on it in their own and other organizations.

The comparative design of this research ensured that interview informants were acquainted with the concerns of this study from a range of important vantage points. For example, they offered varying perspectives on medical information as it is used in large corporations.

The research design identified individuals to be interviewed because of their structural location in specific positions and organizations. Individuals to be interviewed were chosen to be generally typical of those in the same types of positions and organizations. The reasons for choosing these informants stemmed from previous empirical research and from their structural location in specific key positions. I chose individuals to be interviewed for sound methodological and sociological reasons, not because individuals fell into arbitrary categories that seemed plausible or because they offered to be interviewed due to their strong views about occupational medicine.

B. Interview Questioning

Initial and follow-up interviews were conducted between 1988 and 1998, most of them after 1991. Interviews generally lasted from one to three hours and some of them extended over more than one session. They were conducted in an office, home, or another location, as the interviewee preferred.
Confidentiality of informants' identity was maintained, in that their names were not used in the analysis and presentation of the findings, except for those individuals who wished not to be interviewed anonymously and formally allowed their names to be revealed. The position or affiliation of individuals who are quoted by name or cited anonymously is generally the one they held at the time of the statement.

Significant problems of access to corporate officials and professionals did not occur in this study. Previous research had led to a familiarity with the field settings and network of physicians, corporate officials, and other contacts who facilitated access to a broad range of informants. As in earlier research projects using interviews, the individuals interviewed for this study were generally cooperative and willing to talk at length. Prior interviews with occupational physicians—along with corporate, government, and labor officials—indicated that they generally speak knowledgeably, often eloquently, about the changing conditions affecting their work, as well as their own views and decisions.

The interviews were focused and semi-structured. To prepare for the interviews, I examined documents and publications for relevant data and leads. I developed and revised interview guides with detailed questions after exploratory discussions with informants. I questioned the individuals in areas such as: (1) their background and experience in occupational medicine and corporate employment; (2) their knowledge of the ways in which medical information has been applied and employees with health risks have been identified; (3) their views of the broader arena of health and employment practices, as a context for corporate medical professional work; (4) cases of workplace medical screening; and (5) legal dimensions of health risks and workplace practices. Individuals described their general perspective and their own experience. Actual cases that physicians discussed yielded more valuable data on decision-making than a discussion of hypothetical cases and imagined consequences would have. I analyzed major cases of corporate medical practices that emerged from the research.

Non-physician informants were questioned regarding the same arenas of decision-making, social consequences, and underlying structural factors as the physician respondents, but from the perspective of the individual's own area of expertise. In addition to the questions similar to those asked of physicians, union officials were asked about union pressures on medical professionals and the experience of the union with company physicians, medical association personnel were asked about
professional influences on company physicians and the experience of the association with company physicians, and non-physician corporate personnel were asked about corporate influences on company physicians and their experience with company physicians.

Interviews with directors of occupational medicine residency training programs around the country provided insight into the skills, training, and goals of physicians who join corporations. They also illuminated the perspective of doctors who joined consulting companies, government, and universities. In addition to the program directors, I interviewed many doctors who teach or otherwise contribute to the residency programs.

Interview transcripts provided crucial detail and wording accuracy that was important to this research. The data could be analyzed repeatedly to discover the existence of otherwise unnoticed phenomena and verify the existence of suggested patterns. Thus, analysis did not depend entirely on what researchers thought was interesting or significant before analyzing the data. Transcripts also facilitated carrying out detailed analysis of the interviews.100

In addition to the 100 interviews, I observed and talked informally with many people at conferences and hearings on occupational risk, at meetings of the doctors' professional organizations, and at a wide range of workplaces. This field research was a valuable supplement to the data obtained in interviews, surveys, and documents. It offered insight into the people being studied and provided telling details from their daily work environment and interaction with others at meetings.

This study drew from existing survey data on company policies, medical screening, and risk perspectives.101 National opinion polls and surveys from medical and trade associations offered valuable data. Medical associations collect data from their members, just as trade associations collect extensive data from their member company officials and corporations. For example, the American College of Occupational and Environmental Medicine conducts surveys on member physicians, occupational medicine, and screening programs related to this study. Much of this information is summarized in the Journal of Occupational Medi-

100. Most interviews were taped and transcribed.

101. See, e.g., OTA, GENETIC MONITORING, supra note 76; CYNTHIA DANIELS ET AL., FAMILY, WORK, AND HEALTH (1988); Billings et al., supra note 75 (1992); Frances M. Lynn, The Interplay of Science and Values in Assessing and Regulating Environmental Risks, 11 SCI. TECH. HUM. VALUES 40 (1986).
and other publications; and detailed survey data often are available beyond those that are published. I asked officials from medical and trade associations, government agencies, public interest organizations, and labor unions for survey data of members and of other groups. Legal analysts, medical researchers, and academic scholars have additional survey data relevant to this study. The literature review, document collection, and interviews unearthed new survey data sources and facilitated access to them.

II. DOCUMENTARY, STATISTICAL, AND HISTORICAL RESEARCH

In addition to the interviews, I drew on numerous other sources of data on company physicians, including government documents, conference proceedings, hearing transcripts, employment records and health data, scientific publications, and unpublished documents. I also reviewed historical and sociological materials regarding the history of corporations, medicine, and professions; occupational health practices; employment trends; literature on specific professions such as lawyers and engineers; and legal cases, regulations, statutes, and proposed bills.

Documents provided valuable evidence regarding occupational medicine and corporate professional work. Substantial data on the empirical and theoretical concerns of this study appeared in documents such as unpublished reports and position papers, corporate newsletters, formal employment policies, submitted legal testimony, policy statements, trade association reports, internal memoranda, and press releases. Informants wrote or were quoted in many of these data sources. Some of these documents were readily available to the public. I obtained other documents through people I interviewed, medical and trade association representatives, government officials, attorneys, corporate employees, and other resources. Previous research experience and familiarity with many organizational representatives facilitated access to these documents. As with the interview component of the research, emphasis in the documentary, statistical, and historical research was on large corporations as employing organizations.

III. INTEGRATION OF DATA SOURCES

A major advantage of the research design was that it generated a large volume of comparative data from several types of people. The diverse data sources also allowed me to collect crucial contextual information
pertaining to each interview. This included data on the litigation and regulatory history of the company, the economic conditions affecting it, the location of company medicine in the changing corporate structure, and the work and publications background of the person interviewed. I examined these data sources discussing a particular organization and informant before carrying out the interview, thereby enabling the questioning to be more specific and informed. Linking these other types of information with interview data also provided a deeper understanding of the legal, professional, corporate, and public pressures on decision-making than could be obtained from the interviews alone.

The field research methods of data collection and analysis were those the researcher has developed in several previous research projects and fine-tuned in advanced graduate field research methods courses I have taught. I conducted the interviews, took primary responsibility for analyzing them, and developed theoretical conceptualizations and analyses of the study data. Research assistants carried out specific delimited tasks of data collection and organization.

The systematic field research methods used in this research offered an understanding of the social context of corporate professional work that abstract investigations, literature reviews, or social surveys alone could not adequately provide. In-depth personal interviews combined with documents and field observation provided crucial missing information and enabled us to analyze corporate professional work from a range of perspectives.