

HEALTH / PAC

BULLETIN

Health
Policy
Advisory
Center

Volume 11, Number 6
July/August 1980
HPCBAR 1-44
ISSN 0017-9051

1 Cost-Benefit Analysis:

THE REGULATION OF BUSINESS OR SCIENTIFIC PORNOGRAPHY: Scratch the surface of the chemical industry's call to weigh the cost of government agency regulations on business and you find the desire to be de-regulated—at the consumer's expense.

3 Vital Signs

13 Community Health in a Chicago Slum

THE POLITICS OF HEALTH CARE: A neighborhood's residents find out that their environment, not their hospital, can make them sick or well.

19 Columns

URBAN: The San Francisco Health Care Coalition.

WOMEN: Can't Stop the Abuses.

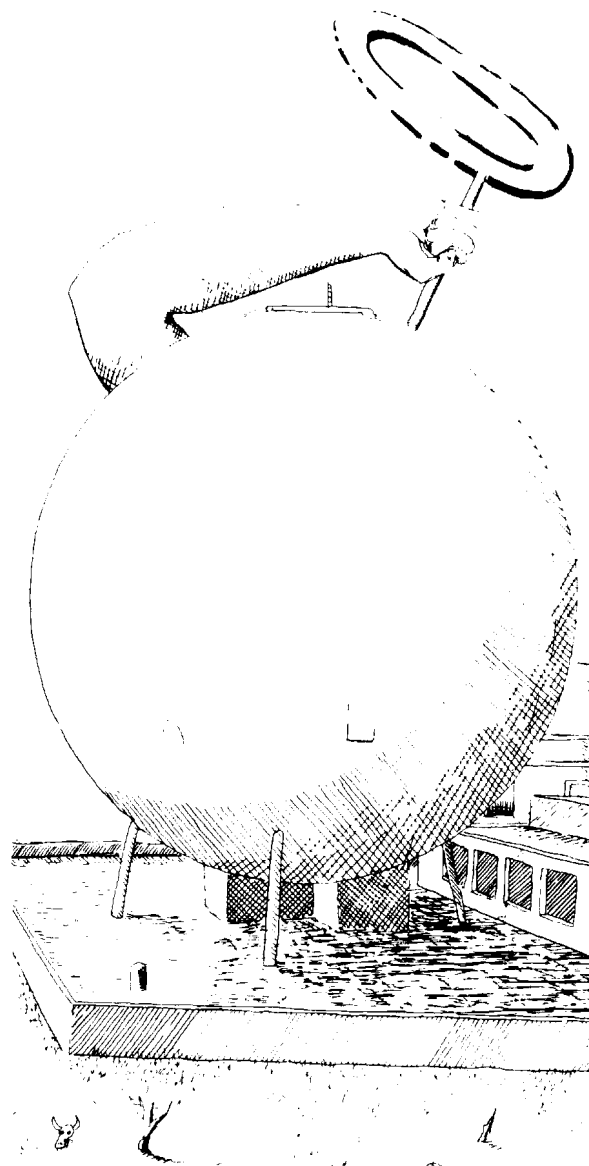
WORK/ENVIRON: "The Deadly Fog"—Agent Orange Update.

42 Index to Volume 11

Cost-Benefit Analysis

THE REGULATION OF BUSINESS OR SCIENTIFIC PORNOGRAPHY

Suddenly everyone is talking about the problem of risk. Popular articles about the "risks of daily life" are appearing everywhere (1); new academic courses are being introduced to ask the "hard questions" about the meaning and acceptability of risk (2); universities throughout the country are cooperating with industry to establish "risk institutes" (3) and the National Science Foundation has launched a new program in "risk analysis" to inquire into how best to measure and assess



risks (4).

The present article does not address the question of risk *per se* but rather asks where this discussion came from. Why are we concerned about it now? What influences are prompting and shaping this discussion, and the institutional responses to it? There are many plausible answers to these questions: the growing awareness of the environmental and health implications of products and processes; the increasing complexity and intercon-

nectedness of all aspects of society; new regulatory mandates which foster increased governmental oversight of industry in the interest of health and safety and environmental protection (and the intellectual and political debates over such mandates); and the development of seemingly sophisticated techniques for assessing consequences of social activity. While all of these answers have some validity, they remain too vague, too general, too impressionistic. In a society such as ours where people talk but get their cues from other mouths, where public discussion is too often orchestrated behind the scenes by advertisers and pollsters and propagandists, it behooves us to try to be more concrete in our answers, to delve below the facile and obvious, the vague generalizations that embellish the very discussion we are trying to account for.

This article does not provide a once-and-for-all, exhaustive explanation as to why we are having this discussion now, in the way we are having it. The article merely focuses upon an important part of the answer, quite possibly the central part, which is rarely acknowledged despite its proportions and significance: the effort of the petrochemical industry to foster and shape the current discussion about risk, through propaganda, the promotion of particular methodological approaches to the problem, and through far-reaching reform of our political, legal, and educational institutions—all of a piece in a sweeping and coordinated counter-attack against government regulation of industry.

Remember when the petrochemical industry promised us that progress was their most important product and that we would all experience better living through chemistry? Well, these industries certainly have progressed, but they have done so by saturating our environment with synthetic substances, many of which have been shown to be life threatening — not life enhancing. Dow, DuPont, Monsanto, Allied Chemical, Union Carbide, Cyanamid, Shell, Mobil, Exxon and others have penetrated the markets formerly

glass, metal and leather. In their place, the petrochemical industry has substituted previously unheard of synthetic petroleum products. As we all know, many of these products have been shown to be carcinogenic and environmentally destructive (5-7).

During the last fifteen years, the environmental and health threats posed by this growing industry have become apparent and a host of new "social" agencies have been established to regulate the non-market behavior of the firms (8,9). The Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA) and the Consumer Product Safety Commission (CPSC) have been empowered by legislation to redefine the acceptable acts of business—

what the industry can and cannot do to the environment, the worker and the consumer.

Taken together, the new regulatory agencies have begun to threaten both the public image of the petrochemical companies as well as their profit margins. In

response, the companies have begun mass propaganda campaigns to offset their poor public image. Mobil spent more than \$3 million on "grass roots lobbying" and advertising aimed against regulation as a threat to "free enterprise" (11, 12); Monsanto has claimed that "Without Chemicals, Life Itself Would Be Impossible", equating their highly dangerous synthetics with "ordinary table salt" (13, 14) and other companies have sought to convince us that their products are benign. Chemistry is life and life is risky is the double message of the industry propaganda (15-20). As quoted in the Rural Advance Newsletter, "The Chemicals we make are no different from the ones God make," Dow assures us; "There is essential unity between chemicals created by God and chemicals created by humans. . . Birds [for example] are extraordinary beautiful chemical products produced by God." Propaganda like this gives Nature a bad name. Not long ago, America's young science-based industrial corporations shared a vision of a better world;

**' . . . Only five per cent of
American factories have any in-
dustrial hygiene programs'**

**—Edward Greer
Attorney**



A HEALTH EDUCATION NEWSLETTER IN FORMATION

Health educators can play a critical role in broadening the prevailing perspective on health promotion, which emphasizes changes in individual behaviors and lifestyles, to include changes in the economic, environmental, political and social determinants of health. Growing numbers of health educators, both trained and self-taught, are independently struggling to develop new methods and goals that reflect this broader perspective.

Because conventional teach-

Vital Signs

ing about health education does not account for the role of societal factors in health and disease, and because change-oriented health educators are working in relative isolation from each other, many health workers have expressed support for the creation of a Health Education Newsletter.

The Newsletter aims to:

1. Provide a forum for concerned health educators to exchange ideas, experiences and resources;
2. Provide an opportunity for critical analysis of specific projects and general trends, in order to lay the foundation for plans to—
3. Build a network of health workers committed to developing a practice of health education aimed at collective action for social change.

The first issue of the Health Education Newsletter, scheduled to be published this Spring, is devoted to a brief description of some of the major topics confronting health educators today. A summary of key questions, readings and organizations is provided for each of the

following topics: community health education, international health education, occupational health education, the women's and self-help health movements, patient education, methodological issues, training health educators and the politics of health education. These topics may then become the major focus of future issues of the Newsletter, depending upon the response of the audience. The Newsletter will depend on articles from readers for future issues. The tentative plan for the next two issues is a Summer issue on occupational health education and a Fall issue on community health education.

Volunteers are needed to help plan, edit and produce the Newsletter. Please send descriptions of programs and organizations, recommended readings, your own thoughts, or suggestions for topics for future issues of the Health Education Newsletter to: Nick Freudenberg, Box 609, Hunter College, School of Health Sciences, 440 E. 26th St., New York, N.Y., 10010; or Sally Kohn, Community Health Participation Program, Montefiore Hospital, 111 E. 210th St., Bronx, N.Y., 10467. To have your name added to the Newsletter mailing list, send a note to either of the above.

Resource

The Carcinogen Information Program, a project of the Center for the Biology Natural Systems, is dedicated to bridging the gap between scientific journals and the public. You can receive *The CIP Bulletin*, the program's monthly fact sheet, at no cost by sending a long, self-addressed, stamped envelope to:

The Center for the Biology of Natural Systems
Washington University
Campus Box 1126
St. Louis, Missouri 63130

THE DOCTOR GAME

The view that hospitals are run like a game is being institutionalized by the Avalon Hill Game Company in a new game called *Intern*. Each player is an intern at a large teaching hospital with four patients: two already occupy beds and two are in the emergency room awaiting admission. According to the company's announcement, "the interns rush madly through the hospital corridors in search of laboratories and treatment facilities, admitting, transferring and discharging patients, all the while answering pages, giving consultations to other interns and handling unexpected emergency complications. . . The patients are all at different stages of diagnosis and treatment, and the fortune of any individual patient (or physician) can be reversed with the roll of the dice." The reward? "As in real life it is not money" (remember, this is a game) but hours that the harried intern can use for sleep or leisure. But power and work satisfaction seem to be the real goals. "In comparison to other role simulation games *Intern* provides the greatest feeling of power as well as satisfaction in winning because of the life-and-death decisions which must be made at every turn," according to a spokesman. The press release makes no mention of reactions by patients. Perhaps they found their treatment in the game not much better than in hospitals. Or maybe they did not like being represented as objects of player decisions and dice.

The game has been backed up by intense consumer analysis that gave it extremely high ratings in player interest, suspense, involvement and satisfaction in winning. In fact,

Health/PAC Bulletin		
Tony Bale	Board of Editors	Glenn Jenkins
Pamela Brier		David Kotelchuck
Robb Burlage		Ronda Kotelchuck
Michael E. Clark		Arthur Levin
Jaime Inclan		David Rosner
Des Callan	Associates	Joanne Lukomnik
Madge Cohen		Peter Medoff
Kathy Conway		Robin Omata
Doug Dornan		Doreen Rappaport
Cindy Driver		Susan Reverby
Dan Feshbach		Len Rodberg
Marsha Hurst		Alex Rosen
Louanne Kennedy		Ken Rosenberg
Mark Kleiman		Gel Stevenson
Thomas Leventhal		Rick Surpin
Alan Levine	Richard Younge	Ann Umemoto

Managing Editor: Marilyn Norinsky
Staff: Kate Pfordresher, Loretta Wavra

MANUSCRIPTS, COMMENTS, LETTERS TO THE EDITOR should be addressed to Health/PAC, 17 Murray Street, New York, N.Y. 10007.

Subscription rates are \$14 for individuals, \$11.20 for students and \$28 for institutions. Subscription orders should be addressed to the Publisher: Human Sciences Press, 72 Fifth Avenue, New York, N.Y. 10011.

Health/PAC Bulletin is published bimonthly by Human Sciences Press. Second-class postage paid at New York, N.Y. and at additional mailing offices.

©1980 Human Sciences Press

Illustrations by Celsi (pp. 8, 31-35) and William Jobson (pp. 1, 7, 13, 20).

the analysis indicates that *Intern* "will be the most successful new board game in the last 50 years." Avalon Hill says it has already been "enthusiastically received by doctors, nurses, medical students and those contemplating health careers." Responses by nurses were not broken out specifically.

Originally designed by doctors for real interns, the \$15 game comes with a set of rules and a glossary of medical terms. Apparently people who think about what hospitals could be rather than passively accept what they are will have to write their own rules.

—George Lowery

POOR PEOPLE MOVE TO CITIES

History is full of such cases of bad timing as Napoleon beginning his 1812 retreat from Moscow in the dead of winter. And politicians and health planners currently trying to cut urban health services for the poor may someday be added to that infamous list of historical mistimings. For the number of poor people living in large cities grew about 1% per year from 1970 through 1977, the last year of available data, even as the total urban population decreased at about the same rate. The result: the relative size of the urban population living below the poverty level rose from 14.8 percent in 1970 to 17.1 percent in 1977, according to Peter A. Morrison, demographer for the Rand Corp., in a Rand Note entitled *The Future Demographic Context of the Health Care Delivery System*.

Morrison also shows that the growth of the urban poor occurred in spite of a nation-wide decline in the percent of people living below the poverty line from 13.8 percent in 1970 to 11.8 percent in 1977 and in spite of the decline in the overall population of large central cities by about 1 percent each year. "The gradual shrinking national pool of persons below the poverty level is

becoming increasingly concentrated in the large central cities," says Morrison.

Putting further pressure on urban health services is the sharp rise in the percent of all families headed by a female with children under 18. While this proportion was rising from 7 percent in 1970 to 9.4 percent in 1977 nation-wide, it shot up even more rapidly in the cities: from 11 percent to 15.8 percent. Typically, these families have lower incomes than families with two wage-earners.

The urban poverty population is also consisting more and more of blacks. Forty-five percent of the 5.0 million poor people living in large central cities in 1970 were black. But blacks comprised 50 percent of the 5.4 million urban poor by 1977. Coalition organizing will therefore continue to be important — especially in areas with large concentrations of undocumented persons, mostly Hispanic, who are farther apart linguistically and culturally from blacks and whites than those two groups are from each other. Indeed, undocumented workers are probably underestimated in the data from the Current Population Reports Morrison uses, and this means that the number and growth of the urban poor are probably underestimated. And while undocumented persons try to

avoid continuous contact with the health care sector, their offspring will place greater demands on such services, because, as citizens, they do not fear detection.

Morrison sums up his concerns in language appropriate for a report prepared for the National Institute of Child Health and Human Development: Of serious concern "is the typically shrinking fiscal capacity with which these cities must meet the health care needs of their increasingly disadvantaged residents. These trends, along with the changing mechanisms for federal funding, are severely compromising cities' ability to serve their needy inhabitants. Increasingly, such cities are witnessing confrontations between large public hospitals forced to close their doors and hostile inner-city residents for whom they are the sole source of care."

These findings raise serious doubts about the rationale used by those planners and politicians who are trying to make sure their prophecies of shrinkage come true. It is becoming more and more evident that data is superfluous to their plans. Perhaps Napoleon projected temperatures in the mid-70s during the winter of 1812-13.

—George Lowery

Media Watch

The nuclear industry has launched a massive public relations campaign all across the nation. Your help is needed to keep track of any pro-nuclear advertisements appearing on the radio, television or in print in your area. Send details about the subject of the ad, the time it ran, the name and address and call letters of the station or publication to the Safe Energy Communication Council Project Access, 1536 16th Street, NW, Washington, D.C. 20036.

If a local TV or radio station offers your organization response time, please accept and immediately contact SECC. SECC can furnish you with professional counter-ads and advice concerning use of the Fairness Doctrine. SECC is a coalition of public interest groups working for safe energy.

HEALTH ADVOCATES: TINKERER OR TAILOR?

It takes great strength and moral courage to be ill these days—to question one's doctor, refuse inappropriate treatment, flex one's (patient) rights and avoid bankruptcy. And to help you through the bureaucracy of modern medical care, Sarah Lawrence College will now provide professional health advocates, also known as patient representatives.

The Masters Degree program in health advocacy will train students in health law, economics and the organization of health systems, as well as the psychology of interpersonal relations. Graduates are to be placed in jobs in a variety of institutional settings: hospitals, nursing homes, health maintenance organizations, schools and clinics. Here they are to serve as "an interface between the needs of the consumers and the capabilities of the health care institution," the Sarah Lawrence promotional literature claims. The course planners anticipate that these new professional advocates will set up ombudsman offices and supervise volunteers in large health institutions and in the

future even represent patients' interests on hospital boards. Joan Marks, the program director, told *Science* that patient reps have been able to improve hospital procedures such as retrieving lost possessions, arranging kosher meals and providing patients with copies of their medical records upon discharge.

Helping the patient feel better about inadequate care is the role of the professional patient representative: the aim is to tailor the patient to fit the health service

There appears to be a potential market for these new professionals among the medical empires. The emphasis in the program is on interpersonal communication: explaining patient needs to hospital staff and hospital policies, procedures and costs to the patient. This improved understanding is expected to have a positive effect by reducing the number of malpractice suits brought by patients. According to Elinor

Miller, assistant director of the Sarah Lawrence program, "Many times patients have a complaint—often a legitimate complaint—against the hospital that can be simply resolved by better communication." The implication is that helping the patient feel better about inadequate care is the role of the professional patient representative. Salaried by the institution, even the most heroic patient reps will have a hard time challenging the cause of such complaints—bad medicine.

Is a new *profession* really needed? The patient advocate role has traditionally been filled by charity workers who were tied to the institution only by the belief that a hospital is a house of good works. Perhaps volunteers have been caught in the growing disparity between the institution's and the individual patient's interest and can no longer be trusted to make the right choices.

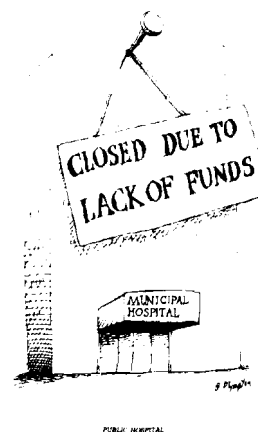
The health advocate is yet the newest addition to the constantly proliferating number of health professionals. Riding on the energy of the consumer movement, patient representatives can perform the vital task of tailoring the patient to fit the health service.

—Kate Pfordresher
Source: *Science* 3/28/80.

New York's in the Red!

Available from Health/PAC 259 pp. \$13.50
Publicly Supported Preventive and Primary Care During the New York City Fiscal Crisis: 1974–1977.
Health/PAC's 18-month study that found that the most cost-effective health services in New York City were hit hardest by the City's fiscal crisis. A look at the impact on hospital ambulatory care, neighborhood health centers and the New York City Department of

6 Health.



PUBLIC HOSPITAL

Cost-Benefit Analysis

Continued from Page 2

posing as the bearers of Enlightenment, they assured us that progress was their most important product and that they were making life better through chemistry. Today, in an effort to protect their economic position, they have abandoned such lofty prose in favor of what must be considered one of the most cynical ideologies in modern history, a sign perhaps that the social order they represent has lost its promise and, therefore, has outlived its usefulness.

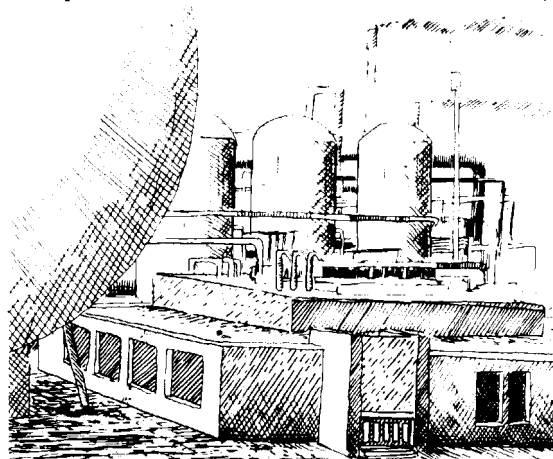
THE POLITICAL FRONT: "Regulation Reform"

Whereas the propaganda campaign of the petrochemical companies is an indirect "winning of hearts and minds" approach to the regulation challenge, regulation reform is more direct, and familiar. Although the industry lost the first round of political battles over regulation (the battles over the creation of the agencies), the chemical industry has hardly given up the crucial arena of political struggle. Their efforts take several forms. The most traditional is the fight against government interference in free enterprise, a fight which appeals to the classical liberal American anti-statist tradition. Here the giant companies like Mobil pose as embattled freedom fighters, holding the line for democracy against the encroachments of authoritarian socialism. Despite the absurdity of monopoly firms defending free competition, the appeal to free enterprise works, especially when it is tied in with sacrosanct notions of individualism, democracy and progress. The chemical campaign has them all. Thus Browning of Union Carbide rails against government regulation by pointing to an opinion poll done for his company by Cambridge Reports which shows that, "66% of the public favored individual risk-benefit decisions" (21). Let the people decide for themselves, urges this professional manipulator of public opinion. Aaron Wildavsky, the political scientist from California, echoes the line "democracy requires the assumption of certain risks" and becomes impossible when "individual judgment and choice is replaced by government action" (22).

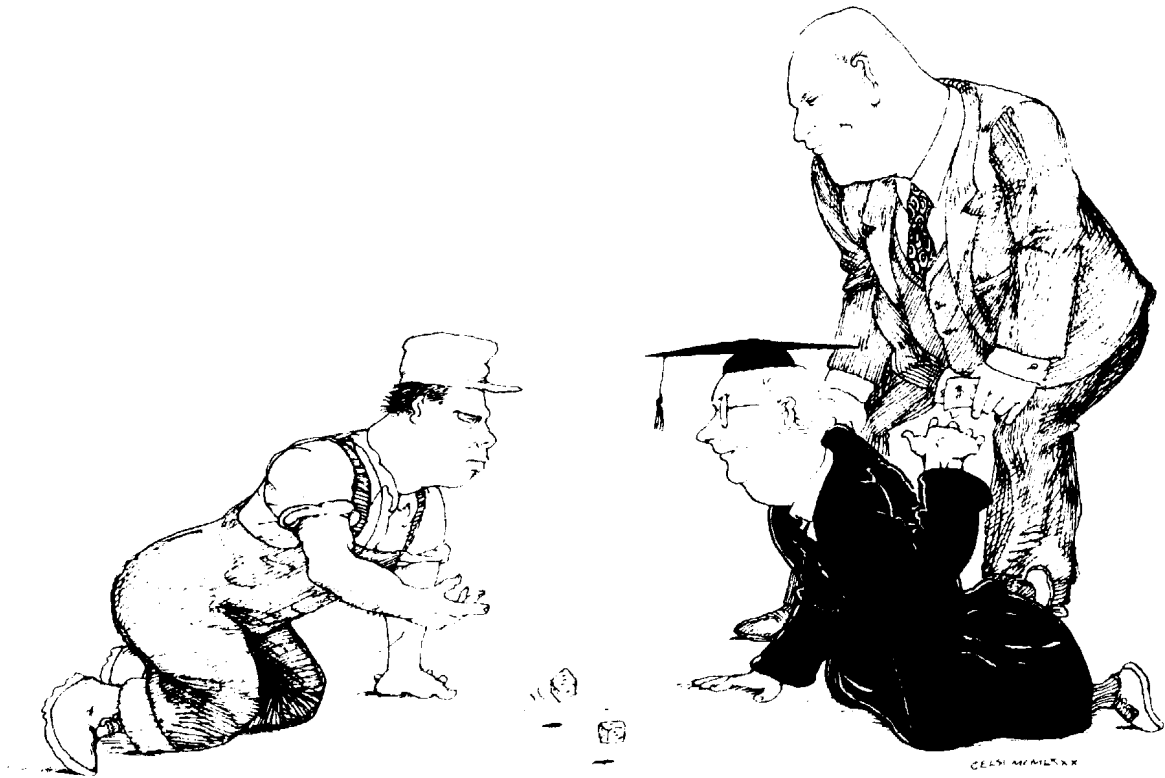
If freedom, individual, and democracy are at stake in this battle against regulation, so to is progress itself. "Already innovation has

been stifled," complains Manufacturing Chemists' Association president Robert Roland, not to mention "productivity curtailed, inflation fueled, our ability to compete in foreign markets hampered and our domestic markets opened to cheaper foreign imports" (23). Chairman Connor of Allied Chemical threatens that, if regulation continues, "business will become increasingly reluctant to develop products that offer important benefits but carry with them certain risks that are not completely avoidable" (24-27).

For all their rhetoric about the fate of free enterprise, individuality, democracy, and progress, the chemical companies are first and foremost concerned about the economic consequences of regulation. Indeed, the "regulation reform" debates boil down to the question of the costs of regulation. Central to the discussion are studies like those prepared by Murray Weidenbaum, Director of the American Enterprise Institute's Center for the Study of American Business in St. Louis,



which allegedly determine the annual costs of regulation (28); Weidenbaum's 1979 figure of \$103.6 billion has been widely used to bolster business anti-regulation arguments (29). The chemical industry has characteristically defended itself against regulation on the grounds of anticipated economic hardship or calamity. In the early 1970s, chemical manufacturers announced that a proposed federal standard for vinyl chloride, a known carcinogen, would cost two million jobs and \$65 billion. Their trade association declared that "the standard is simply beyond the compliance capability of the industry." As it happened, the standard was adopted and the industry continued to flourish, without job losses and at only five per cent of the expected cost (30). In 1975, during the debates over Toxic



Substances Control Act (TSCA), the industry hired the Foster D. Snell consulting firm to investigate the costs of the proposed legislation. Again, the findings indicated that the costs were prohibitive. Once again also, however, the credibility of the industry was damaged when members of Congress who requested to see the raw data were told that it had been destroyed according to a prior agreement among the participating companies (31).

Since the enactment of TSCA and the Clean Air Act Amendments, the petrochemical and oil industry has redoubled its efforts against regulation, demanding ever more stridently that economic costs be made a major factor in all regulatory decisions. This demand constitutes an obvious inversion of the intent of the original "environmental impact statements" required by EPA. As Jackson Browning of Union Carbide puts it, "we in the business world have learned that we must consider the environmental impact of economic goals. The time is here for environmentalists to consider the economic impact of environmental goals"(32). The industry's push for economic impact statements is being supported by a major study of the costs of regulation, this time conducted by the Business Roundtable, an organization whose membership includes the chief executives of most of the large firms in the industry. The study will examine the

economic impact of all new regulatory agencies, including EPA, OSHA, and the Equal Employment Opportunity Commission on American Industry and the economy in general (33).

In recent years the regulation reform movement has gained momentum in Washington, owing in large measure to the intense lobbying effort of the petrochemical industry. In 1974, President Ford issued an Executive Order requiring "inflation impact statements" for all proposed regulations. In 1976, just before he left office, Ford renewed his directive, this time calling for "economic impact statements". With his own Executive Order in March of this year, President Carter joined the anti-regulation campaign in earnest, calling for so-called "regulatory analyses" not only of proposed regulations but also of those already on the books. Regulation reform has thus become a central thrust of the Administration's war on inflation (34).

The Executive Orders have been carried out in practice by several Administration agencies: the Council on Wage and Price Stability (COWPS), the Council of Economic Advisors (CEA), and the recently created Regulatory Analysis and Review Group (RARG). Key figures in the activities of these agencies include William Nordhaus and Charles Schultz, of the CEA, Alfred Kahn,

Carter's anti-inflation czar, and Barry Cosworth of COWPS. Also involved in this effort is the Office of Science and Technology Policy (OSTP), headed by Frank Press of MIT, which provides technical support for the analyses and recommendations COWPS makes to RARG. (This OSTP role in regulatory analysis is growing but is yet to be fully articulated; its responsibility may possibly be shifted over to the newly expanded Technology Assessment and Risk Analysis Group of the National Science Foundation's Division of Policy Research and Analysis (35).)

COWPS has no clearly articulated policies, according to lawyer Michael Baram, who has prepared a major study of regulation reform activities for the Administrative Conference of the US. However, he has found that "certain assumptions are imbedded into COWPS'

analysis, such as maintenance of the economic status quo; COWPS will not try to foster new economic regimes or reduce certain industrial sectors as part of the solution to a health, safety, or environmental problem. COWPS believes that the agencies share this

assumption, as they do not want to impair substantially their regulatees' economic status"(36). He notes also that the White House groups operate "in a setting of free-wheeling *ex parte* contacts between CEA and other Presidential aides with the agencies" in which "trade-off processes take place which prove to be highly controversial" (37). The effectiveness of the COWPS analyses, however technically inadequate or biased, is immeasurably enhanced in such a setting since they are never articulated for public, Congressional or judicial review. Presidential power, rather than scientific truth or political responsiveness is the key to that effectiveness.

Recently, COWPS and RARG have been busy. In 1978, they four reports: criticizing (1) EPA's proposed national ambient air quality standards for photochemical oxidants, 2) OSHA's proposed rules on exposure to acrylonitrile, a carcinogenic chemical produced by DuPont, Monsanto and other

chemical companies (this is the only case, interestingly enough, in which RARG has exercised its full review process), 3) OSHA's rules on toxic substances posing potential occupational carcinogenic risk, and, 4) the Department of Transportation (DOT) rules on non-discrimination against the handicapped (38). Since then COWPS has succeeded in softening DOT's bid to require air bags in all cars, and has criticized proposed Interior Department coal strip-mining regulations, OSHA's proposal to limit noise in the workplace and EPA's ozone and coal emissions standards (39). COWPS has demonstrated already its ability to delay promulgation of safety standards, as in the case of the Consumer Product Safety Commission's standards for lawn mowers, and influence standard setting itself, as in the case of EPA's standards for photochemical oxidants (40).

Recognizing the significance of these ad hoc activities, Senator Muskie initiated hearings of the Senate Subcommittee on Environmental Pollution "to assess the merit, legality, and political ramifications of the economically-oriented White House groups'

role in environmental regulations" (41). Meanwhile, however, the regulatory agencies, under pressure from the White House, have begun to comply by cleaning their own house. EPA has led the way with its own internal regulatory reform effort, which emphasizes "more flexible, more economically-oriented alternatives" (42); it has already entailed a massive personnel shake-up in the regional offices (43). Similar reform efforts have been launched by the Interagency Regulatory Liaison Group (EPA, OSHA, CPSC, and FDA) designed to avoid duplication and conduct testing, research and, most important for the present discussion, risk assessment (44).

Baram finds the ability of COWPS to delay action and influence regulatory decision-making "disturbing"; "the significant and essentially unaccountable roles played" by these groups "are not readily ascertainable" and their influence "rests on no particular expertise about, or demonstrated concern for,

The demand for cost-benefit analysis is 'the invention of those who do not wish to regulate or to be regulated'

**—Burke Zimmerman,
Staff Scientist,
House Subcommittee on Health
and the Environment**

The chemical industry is using its contributions to universities to: (1) gain scientific credibility to toxicological and risk accounting studies; (2) achieve greater control over university-based research, especially in the biomedical and genetic engineering fields; and (3) gain ideological legitimacy for their propaganda

the social, environmental and other 'uneconomic' issues involved, but...merely on the efforts of staff economists, statisticians and consultants with similarly limited backgrounds on matters of social cost" (45). Defenders of the regulatory agencies have been trying to launch a counter-offensive in recent months, arguing that the social and economic costs of regulating are less than the costs of not regulating. Thus Nicholas Ashford, chairman of the National Advisory Committee on Occupational Safety and Health has called the Administration's campaign "anti-democratic" (46) and has recently argued that "the costs of not regulating in the past are coming to light today; the cost of not regulating in the present would be a disgraceful legacy to workers, consumers, and industry in the future" (47). Mark Green, Director of Public Citizen's Congress Watch, has observed sardonically that "the abolition of slavery or child-labor laws certainly would never have passed a cost-benefit test" (48,49).

**THE LEGAL FRONT:
Regulation and the Courts**

If COWPS and RARG have had the effect of demoralizing and frustrating the regulating agencies, they have also encouraged the regulated industries to challenge the agencies in court, to force them to emphasize costs in their calculations and otherwise to comply with the Executive Orders. The federal laws which define the authority of the agencies (the National Environmental Protection Act, the Consumer Product Safety Act, the Toxic Substance Control Act, and the Water and Air Pollution Control Acts) require that decision-makers consider multiple factors in their decision-making, such as the reduction of risk, the avoidance of adverse economic impacts, the encouragement of the use of new technologies designed to reduce risk, the promotion of energy conservation, and the protection of small business. However, the laws are vague in that they do not specify precisely how these various factors are to be assessed and balanced against each other. The agen-

cies have thus enjoyed a considerable range of discretion in setting standards (50).

In recent years, however, court challenges to agency decisions, led by the American Petroleum Institute (API) and the Manufacturing Chemists Association (MCA), have urged the courts to specify the procedures whereby these complex and difficult decisions must be made, namely, quantitative cost-benefit or risk-benefit analysis (see the next section on methodology). Predictably, there has been considerable disagreement over just how deeply the courts ought to probe the procedural or substantive aspects of agency decisions.

The history of OSHA and the courts illustrates that recently there has been a trend away from judicial support of the agency's discretionary power. The Occupational Safety and Health Act provides that any OSHA standard is subject to pre-enforcement review in a federal court of appeals at the petition of anyone adversely affected by the rule. The Act, however, gives OSHA considerable authority; while it specifies in vague terms that standards must be "reasonably necessary and appropriate", it emphasizes that OSHA must make rules "which most adequately assure, to the extent feasible, on the basis of the best available evidence, that no employee will suffer material impairment of health" (51). Until recently, the courts have supported OSHA in its attempts to limit exposure to vinyl chloride, carcinogenic coke and asbestos. But a recent benzene case essentially reverses this history of court decisions favorable to OSHA (53). The OSHA benzene standard, which was challenged by the American Petroleum Institute, limits workers' exposure to benzene. Produced by the petrochemical and petroleum refining industries and used in the printing, chemical and rubber industries, this common industrial chemical may cause leukemia and other blood disorders. Because of this danger to health, the OSHA Administrator reduced the traditional industry standard of 10ppm to 1ppm but on October 5, 1978, the Court of Appeals for the Fifth Circuit

(New Orleans) struck down OSHA's standard, on the grounds that OSHA "had failed to enumerate the expected benefits of the regulation" and that it had not provided sufficient evidence to make it possible for the judges to assess the relative costs and benefits of the proposed regulation. In short, OSHA lacked evidence to show that the standard was "reasonably necessary."

The implications of the benzene case are far-reaching. First, and most immediate, the litigation will delay regulation another year at least, at a rarely acknowledged social cost to workers exposed to benzene. Such a delay will further handicap an already hamstrung agency (54). As Edward Greer, a lawyer specializing in occupational health, reminds us, "anyone with the most cursory acquaintance with industrial hygiene practices knows that few industries have been seriously inventoried or monitored. Only five per cent of American factories have any industrial hygiene programs whatsoever. And despite all the publicity they have received, OSHA inspections are actually a rarity. Second, the case establishes a precedent of requiring an unrealistic level of proof of benefit and risk before regulation can go into effect, a requirement that effectively kills low dosage carcinogenic control in the workplace(55). Third, the decision mandates, as never before, the use of quantitative cost benefit analysis methods in regulatory standard-setting (56-58).

THE METHODOLOGICAL FRONT: Risk Accounting

At the heart of the political and legal campaigns against regulation, as we have seen, is the demand that regulating agencies justify their actions by, and otherwise give greater attention to, the economic costs of regulating, and that they adopt formal quantitative procedures for estimating and comparing costs and benefits of alternative actions. Of course, it is only rational for decision-makers to take into account the probable beneficial and harmful consequences of their decisions, and they do so all the time as a matter of course. However, they do not necessarily emphasize the economic impacts of their actions nor must they adhere to a formal calculus of decision-making in order to proceed rationally (59). Thus, while the demand for cost-benefit analysis and economic cost accounting ap-

pears reasonable enough, in that it is typically voiced as a simple plea for rationality, it is, in reality, more than this; it is a political strategy designed and fostered, quite deliberately, to undermine, stall and hamstring the regulatory agencies. In the words of Burke Zimmerman, staff scientist for the House Subcommittee on Health and the Environment, the demand for cost-benefit analysis is "the invention of those who do not wish to regulate, or to be regulated... its primary use in government decision-making is to avoid taking action which is necessary or desirable in order to truly protect the health of the public or the integrity of the environment" (60). The methods proposed cannot properly be understood, or their significance appreciated, without reference to this political context. Moreover, the scientific status and logical validity of the methods are questionable, to say the least, as we will see. As Mark Green, Director of Public Citizens' Congress Watch, observed, "given the current state of economic art, mathematical cost-benefit analyses are about

'The abolition of slavery or child-labor laws certainly would never have passed a cost-benefit test'

**—Mark Green,
Director,**

Public Citizens' Congress Watch

as neutral as voter literacy tests in the Old South" (61).

Cost benefit analysis derives from simple profit and loss accounting used by private firms, in which the costs and benefits of alternatives are measured in dollar terms and compared in an effort to get the maximum return on investment. Variations of the procedure were originally adopted in the federal government by engineers, economists and planners in developmentally-oriented public agencies, such as those charged with the evaluation and justification of waste water disposal systems. Before the advent of environmental concern (and criticisms of interest rate determinations used to discount future costs and benefits), such calculations were relatively straightforward. In the 1960's, cost-benefit methods were part and parcel of the Program, Planning and Budgeting governmental reform crusades of Robert McNamara and President Johnson,

which centered in and issued from the engineering and business-oriented defense, aerospace and energy agencies. Personnel in these agencies were familiar with quantitative techniques, which they used to improve the design and management of large-scale engineering programs, such as the space and various military programs; here the "mission" was clearly spelled out, and criteria for success included staying on schedule, cost reduction, and performance specifications, all of which were quantifiable. It was only once these business and engineering methods were introduced by enthusiastic technocrats into realms in which the mission was less clearly articulated and the problems were more political and ethical than technical, such as HEW and the regulatory agencies, that the limitations of these methods became increasingly evident (62).

The piles of 'reports or consultants and academics demonstrating their cleverness in using cost-benefit analysis reveals in actuality the inefficiencies of some actual regulatory programs'

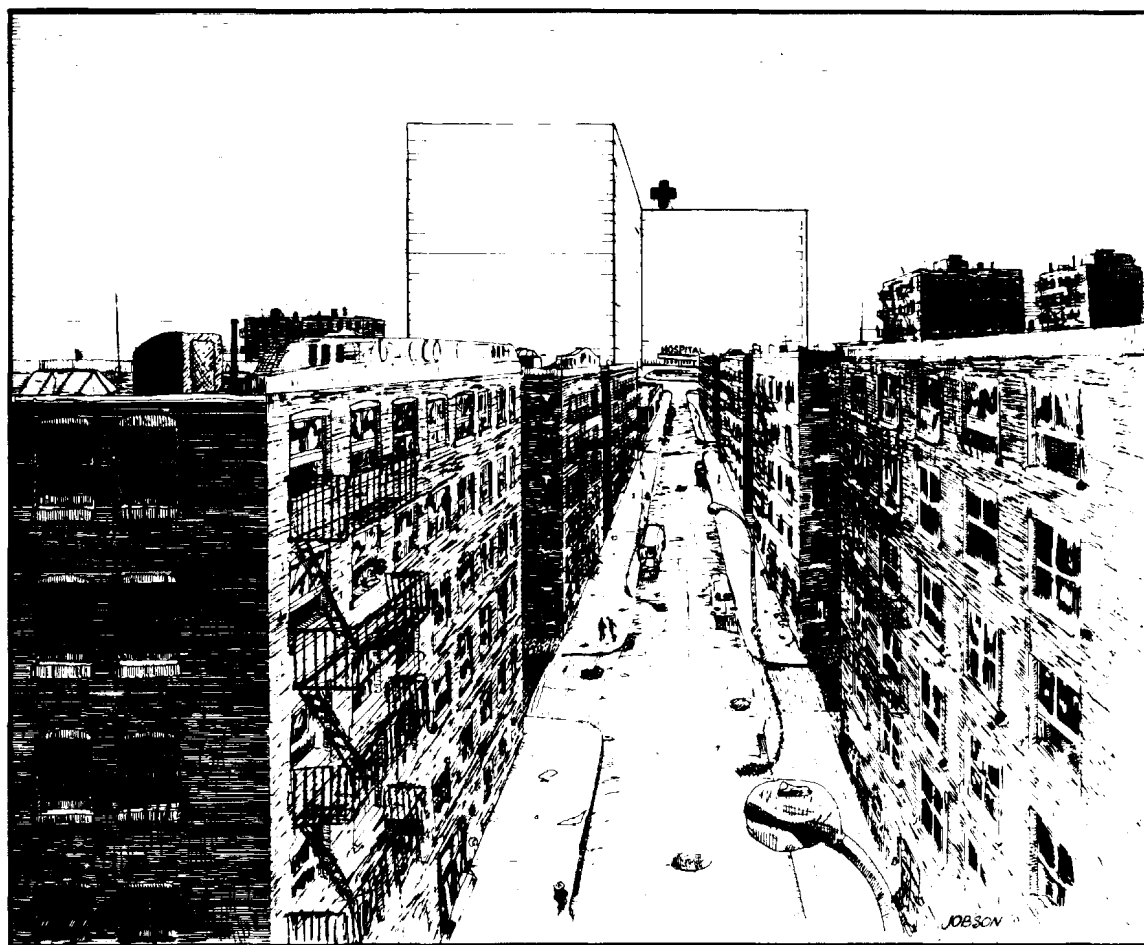
**—Michael Baram
Attorney**

In the 1970s the newer regulatory agencies turned to cost-benefit analysis as a method for structuring their rule-making procedures, but here there were thorny problems not encountered in the agencies where the methods were used with alleged success (63). Instead of a single specified mission, there were multiple factors and conflicting interests: first, the need to weigh competing considerations such as public health and economic feasibility; and, second, to proceed in spite of the technical uncertainty borne of a limited data base, disagreement among experts on interpretations of data and myriad unquantifiable attributes of alternative actions. Acknowledging these obvious difficulties, the agencies tended to use the methods sparingly and with caution. In recent years, however, as we have seen, the agencies have been encouraged or forced increasingly to employ these methods in their decision-making process and to use them to justify their actions. The language of the National Environmental Policy Act, the Ford and Carter Executive Orders, the judicial review of agency compliance with NEPA and the Executive Orders, the activities

of COWPS and RARG, and the regulatory reform efforts of the Interagency Regulatory Liaison Group have all contributed and are contributing to a greater agency reliance upon these quantitative methods and, with it, to a heightened emphasis on the economic costs of regulation. Also, the use of these methods has been promoted by scientific advisory committees of all sorts, such as the groups of experts who conducted the National Academy of Sciences studies on "Decision-Making for Regulating Chemicals in the Environment" (1975) and the "Biological Effects of Ionizing Radiation" (1977). The newly created Technology Assessment and Risk Analysis (TARA) Group of the National Science Foundation, which is working closely with the National Academy on a "risk and decision-making" project will no doubt serve to further promote such quantitative methodologies in regulatory decision-making (64).

Finally, last but by no means least, the regulated industries are themselves urging adoption of cost-benefit analysis in an effort to insure greater agency consideration of the alleged economic and inflationary impact of regulation. This they are doing through litigation, challenging agency actions not based upon cost-benefit analysis, through their own much-publicized studies of the costs of regulation not based upon cost-benefit analysis, through lobbying for Congressional amendments to modify existing statutory authority so that they will state a cost-benefit analysis requirement more explicitly, and through propaganda campaigns against regulation without cost-benefit analysis.

According to *Science*, cost benefit analysis has become something of a "new religion" in the business community, and, it might be added, the petrochemical companies are its high priests and missionaries (65). Thus, in marked contrast to their advertising rationale ("we are using television because it offers exactly the kind of emotional impact that can make a lasting impression on the public" (66), Monsanto tells scientific and professional audiences that they must be sober and objective, that "fear and emotion make a balanced evaluation of risk from chemicals very difficult" (67). Assuming the voice of rationality, Monsanto Chairman John Hanley insists that objective assessment of costs (or risks) and



Community Health in a Chicago Slum

When health activists talk about community involvement in health they usually mean participation in the governance of existing institutions delivering services. "Organizing" the community is seen as a necessary political activity to redress community grievances about inadequate, insensitive and unresponsive providers. Much health activism in the 1960s and 1970s has focused on transferring power through a consumer/community majority either in governance (OEO Neighborhood Health Centers) or in the planning process (National Health Planning Act). It has been left to the sociologists and medical anthropologists to examine the relationships between community social fabric and its health status.

The article by John L. McKnight that follows tells of the experiences in political action among a poor Chicago community concerned about its health. He examines the relationship between a community's sense of self deter-

mination and its health status. This community, having gained access to and control of its health care providers, still found itself enduring the same health problems. The community asked the Center for Urban Affairs at Northwestern University, where McKnight is Associate Director, for help with this puzzling and continuing problem. Unburdened by professionalism, the staff helped citizens reveal the realities of the community that led to "health problems." Much to almost everyone's surprise, the causes of hospital admissions were not very sensitive to manipulation of medical services, but could be addressed through political and social action and organization. This revelation came as no surprise to McKnight, who had previously said, "The evidence indicates that our health now requires major changes in individual, social, economic and environmental relationships rather than medical investments." The relationship between the community and the

Center is ongoing, and the community continues to explore further improvements in their health achieved through the kinds of activities described below.

This paper, first presented at a 1978 seminar sponsored by the Dag Hammarskjold Foundation, Uppsala, Sweden, is the seminal work on "community diagnosis." It raises some basic questions about current changes in the health care services system(s). It also demonstrates that lay citizens have the power and resources to change a community's health outcomes with a little help from their friends.

This article begins a series which will address the current status and nature of community health services. The series will include

articles examining the history of community health and mental health services, the relationship between the economy, community support systems, and individual dysfunction, and the problems of defining community. The series will attempt to address such important questions as "What is the relationship between a community's political and economic self-determination and its health status?", "Who defines who is the community and what are the consequences?", "What are the unique essentials of community health services?" and "What is the relationship between health services and community development?" We look forward to receiving your response to these important questions, too.

Is it possible that out of the contradictions of medicine one can develop the possibilities of politics? The example I want to describe is *not* going to create a new social order. It is, however, the beginning of an effort to free people from medical clienthood, so that they can perceive the possibility of being citizens engaged in political action.

The example involves a community of about 60,000 people on the West side of Chicago. The people are poor and black, and the majority are dependent on welfare payments. They have a community organization which is voluntary, not a part of the government. The community organization encompasses an area in which there are two hospitals.

The neighborhood was originally all white. During the 1960s it went through a racial transition. Over a period of a few years, it became largely populated with black people.

The two hospitals continued (analogous to colonial situations) to serve the white people who had lived in the neighborhood before transition. The black people, therefore, struggled to gain access to the hospitals' services.

This became a political struggle and the community organization finally "captured" the two hospitals. The boards of directors of the hospitals then accepted people from the neighborhood, employed black people on their staffs and treated members of the neighborhood rather than the previous white clients.

After several years, the community organization felt that it was time to stand back and look at the health status of their communi-

ty. As a result of their analysis, they found that, although they had "captured" the hospitals, there was no significant evidence that the health of the people had changed since they had gained control of the medical services.

The organization then contacted the Center for Urban Affairs, where I work. They asked us to assist in finding out why, if the people controlled the two hospitals, their health was not any better.

The Causes of Hospitalization

It was agreed that we would do a study of the hospitals' medical records to see why people were receiving medical care. We also took a sample of the emergency room medical records to determine the frequency of the various problems that brought the people into the hospitals.

We found that the seven most common reasons for hospitalization, in order of frequency, were:

1. Automobile accidents.
2. Interpersonal attacks.
3. Accidents (non-auto).
4. Bronchial ailments.
5. Alcoholism.
6. Drug-related problems (medically administered and non-medically administered).
7. Dog bites.

The people from the organization were startled by these findings. The language of medicine is focused upon disease — yet the problems we identified have very little to do

with disease. The medicalization of health had led them to believe that "disease" was the problem which hospitals were addressing, but they discovered instead that the hospitals were dealing with many problems which were not "diseases." It was an important step in conscientization to recognize that modern medical systems are usually dealing with maladies — social problems — rather than disease. Maladies and social problems are the domain of citizens and their community organizations.

Community Action

Having seen the list of maladies and problems, the people from the organization considered what they ought to do, or could do, about them. I want to describe the first three things that they decided to do because each makes a different point.

First of all, as good political strategists, they decided to tackle a problem where they felt they could win. They didn't want to start out and immediately lose. So they went down the list and picked dog bites, which cause about

There were two results of the community action, first, neighborhood residents learned that their action, rather than the hospital, determines their health. . .

four per cent of the emergency room visits at an average hospital cost of \$185.

How could this problem best be approached? It interested me to see the people in the organization thinking about that problem. The city government has employees who are paid to be "dog-catchers", but the organization did not choose to contact the city. Instead, they said: "Let us see what we can do ourselves." They decided to take a small part of their money and use it for "dog bounties"! Through their block clubs they let it be known that for a period of one month, in an area of about a square mile, they would pay a bounty of five dollars for every stray dog (not house dog) that

was brought in to the organization or had its location identified so that they could go and capture it.

There were packs of wild dogs in the neighborhood that had frightened many people. The children of the neighborhood, on the other hand, thought that catching dogs was a

. . . Second, people came to find out where the majority of accidents were taking place and what the major illnesses were for the community

wonderful idea—so they helped to identify them. In one month, 160 of these dogs were captured and cases of dog bites in the hospitals decreased.

Two things happened as a result of this success. The people began to learn that their action, rather than the hospital, determines their health. They were also building their organization by involving the children as community-activists.

The second course of action was to deal with something more difficult — automobile accidents. "How can we do anything if we don't understand where these accidents are taking place?", the people said. They asked us to try to get information which would help to deal with the accident problem but we found it extremely difficult to find information regarding "when," "where," and "how" an accident took place.

We considered going back to the hospital and looking at the medical records to determine the nature of the accident that brought each injured person to the hospital. If medicine were a system that was related to the possibilities of community action, it should have been possible. It was not. The medical record did not say, "This person has a malady because she was hit by an automobile at six o'clock in the evening on January 3rd at the corner of Madison and Kedzie." Sometimes the record did not even say that the cause was an automobile accident. Instead, the record simply tells you that the person has a "broken tibia." It is a record system that obscures the community nature of the problem, by focusing on the therapeutic to the exclusion of the

Community health action may help lead people away from being strictly 'medical consumers' to full access to medical care. Health is a political question and requires citizen and community involvement

primary cause.

We began, therefore, a search of the data systems of macroplanners. Finally we found one macro-planning group that had data regarding the nature of auto accidents in the city. It was data on a complex, computerized system, to be used in macro-planning to facilitate automobile traffic! We persuaded the planners to do a "print-out" that could be used by the neighborhood people for their own action purposes. This had never occurred to them as a use for "their" information.

The print-outs were so complex, however, that the organization could not comprehend them. So we took the numbers and translated them on to a neighborhood map showing where the accidents took place. Where people were injured, we put a blue X. Where people were killed, we put a red X.

We did this for accidents for a period of three months. There are 60,000 residents living in the neighborhood. In that area, in three months, there were more than 1,000 accidents. From the map the people could see, for example, that within three months six people had been injured, and one person killed, in an area 60 feet wide. They immediately identified this place as the entrance to a parking lot for a department store. They were then ready to act rather than be treated by dealing with the store owner because information had been "liberated" from its medical and macro-planning captivity.

The experience with the map had two consequences. First, the opportunity was offered to invent several different ways to deal with a health problem that the community could understand. The community organization could negotiate with the department store owner and force a change in its entrance.

The second consequence was that it became very clear that there were accident problems that the community organization could not handle directly. For example, one of the main reasons for many of the accidents was the fact that higher authorities had decided to make

several of the streets through the neighborhood major throughways for automobiles going from the heart of the city out to the affluent suburbs. Those who made this trip were a primary cause of injury to the local people. Dealing with this problem is not within the control of people at the neighborhood level—but they understand the necessity of getting other community organizations involved in a similar process, so that together they can assemble enough power to force the authorities to change the policies that serve the interests of those who use the neighborhoods as their freeway.

The third community action activity developed when the people focused on "bronchial problems." They learned that good nutrition was a factor in these problems, and concluded that they did not have enough fresh fruit and vegetables for good nutrition. In the city, particularly in the winter, these foods were too expensive. So could they grow fresh fruit and vegetables themselves? They looked around, but it seemed difficult in the heart of the city. Then several people pointed out that most of their houses are two storey apartments with flat roofs: "Supposing we could build a greenhouse on the roof, couldn't we grow our own fruit and vegetables?" So they built a greenhouse on one of the roofs as an experiment. Then, a fascinating thing began to happen.

Originally, the greenhouse was built to deal with a *health* problem — adequate nutrition. The greenhouse was a tool, appropriate to the environment, that people could make and use to improve health. Quickly, however, people began to see that the greenhouse was also an *economic development* tool. It increased their income because they now produced a commodity to use and also to sell.

Then, another use for the greenhouse appeared. In the United States, energy costs are extremely high and are a great burden for poor people. One of the main places where people lose (waste) energy is from the roof-

tops of their houses—so the greenhouse on top of the roof converted the energy loss into an asset. The energy that did escape from the house went into the greenhouse where heat was needed. The greenhouse, therefore, was an *energy* conservation tool.

Another use for the greenhouse developed by chance. The community organization owned a retirement home for elderly people, and one day one of the elderly people discovered the greenhouse. She went to work there, and told the other old people and they started coming to the greenhouse every day to help care for the plants. The administrator of the old people's home noticed that the attitude of the older people changed. They were excited. They had found a function. The greenhouse became a tool to *empower older people*—to allow discarded people to be productive.

The people began to see something about technology that they had not realized before. Here was a simple tool — a greenhouse. It could be built locally, used locally and its "outputs" were, at least, *health, economic development, energy conservation and enabling older people to be productive*. A simple tool requiring minimum "inputs" produced multiple "outputs" with few negative side effects. We called the greenhouse a "multility".

Most tools in a modernized consumer-oriented society are the reverse of the greenhouse. They are systems requiring a complex organization with multiple inputs that produce only a single output. Let me give you an example. If you get bauxite from Jamaica, copper from Chile, rubber from Indonesia, oil from Saudi Arabia, lumber from Canada, and labor from all these countries, and process these resources in an American corporation that uses American labor and professional skills to manufacture a commodity, you can produce an electric toothbrush! This tool is what we call 'unility'. It has multiple inputs and one output. This is a unique tool, this toothbrush. If a tool is basically a labor-saving device, this toothbrush is an anti-tool. If you added up all the labor put into producing this electric toothbrush, its sum is infinitely more than the labor saved by its use.

The electric toothbrush and the systems for its production are the essence of the technological mistake. The greenhouse is the essence of the technological possibility. The toothbrush (unility) is a tool that disables capacity and maximizes exploitation. The greenhouse (multility) is a tool that minimizes

exploitation and enables community action.

Similarly, the greenhouse is a health tool that creates citizen action and improves health. The hospitalized focus on health disables community capacity by concentrating on therapeutic tools and techniques requiring tremendous inputs, with limited outputs in terms of standard health measures.

Conclusions

Let me draw several conclusions from the health work of the community organization.

First, out of all this activity, it is most important that the health action process has strengthened a community organization. Health is a political issue. To convert a medical problem into a political issue is central to health improvement. Therefore, as our action has developed the organization's vitality and power, we have begun the critical

The health action process (1) strengthened community organization, (2) identified what one could do at the local level, and (3) helped people develop tools to help themselves

health development. Health action must lead away from dependence on professional tools and techniques, towards community building and citizen action. Effective health action must convert a professional-technical problem into a political, communal issue.

Second, effective health action identifies what you can do at the local level with local resources. It must also identify those external authorities and structures that control the limits of the community to act in the interest of its health.

Third, health action develops tools for the people's use, under their own control. To develop these tools may require us to *diminish* the resources consumed by the medical system. As the community organization's health activity becomes more effective, the swollen balloon of medicine should shrink. For example, after the dogs were captured, the hospital lost clients. Nonetheless, we cannot expect that this action will stop the medical balloon from growing. The medical system will make new claims for resources and power,

but our action *will* intensify the contradictions of medicalized definitions of health. We can now see people saying: "Look, we may have saved 185 dollars in hospital care for many of the 160 dogs that will not now bite people. That's a lot of money! But it still stays with that hospital. We want our 185 dollars! We want to begin to trade in an economy in which you don't exchange our action for more medical service. We need income, not therapy. If we are to act in our health interest, we will need the resources medicine claims for its therapeutic purposes in order to diminish our therapeutic need."

The three principles of community health action suggest that "Another Development in Health" is basically about moving away from

being "medical consumers" with the central goal being full access to medical care. Rather, the experience I have described suggests that the sickness which we face is the captivity of tools, resources, power and consciousness by medical "utilities" that create consumers.

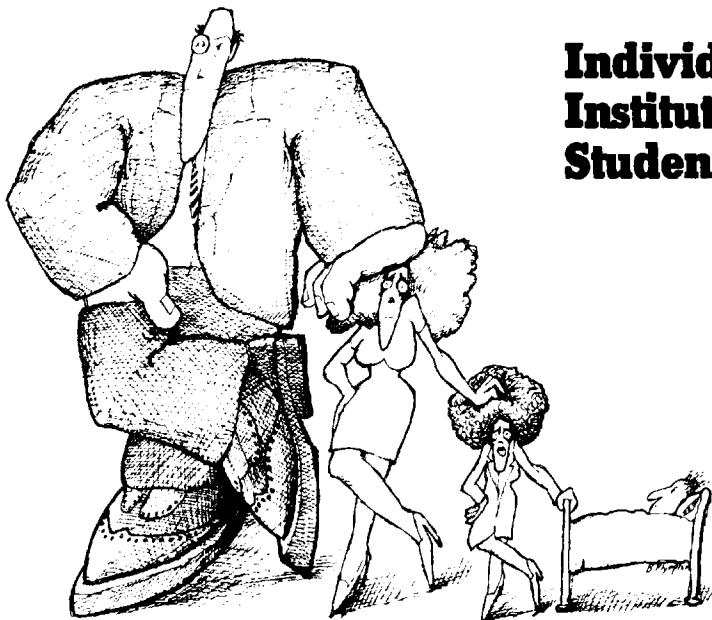
Health is a political question. It requires citizens and communities. The health action process can enable "another health development" by translating medically defined problems and resources into politically actionable community problems.

—John L. McKnight

(John L. McKnight is Professor of Communications and Associate Director of the Center for Urban Affairs at Northwestern University.)

Health/PAC Bulletin

Renew your subscription today!



Individual \$14.00
Institution \$28.00
Student \$11.20

Volume 12: 1980-1981 (six issues). Health/PAC Bulletin is published bimonthly on a volume year basis from the September-October issue to the July-August issue.

THE HEALTH CARE HIERARCHY

fund, the Hetch Hetchy Water and Power System, and the airport. Pressing these demands, involved SFGH employees learned that City Hall was considering a library, a park, the mental health budget, and other sources within public health as possible targets for lab funding. One city official claimed that the city would "have to rob Peter to pay Paul." After many meetings with city officials, a press conference, media coverage and a meeting with the Mayor, the city produced \$500,000 to unfreeze the lab jobs, but no assurances about the source of these funds.

The lab crisis was soon followed by a \$4.3 million cut in the city's \$28 million mental health budget. Sixty community mental health positions were lost, along with cuts in private agencies on contract to the city. Sixty-five percent of those laid off were ethnic minorities, many of them bilingual and bicultural. Dr. Steven Goldfinger, a Co-Director of the Psychiatric Emergency Room at SFGH, described some of the effects, "Where there used to be a number of places in the city where mental patients could go to flop for the night, now there are a very few. We've been reduced to referring people to warmest and safest parks."

With the announcement of the mental health cuts, a campaign was mounted by SEIU Locals 400 and 250, mental health workers from several facilities, and mental health Community Advisory Boards. This alliance was later joined by a

group of SFGH workers and housestaff. Community meetings, media coverage of "horror stories" resulting from the cuts and mass demonstrations at City Hall brought only sympathy from the Mayor and some officials. At a Board of Supervisors meeting, Chief Administrator Officer Roger Boas urged the elected officials to "get on with the cuts," but a few progressive Supervisors, most notably Harry Britt, pressed actively for additional funding. Throughout, Local 400 officials publicized revenue sources the city could tap. On the day of a massive demonstration at City Hall, with the Chambers packed by hundreds of HCC supporters, the Supervisors surveyed the city finances and located funds they felt could be allocated to mental health. They voted to recommend \$650,000 in supplemental funding. Mayor Feinstein overturned the Supervisors position, however, insisting that the money had already been allocated to the fire department.

The HCC formed through a merger of the mental health alliance with a group of SFIRA and Local 400 members who were organizing an ongoing effort to defend and improve SFGH. A community meeting on September 12, 1979, set the stage for the merger and the founding of the HCC. Concerned with the spectre of services pitted against each other, competing for funds, the HCC formed with a focus on the question, "Where will the money come from?" The Coalition's

answers suggest progressive solutions to the fiscal crisis itself — increased corporate taxes and revenues generated by certain municipal enterprises.

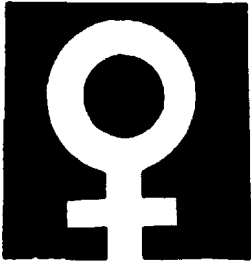
After organizing another large demonstration and press conference at City Hall in October that brought media attention to the Coalition's concerns, the HCC began to focus on next year's city budget. Members publicized information on projected cuts and joined the struggle over local tax and revenue proposals. Hundreds of people from unions and community groups converged repeatedly on City Hall to demand full funding for services and a substantial hike in business taxes. Mayor Feinstein's "revenue package" provides very modest increases in business taxes—if they get 2/3 voter approval in June — and, raising municipal transit fares, it imposes a new burden on the public. Needless to say, her plan is endorsed by the Chamber of Commerce.

Abandoning its local posture, the HCC's immediate priority is opposition to Proposition 9 — Howard Jarvis's proposed income tax bonanza for the rich.

On California's June ballot, Prop 9 has stimulated strong opposition in San Francisco and throughout the State. The HCC is working with Local 400 and education and childcare advocacy groups to organize an anti-Prop 9 rally on May 31. The possibilities of lasting alliances among organizations based in different services are part of the event's appeal.

—Jon Garfield

WOMEN



CAN'T STOP THE ABUSES

With the passage of the 1978 HEW guidelines for sterilizations, many health activists believed that sterilization abuse was curbed once and for all. But these guidelines apply only to Medicaid-covered procedures. All other sterilizations are still subject to local or state laws.

The new HEW guidelines include the following provisions:

- a 30 to 180 day waiting period between the signing of the consent form and the performance of the procedure, waivable to 72 hours in the case of premature delivery or emergency abdominal surgery, with specific regulations;
- applicant must be a minimum of 21 years;
- applicant must not be mentally incompetent;
- applicant must not be institutionalized;
- hysterectomy is not covered when performed solely for sterilization purposes;
- an elaborate informed consent procedure is outlined, requiring verbal and/or written explanation

of the irreversibility of sterilization, in the primary language of the applicant, administered by the physician and another person;

- an explicit statement that no benefits will be withheld if the applicant changes her/his mind during the waiting period;
- consent cannot be obtained during labor, abortion, or while the applicant is under the influence of drugs or alcohol.

These provisions became effective February 6, 1979, and states had to comply in order to continue to be reimbursed by Medicaid. All other sterilizations are covered by any state or local laws that may exist. According to the *New York Times* (February 23, 1980), 20 to 25 states still have laws which permit compulsory sterilization of "incompetent" persons, with the consent of a relative or state official. These eugenic laws were and are the historical impetus for the anti-sterilization abuse movement. That same *New York Times* article focused on Virginia's Lynchburg Training School and Hospital's 50 year practice of compulsory sterilization to "raise the intelligence of the people of the state," in the words of the Virginia Supreme Court. Some of those sterilized, not surprisingly, were "high functioning" retardates — prostitutes, truants, petty criminals—not sterilized because of their crimes, per se, but because the hospital diagnosed them as mentally retarded.

By now, hundreds of abuses have been documented all over

the nation, with racial, economic or other eugenic motivations (see *Health/PAC BULLETIN*, nos. 62, 65, 76). Some states or cities have adopted legislation covering all sterilizations (not just Medicaid funded) performed in their domain. New York City's guidelines, adopted in 1977, served as a model for the development of HEW's standards.

Hundreds of abuses have been documented all over the nation, with racial or other eugenic motivations

California also developed its own guidelines for all sterilization procedures performed within the state. These guidelines included:

- applicant must be fertile;
- applicant must be a minimum of 18 years;
- applicant must be able to comprehend the consent form (this is the only reference to mental health criteria);
- a 14-day waiting period between the signing of the consent form and the performance of the procedure, waverable to 3 days by the patient;

Obviously, these standards are far less stringent than HEW's new standards, and some changes were necessary to bring California into compliance, so as to be eligible for Medi-Cal (Medicaid in California) reimbursement.

Rather than upgrade the state's standards universally,

California has opted, instead, for a *de facto* two-class medical system — Medi-Cal and everyone else—which went into effect April 1980. Had California opted for universal application of HEW's standards, a spokesperson for the director of the State Department of Health Services said, there still would have to be some exceptions — in the age requirement and the use of hysterectomy. "We can't outlaw hysterectomies for sterilization purposes for private-paying patients, because they have the right to purchase whatever services they want, since it comes out of their own pocket." The old *caveat emptor*.

The State Department of Health Services justifies the two-class system by saying that the testimony delivered at the public hearing was equally divided between universal application of HEW standards and maintenance of the *status quo*. The Coalition for the Medical Rights of Women, however, stated that, "consumer groups were not only in

favor of retaining [HEW's] regulations for private-pay patients but requested that all regulations reflect a single high standard of health care..." It further asserted that the decision made corresponds to the position taken by the California Medical Association.

At first glance this does not seem terribly dangerous. Most victims of sterilization were/are poor, and this system surely protects them, since poverty is a criteria of Medicaid eligibility. But that conclusion is too naive to be accurate. The medically indigent, those too wealthy to qualify for Medicaid but too poor to afford health expenditures out of their own pockets, are a growing subclass of our contemporary society. California also has a sizable "alien" population, primarily Mexican. These people are already at several disadvantages when forced to deal with our health system—they fear deportation, they cannot speak English fluently, and more often than not, they are poor. The eugenics bias of

sterilization propaganda and practice makes them easy prey for abuse.

California's State Health Services Department plans to address some of these criticisms by the formation of a task force comprised of representatives of the CMA, consumer groups and any other interested parties. This task force will, hopefully, develop sterilization guidelines. However, the guidelines generated will be just that—guidelines. They are not intended to become law.

Once again, as gains are won in the battle for reproductive freedom, other gains are slowly being whittled away. And as a result, women often find themselves pitted against other women (as in national NOW's 1978 decision *not* to support HEW's guidelines because they make it "difficult" for middle-class women to obtain sterilizations) for protection from Right-to-Lifers, eugenists, etc., rather than united against the sexist, racist and class biases of our legal and medical systems.

—Marilynn Norinsky

Science and Liberation

SCIENCE AND LIBERATION is a collection of essays on the role of science and scientists in the modern world. Grouped into four sections, the more than 20 articles cover the important issues of: the myth of the neutrality of science, science and social control, working in science, and new approaches to science teaching and working.

Edited by

Rita Arditti,
Pat Brennan,
Steve Cavrak

398 pp. \$15.00 hardback;
\$6.50 paperback

Send check or money order to
South End Press
Box 68, Astor Station
Boston, MA 02123

35% discount for an order of five or more, plus 75¢ postage for first book and 20¢ for each additional book.

Dear Friends

We feel it is time to celebrate our first whole year back in circulation. It's also time to brief you about the changes undertaken at Health/PAC in the last several years and to ask for your collaboration in the months and years ahead.

About three years ago Health/PAC faced a problem common to most progressive organizations and journals which had their roots in the movements of the 1960s: our income shrank dramatically. The generous gifts and grants on which we had largely depended were no longer forthcoming. The implications were serious ones. Health/PAC was no longer able to sustain the full-time staff of writers who had, in those years, uncovered the most significant stories about America's health system. In 1978 because of the financial crisis, we were forced to stop publishing the *Bulletin*. Faced with this dilemma we took steps we felt necessary to ensure that the *Bulletin* would survive. First we reorganized as a volunteer editorial board to write and edit the *Bulletin*, with one paid staff member to coordinate our activities. Second, we sought out and signed a contract with Human Sciences Press to do production and distribution of the *Bulletin*, thereby assuring the fiscal means to continue. We want to make clear, however, that we at Health/PAC have retained complete editorial control over the contents of the *Bulletin*.

Not surprisingly a lot of confusion occurred during the transition to Human Sciences Press and we lost touch with many of our old friends and subscribers. Please tell your friends that we're back. Many of you have also had problems with current subscriptions and have not received all the issues from this volume year. We have been working hard to solve these difficulties and acknowledge that some still exist. But please don't give up! Address your subscription complaints to either Peg Stewart at Human Sciences Press or to Kate Pfordresher at the Health/PAC office. (We will be able to process your complaint more quickly if you will attach a copy of your cancelled check.)

After a full year of publishing again, we find that our difficulties may indeed turn out to be blessings in disguise. As volunteer staff we cannot ourselves alone provide the in-depth journalism which characterized the old *Bulletin*. In the last year, we have published articles from health activists from around the country and are amazed and heartened by your energy. In the coming months, we at Health/PAC aim to develop a more organic relationship with you. We need your feedback, articles, news and letters—now more than ever—in order to remain an integral part of the health movement.

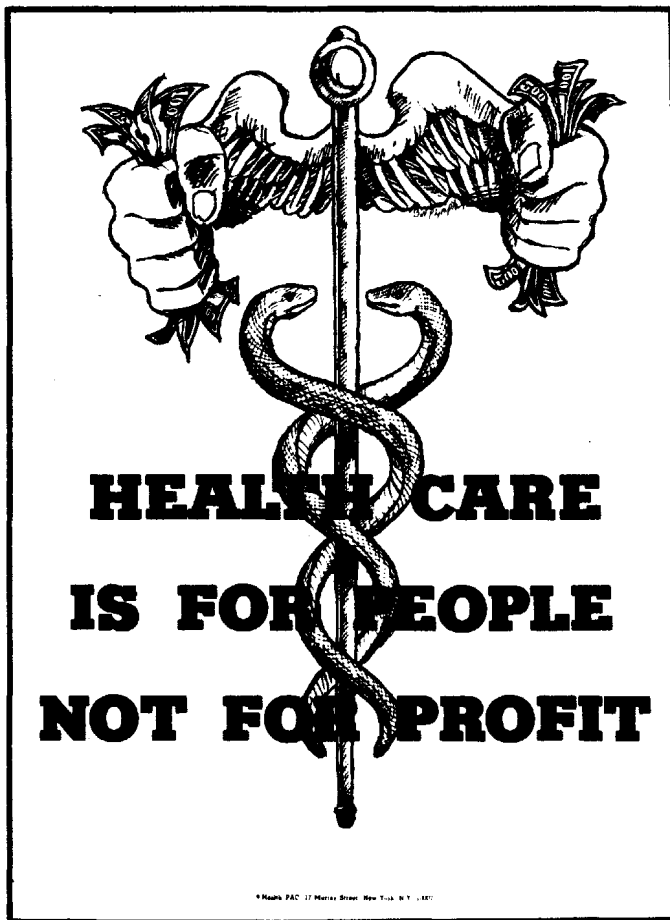
Another area in which we will depend upon you more involves our financing. As we talk to people around the country, we find that there is a gross misunderstanding about our relationship with Human Sciences Press. Many think that we are now financially supported by the Press, and are therefore not in need of contributions. This is far from the case. While the Press does pay for production of the *Bulletin*, it pays little else to the organization. We get no money from the Press for maintaining our office, our phone, our electric service or our postage.

In sum, Health/PAC is adapting to form an organization in tune with and relevant to the issues of the Decade. We have had and still have innumerable problems. But we feel optimistic that, with your support and with the wealth of information you possess, we can remain vital. As of yet we don't have a more efficient, personal way of getting to know each one of you, so please, we ask you to make it your priority to send us your ideas. If they are important to you, they are important to us.

In the spirit of solidarity and looking forward to your concrete collaborations, we want to join you in attacking the health issues of the 1980s.

Thanks

The Health/PAC Editorial Board



Suitable for Framing

Limited Time Offer
to all Health/PAC subscribers

A 17½" x 22½" poster
featuring an illustration by artist

Bill Plympton

Brown letters on beige paper
overlaid on orange caduceus

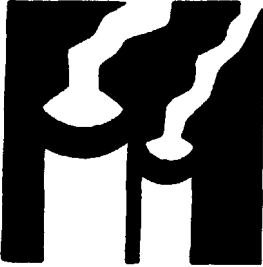
Health Care is for People Not for Profit

Yours for only \$3.00
plus \$1.00 for mailing and handling

Send check or money order to:
Health/PAC, 17 Murray Street, New York, N.Y. 10007

Order Now!

WORK/ENVIRON



"THE DEADLY FOG" AGENT ORANGE UPDATE

By now, most anyone who watches TV news or reads a daily newspaper knows that Agent Orange is a herbicide which was used in Vietnam and is now suspected of having poisoned GIs who served there. During the war, allegations that the herbicides used by the US were causing increased miscarriage and birth defects among Vietnamese who lived in sprayed areas outraged international opinion. Eventually Nixon was forced to cancel the program, but not before 54 million pounds (containing an estimated 350 pounds of TCDD Dioxin) was dumped on a land area equivalent in size to the state of Massachusetts.

Citizen Soldier, a GI/veterans rights organization, first became involved in the issue two years ago when veterans in Chicago began reporting symptoms (chloracne, nerve damage, upper respiratory distress, edema, palpable and tender liver, gastric hyperplasia, arthritic-like joint problems, etc.) which scientists have linked to exposure to TCDD di-

oxin following accidents at factories producing dioxin-contaminated 2,4,5-T in the US and Europe. As we put out the word to the media and vet groups across the country, thousands of veterans began to write and call in to report similar ailments they'd suffered since returning from Vietnam. In addition, many reported that their wives had suffered miscarriages as well as giving birth to children with congenital birth defects.

With the help of two New York health activists, Drs. Susan Daum and Jeanne Stellman, Citizen Soldier designed a 6-page self-administered medical questionnaire which we began sending to every veteran who requested information. As of April, 1980, over 11,000 questionnaires have been distributed with nearly 3,800 already completed and returned. This data base will be invaluable to scientists who wish to organize an epidemiological study of Vietnam veterans and their families.

As thousands of veterans wrote or called in, the Veterans Administration's contention that no long-term health effects could be attributed to herbicide exposure became increasingly untenable. This unprecedented outpouring of ailing veterans was stimulated by unceasing media attention and by a series of public service announcements which featured Martin Sheen, star of "Apocalypse Now," alerting veterans to Agent Orange symptoms and urging them to contact Citizen Soldier for information and advice. Often, public service announcements which treat

controversial subjects are shunned by TV stations, but this time it was different. Almost 200 TV stations, including many in major markets like Boston, Los Angeles and Seattle, gave air time to the Sheen spots. These generated another torrent of inquiries, ranging as high as 100 a day.

Although Agent Orange has clearly emerged as a matter of concern for millions of Americans, the two federal agencies primarily responsible, the Pentagon and the VA, have consistently tried to minimize the extent of any problem. As the primary health care facility for 30 million veterans, the VA could be instrumental in providing essential information and treatment for veterans who may have been poisoned by dioxin exposure. Unfortunately, the VA leadership has chosen to become a partisan for the position that Agent Orange symptoms exist solely as a figment of the veterans' imagination. Their cynical refusal to conduct any outreach or to administer a comprehensive screening program for veterans who complain of Agent Orange symptoms has meant that confused and worried vets have only independent veterans organizations like Citizen Soldier to turn to for advice. This has placed a crushing burden on small, inadequately funded vet groups. Recently, VA Administrator Max Cleland was forced to admit to the press that when he anonymously conducted a spot-check of four VA hospitals, none provided him with accurate information on Agent Orange. He could have learned the same thing by taking a few phone calls at the Citizen Soldier office. In an informal poll we conducted last summer, 91 percent of the 650 vets who responded rated their VA evaluations as "inadequate."

Although Agent Orange has clearly emerged as a matter of concern for millions of Americans, the two federal agencies primarily responsible—the Pentagon and the Veterans Administration—have consistently tried to minimize the extent of the problem

The Pentagon's record on Agent Orange has been even worse. The Air Force Surgeon General presented the military's definitive position on the dangers of herbicide in a report published in October 1978. Following a detailed summary of the defoliation program in Vietnam, it concluded that few US troops were likely to have been exposed to dioxin, since, 1) spray missions were flown primarily in remote jungle areas, 2) US troops were not permitted to enter sprayed areas for at least 4-6 weeks after defoliation missions were completed (at which time they claim dioxin would have degraded into harmlessness) and, 3) spray personnel wore protective gear.

Again, the hundreds of letters and phone calls we received from veterans told us that the truth was otherwise. A surprising number gave detailed accounts of having been directly doused by spray planes while their units were in the field. Men who had served in the chemical corps described how they constantly sprayed herbicide from helicopters, trucks and even portable back packs. These sprayings were routinely conducted around the perimeter of US firebases and defensive positions. As has been the case with environmental hazards in industry or mining, actual practices often deviate widely from the stated or "official" policy.

Six months ago, the GAO finally blew the whistle by reporting that its investigators, using military records, had been able to identify at least 5,000 Marines who were within a mile of spraying on the day it took place. They also identified another 14,000 who were the same distance within a month of spraying. They could find no evidence of military orders which restricted troops from entering freshly-sprayed areas. They flatly rejected the Pentagon's contention that spraying was confined to remote areas; noting that 100 meters from any fire base was considered a "free spray zone" and could be defoliated solely on the unit commander's order.

Despite these revelations, the Pentagon has shown little inclination to budge from its position that only the 1,200 "Ranch-hander" spray crews need to be studied. Although a frustrated Congress recently passed legislation mandating the VA to conduct an epidemiological study of a cross section of Vietnam veterans, there's no evidence that the military is using available records to trace and identify soldiers who were in high-risk areas.

While some scientists from SUNY have expressed willingness to code and program data from the first 3,800 questionnaires, Citizen Soldier continues to seek help from those who have expertise in conduct-

ing epidemiological work.

Both the manufacturers and the government have an enormous stake in the outcome of this battle. The potential liability for injuries suffered by veterans and their families could easily reach tens of millions of dollars. However, the manufacturers' ferocity in fighting attempts to hold them responsible is not explained by their economic stake in defoliants. Sales of 2,4,5-T account for only one half of a percent of Dow's annual \$3 billion sales. Rather, it is their fear that a ruling against Agent Orange will establish a precedent which could eventually extend to thousands of other untested chemicals which have been released into our environment since World War II. For the first time, military veterans can see a common bond between their victimization and the rest of society—we're all the unwilling guinea pigs in a world beset with radioactive and chemical hazards.

—*Tod Ensign*

(Ensign is co-director of Citizen Soldier, a GI/ veterans rights organization, 175 Fifth Ave., NY, NY 10010 (212) 777-3470, and co-author (with Michael Uhl) of "GI Guinea Pigs" an expose of Pentagon negligence in exposing US troops to radiological and toxicological hazards. It is to be published by Playboy Press May, 1980.)

Cost-Benefit Analysis

Continued from Page 12

benefits offers "the best way, indeed the only sensible way" of making increasingly complex regulatory decisions (69). Robert Roland, President of the Chemical Manufacturers Association, underscores the importance of the methodological campaign: "Whether government understands, accepts and applies risk-benefit analysis to regulation will be the most consequential question facing the chemical industry in the 1980s" (75).

As has already been suggested, these methods are especially valuable politically in that their use tends to obscure the basic policy questions of government regulation of business in a technocratic haze of numbers (numbers readily manipulated), focusing attention upon the statistics rather than the issues. The methods offer other advantages as well, not the least of which is the seeming monopoly on rationality itself. All qualitative or subjective decision-making is relegated to the realm of irrationality and dismissed without a hearing. By invalidating experience and intuition, they thereby disqualify all but the technically initiated from taking part in the debate, which becomes enshrouded in an impenetrable cloak of mystery. People are encouraged to suspend their own judgement and abandon responsibility to the experts (who have already surrendered their responsibility to their paymasters). For the experts themselves, the methods are attractive in that they seem to offer a way to "do good," in the grand utilitarian tradition, without necessitating any inconvenient, untidy or risky confrontation with power. Perhaps most important, the tedium and complexity of the mathematical gymnastics keep regulators busy, not regulating. With their agencies "clogged with reports, studies, consultants and procedural notions," they are "unable to take any action at all," the victims of "regulatory sclerosis" (69).

The case of carcinogens provides an illustration of the overall strategy. In the past when regulators identified a chemical as being carcinogenic, that charge alone was sufficient to alarm the public, rally support behind regulation, and place the chemical industry on the defensive. The manufacturer of the product was compelled by public pressure to trot out their own toxicologists to dispute the claim

that their products were carcinogenic. Today, through promotion of the logic of "risk accounting" (the term is Herbert Inhaber's, of the Canadian Atomic Energy Control Board)(70), the industry is working to shift the very construction of the debate in their favor. Rather than denying it, the companies now readily concede that their products are carcinogenic, throwing their critics off balance, and they ask instead that the acknowledged risk of cancer be put "in perspective", be compared to other risks and balanced against product benefits. This perspective, moreover, they argue, can only be gained through the elaborate, inaccessible and seemingly unassailable exercises of the technicians.

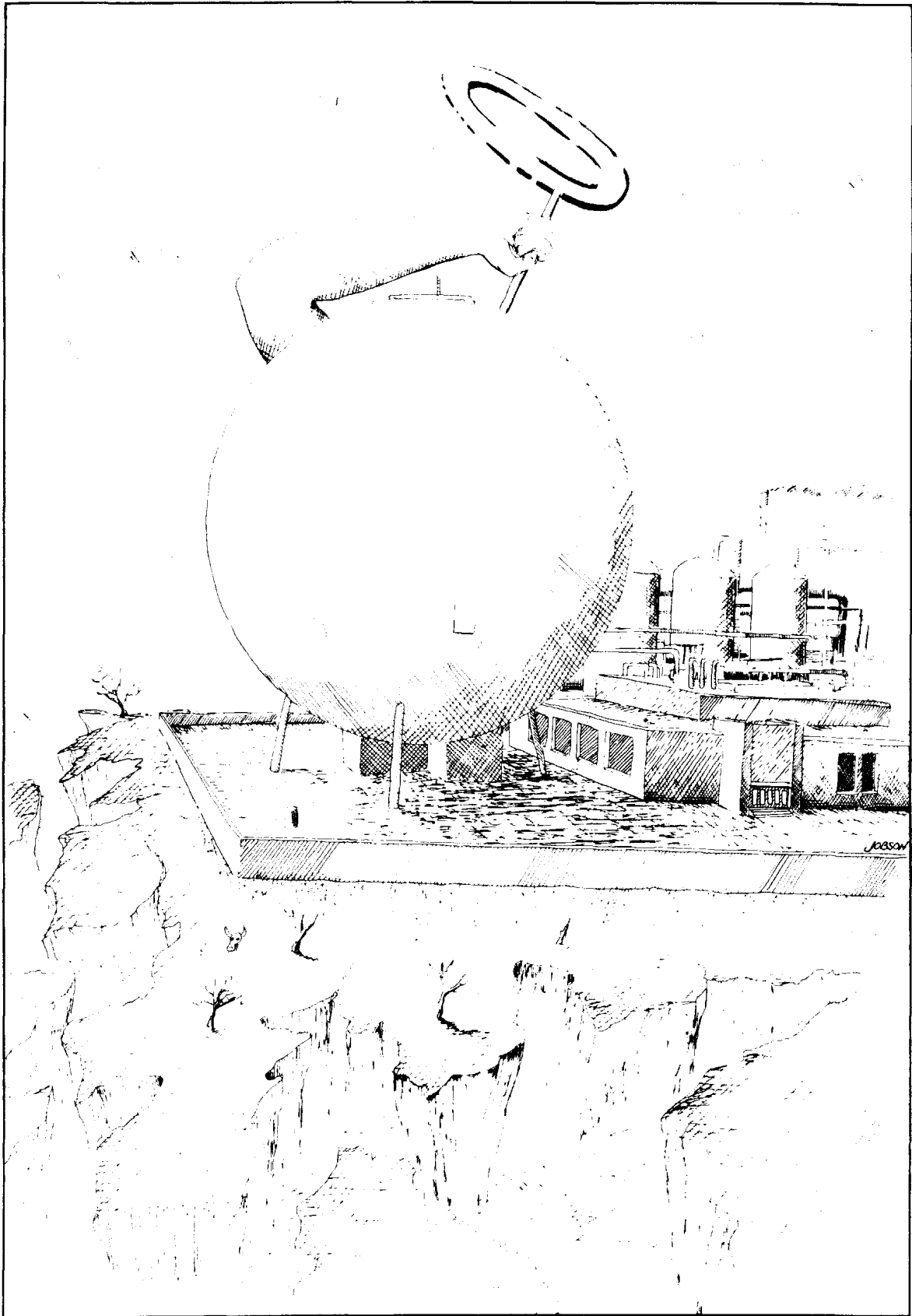
This new way of thinking, grounded upon the notion that life is inescapably replete with risks (and the implied correlate, that the risks we face today are inescapable), has caught hold in the media. Thus, physicist Richard

'The costs of not regulating in the past are coming to light today; the cost of not regulating in the present would be a disgraceful legacy to workers, consumers and industry'

—Nicholas Ashford

**National Advisory Committee
on Occupational Safety and Health**

Wilson of Harvard, in a popularized *Technology Review* article, observes that "the world seems a very hazardous place. Every day the newspapers announce that some chemical has been found to be carcinogenic, or some catastrophic accident has occurred in some far-off place. These lead some of us to hanker after a simpler world where there are fewer risks to life. But does such a world really exist?" (71). After analyzing and comparing the "daily risks of life" — from crossing the street to getting out of bed in the morning—he answers his own rhetorical question in the negative: life is tough. Along similar lines, a writer in the *Wall Street Journal* described the recent accident at Three Mile Island and jarringly juxtaposes it with a tornado in Iowa, boarding house fires in Missouri, floods in Illinois, and a school bus accident in Florida.



Cost-benefit analysis is valuable politically in that its use tends to obscure the basic policy questions of government regulation of business in a technocratic haze of numbers, focusing attention upon the statistics rather than the issues

"This is not to trivialize the problems at Three Mile Island," he assured his readers, "but it is a useful note to strike in the wake of the near-hysteria we have been inundated with for the past week" (72). But, of course, the use of these methods does indeed contribute to a trivializing of the issue at hand, when it does not obscure it altogether. The methods are ready-made for sober-sounding sophistry, for begging the questions, clouding the issues and, in the name of clarity, generating confusion; by the time the computer has begun to print, no one remembers what the question was.

Essentially, risk accounting is cost-benefit analysis which is done in the context of health, safety, and environmental regulation (73). Here the costs are risks, that is, probabilities of disease or injury or ecological damage resulting from the production or distribution or emission of some toxic agent or pollutant; the benefits are the pleasure, comfort, or service we derive from the use of the substance. When the worth of a regulation is being analyzed, rather than the substance itself, the minimization of the risk is seen as the benefit of regulation and the loss of the (usually economic) benefits or unregulated activity is viewed as the cost of regulation (74). However you slice it, though, the methodology invariably entails two distinct procedures, measurement and assessment. Measurements are made in several ways. The probabilities of risk to human life resulting from various natural occurrences or man-made events or human activities are calculated and compared. This is called comparative risk analysis. In risk-benefit analysis, both the risks and benefits of a single action are calculated and compared, say, for the case of air travel, the risk of an airplane crash and the benefit of getting from New York to Boston in less than an hour (flying time). Then there is the calculation of the costs and benefits of regulation of particular actions, regardless of risk, and finally, there is the more traditional cost-benefit analysis of, say, the use of alternative technologies to achieve a desired goal,

where reduction of risk is a performance specification.

All of these measurements once made, however, whether reduced to the common units of dollars (most typical), risk/megawatt of electricity, risk/manhour, or whatever, tell us only about estimates of relative costs and benefits, not what we should do with this information. It still has to be evaluated so that it can inform judgement, that is, so that it can lead to a defensible, non-arbitrary decision. This is where assessment comes in; although the measurement procedures are almost always suspect, as we will see, the assessment is certainly the most slippery part of the analysis. The most common technique is to quantify all variables, reduce all information to dollars, and then decide that the alternative that costs less (adds up to the least dollars) will be chosen; the official justification is economic. Another technique simply relies upon and appeals to common sense and intuition. For example, Norman Rasmussen, in his now largely invalidated *Reactor Safety Study* (75), evaluated and trivialized the risk of a nuclear accident by merely comparing it to the risk of being hit by a meteorite, relying upon his readers' experience with falling meteorites to make his point. Finally, another technique is the acceptability approach, a behavioristic charade of democracy, wherein the analyst asks the question, what kinds of risks do people normally and apparently voluntarily accept, judging from their behavior. Dams burst, yet people build houses downstream from them; airplanes crash, yet people continue to fly in them; thousands die in automobile accidents, yet people still buy cars and drive them. The probability of accidents for each of these and similar activities is calculated and these become the "standards of acceptability." Then, if the risk to health posed by the use of a technology or a chemical is measured and found to be less than these standards, it is deemed acceptable, and decisions are made accordingly with the assumption of popular endorsement. Questions about whether or not the actions upon which the

standards are based are really voluntary, or whether an analyst or the population facing the risk should be making the assessment, are rarely posed. Instead, if a person is horrified by the consequences of carcinogenic pollution, he is reminded that every day he takes greater risks driving to work, so what's all the fuss: be consistent.

The appealing thing about such methods for the analyst aside from the fact that they reinforce his prerogatives is that they so often yield counter-intuitive results; the answers come out in ways one would not have anticipated (unless, of course, one were the analyst). The happy consequence of this, for the promoters of the techniques, is that the naivete of the non-specialist is forever being revealed; the public is thus further cautioned about relying upon their experience and intuition and encouraged instead to rely upon the wisdom of the expert who alone can put things in perspective. The methods thus become powerful vehicles for undermining popular conviction and political action, which are grounded on mere lived experience, and pro-

moting an unpopular line of thinking or course of action.

In recent years the abuse and inherent weaknesses and limitations of these quantitative methods of risk accounting have become increasingly apparent and a body of criticism has begun to emerge. Michael Baram, in his study of the use of cost-benefit analysis in regulatory agencies for the Administrative Conference of the US, has enumerated some of the problems arising from the use of the methods as well as some of the flaws inherent in the methods themselves (76). Concerning the use of these methods, Baram, a lawyer, asks such questions as: are constitutional requirements of due process, individual rights and equal protection adequately served in the use of these methods? To what extent should Congress, the courts, or the public accept agency determinations based upon such analyses? Is there any legal and just resolution possible over the institutional conflicts between Executive Orders demanding such analyses and statutory requirements which are silent on the nature of "balancing" or which

Rockefeller Medicine Men

Medicine and Capitalism in America

by

E. Richard Brown

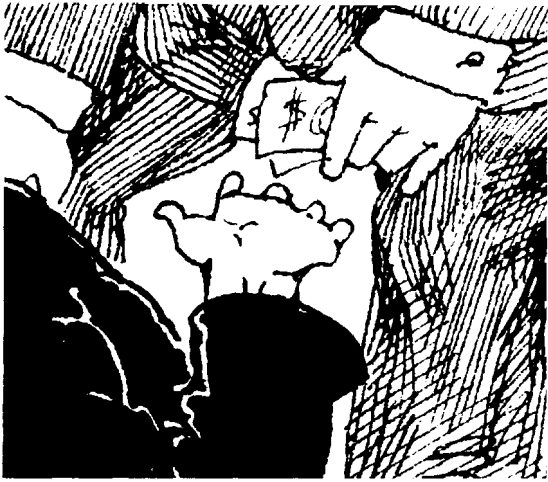
Send orders to:
Health/PAC
17 Murray Street
New York, N.Y. 10007

"This book tells us what health care in the United States is really all about. . . . No one can or should ignore this book. It's an eloquent, well-documented damning appraisal of the historical marriage between medicine and capitalism and its impact on shaping the kind of health-care system we have today."

Washington Post

Originally \$12.95 . Now Only \$10.45!

Price includes postage and handling. Allow at least six weeks for delivery.



eschew balancing altogether in certain circumstances (as in the OSHA Act)? Robert Reich of the Federal Trade Commission suggests yet another problem arising from the use of these methods in regulatory decision-making: the erosion of democratic politics. "The very insistence upon economic impact analysis alters the rules of the game," he writes. "Proffered 'views' are no longer assertions of preferences for certain outcomes, but predictions about economic effects," offered, it might be added, in the name of science and thus with the authority of science. "The resulting issues — what universe is to be analyzed, what variables are to be included, what [and whose] values are to be measured [by whom] — are not the sort of questions around which large and otherwise indifferent interest groups are easily (or, probably, ever) mobilized. Indeed, the analysis is apt to be so complicated that many individuals or groups may feel that they lack the necessary expertise to participate" (70).

Baram, like quite a number of recent critics, points out many inherent limitations characteristic of the methods. Among them are: inadequacy of forecasting techniques to identify the costs and benefits of proposed actions; the arbitrary exclusion of certain identified attributes from the analysis (for political or less conscious ideological reasons as well as for convenience and parsimonious elegance of the mathematical models); lack of consensus as to whether certain attributes are to be classified as costs or benefits, or as being of no consequence; inadequacy of the techniques for measuring the costs and benefits to be included in the analysis; the difficulty, if not impossibility, of quantifying traditionally unquantifiable attributes such as aesthetics,

ecological change, and human mortality combined with the prevalence of a demonstrated technocratic intolerance of non-quantifiable variables. (Mark Green points out that the value of a human life varies from study to study; the University of Rochester puts the figure at \$350,000, the American Enterprise Institute at \$2.5 million, and Cornell University at \$1.5 million (78).)

There is also the chronic problem of determining the proper discount rate for valuing future benefits and costs in present analyses as well as the equally difficult problem of determining a fair distribution of the costs and benefits among the population. There is also a corollary to the latter: should someone be permitted to decide that someone else must face a risk? If so, on what grounds, according to what criteria, what and whose values? Last but not least there is the ever-present problem of what Baram calls "promoting self-interest and other analytical temptations"(79), what Harold Green of George Washington University Law School has termed "the numbers game" (80). Baram observes that the cost benefit analysis literature is "curious, in that a typical work contains candid treatment of the limitations of [the methods] and warns against [their] use in actual decision-making because of the inevitable limitations, but thereafter describes its use on a particular problem and ends by urging adoption of the results" (81). This is a characteristic, for example, of the National Academy of Sciences studies of regulatory issues. Furthermore, as a Library of Congress review concluded, such studies "tend to support the vested interest of the sponsors of the estimate or to fit the hypothesis of the individual making the estimate" (82), a problem compounded by a general lack of accountability or peer review (characteristic of, and vital to, the scientific enterprise) and an impenetrable jargon and complexity that impedes public review or even understanding. Thus Baram notes the piles of "reports of consultants and academics demonstrating their cleverness in using cost-benefit analysis to reveal [again and again], in retrospect, the inefficiencies of some actual regulatory program"(83).

In the light of the increasingly evident shortcomings of risk accounting, MIT Professor of Mechanical Engineering James A. Fay, who has himself done many such assessments of the risks and benefits of Liquefied Natural Gas transport, has come to the

cynical conclusion that the entire approach is nothing more than "scientific pornography" (84). And, after a thorough investigation of the use of these methods, the House of Representatives Subcommittee on Oversight and Investigation of the Committee on Interstate and Foreign Commerce, recently concluded that "the limitations of the use of benefit/cost analysis in the context of health, safety, and environmental regulatory decision-making are so severe that they militate against its use altogether" (85).



Such insight into the limitations of risk accounting does not signal the curtailment of its use, however, Michael Baram reminds us, for example, that "despite this [House of Representatives] study and the growing awareness throughout Congress of cost/benefit analysis issues, there is no evidence to date that the issues are being further considered or approaching resolution on a generic basis" (86). Thus, problems remain, alongside the increasing awareness of them. The real problem, however, as has already been emphasized, is not methodological but political. Indeed, by and large the recent surge of debates over the scientific claims of risk accountants miss the point and compound the problem. Counter studies and arguments over the details and validity of the techniques themselves, however important, passionate and incisive, serve primarily to divert our attention from the larger political picture and, in so doing, contribute to the over-all effectiveness of the political strategy. For, as MIT Professor Nicholas Ashford, a lawyer and chemist and scientific advisor to both OSHA and the EPA, reminds us, in essence "cost-benefit analysis of health standards has become part of a political game" to thwart Congressional regulatory intentions and

hamstringing the regulatory agencies (87).

It is precisely because of the political thrust behind the promotion of risk accounting that its promoters strive to gain scientific, and thus supra-political authority, for their methods, to disguise their intentions and enhance their power. Thus, as we have seen, Jackson Browning of Union Carbide has called for an "independent, non-political panel of top-flight scientists" (88) to conduct these analyses, incidentally promoting the convenient myth that there is such a thing as an independent, non-political scientist (a myth which must be counted among the greatest achievements of the scientific community). Browning has proposed that the august National Academy of Sciences, the scientific community's national sales office, do the "objective" studies, but the obvious site for such seemingly disinterested drudgery is the university, the allegedly neutral turf of serious scholarship. Although, as we have seen, the petrochemical companies and their trade associations have been conducting their own studies, industry people are fully aware that their credibility is low (89). If they do the studies, their results will be suspect, as controversial in the eyes of their opponents as the regulatory agency studies are in their own eyes. And they have begun to realize, in their search for scientific credibility and ideological legitimacy that academic respectability offers both. Accordingly, they have set out to buy themselves some.

RISK INSTITUTES: The Ivory Tower Goes Plastic

"Regulating policy is increasingly made with the participation of experts, especially academics. A regulated firm or industry should be prepared whenever possible to coopt these experts. This is most effectively done by identifying the leading experts in each relevant field and hiring them as consultants or advisors or giving them research grants and the like. This activity requires a modicum of finesse; it must not be too blatant, for the experts themselves must not recognize that they have lost their objectivity and freedom of action" (89a). At this past spring's commencement exercises of America's premier technical school, MIT, the school's president, a former Presidential Science Advisor, delivered an unusually political speech, lauding the decision to deregulate petroleum prices and decrying the actions of irresponsible regulators — an ob-

vious sign of the times (90). Less obvious, but symbolically more significant, was the fact that Joe F. Moore, president of a Houston-based consulting firm for the petrochemical industry and President of MIT's Alumni Association, wore the Elizabethan parliamentary robes of Chief Marshal of MIT Academic Processions, strode at the head of the faculty procession, and carried the four-foot golden mace, symbol of MIT's academic authority (91). The symbolism, lost on those in attendance, signalled the petrochemical industry's move to the campus.

According to the *Chronicle of Higher Education*, which for the past fifty-eight years has conducted an annual survey of corporate support of universities, the increase of such funding in the last two years was the largest since the survey began around 1920 (92). There is little doubt that the petrochemical industry has much to do with this dramatic increase. The science-based petrochemical industry is no stranger to the campus. During the great wave of expansion of American universities in the 1920's, typically the first new building to be constructed was the industry-funded chemistry building. University-based industrial research for the chemical industry is also an old story, of course, whether performed in college laboratories or in affiliated institutes like Batelle or Mellon, as are industry fellowship and recruitment programs and extensive faculty consulting (93). Now the industry is taking advantage of this long-time relationship to forge new kinds of ties. Essentially, they have three interwoven objectives: (1) to gain scientific credibility for toxicological and risk accounting studies; (2) to achieve greater control over university-based research, especially in the biomedical and genetic engineering fields; and (3) to gain ideological legitimation for their propaganda.

When a politician or corporate official or labor union leader takes a stand on an issue which dovetails nicely with his own institutional or personal gain, the press, if it sees a marketable story, is quick to shout conflict of interest. Rarely if ever, however, does the press or anyone else criticize a university scientist on the same grounds, even if the case of conflict of interest is *prima facie* (as in the case of nuclear reactor safety). There is a strong social taboo against it, a taboo ingrained by a century-old, remarkably successful, public relations effort by the scientific community. Under the cover of scientific authority, this community has, for all intents and purposes, immunized itself from normal public

scrutiny, to the point that not only are its members not publicly challenged, they are not even suspected. So long as a scientist does not officially work for a company or a government agency (however much consulting or research money, or stock ownership or other ties he may have with them), he can rest assured that his stance of neutrality and objectivity will never be questioned by the lay public.

It is no wonder, then, that the embattled petrochemical industry would be interested in moving to the campus, to try to purchase some of this immunity for themselves. By creating elaborate institutional arrangements, including the funding of broadly conceived projects, fellowship programs, professorial chairs, personnel exchange programs, and the like, they are able to maintain their scientific servants right on the university campus. This allows them to take advantage of publicly-supported facilities, frees them from the burden of hiring new employees, and, most important for the present discussion, offers them the prestige, credibility and immunity that only the university can provide. Moreover, by buying up the scientific community wholesale and making the transaction a part of the academic routine, they no longer have to rely upon the willing prostitution of individual scientists to get their job done.



The most obvious and immediate service the university-based scientists can now provide for the chemical industry is in the areas of toxicology and risk accounting. The key university personnel for this task are found in the nutrition, chemistry, biochemistry, and chemical engineering departments, the schools of public health (physiology, epidemiology, social medicine, toxicology) as well as in such policy-related departments as political science, economics, statistics and the new policy institutes that dot American campuses. These people will provide the expert testimony, the reams of data, the

scientific publications, the cost-benefit analyses, the policy recommendations, and, perhaps most important in the long run, the new generation of experts—unsuspecting students lured by ample fellowships, expanding programs (as in toxicology), new laboratory facilities and large research grants, who will never think twice about the source of this growth or the social and political context of their fascinating scientific work (except to understand that it is unwise and indecorous to bit the hand that feeds them).

Beyond the funding of individual departments, the industry is currently encouraging universities to establish interdisciplinary programs which will bring together both the scientific and policy work under one roof. At MIT for example, the Administration, at the behest of DuPont, Monsanto, the Manufacturing Chemists Association and other corporations, is about to launch a Program on the Environmental Effects of Chemicals; if a pilot course held this summer is any indication, it will involve chemists and biologists, toxicologists and nutritionists, political scientists and economists, lawyers and "policy experts" (94). At Harvard's School of Public Health, an industrially-funded Interdisciplinary Program in Health is already in place, under the leadership of a Director of the Upjohn Corporation; similarly drawing together chemists, microbiologists, toxicologists, physiologists, statisticians and lawyers, the program focuses upon "issues of both science and public policy related to chemicals in the environment," examines "policy decisions and regulations: the



scientific basis and their social, economic, and political consequences," and emphasizes "methodologies for quantitative risk assessment" (95). At both places the industry is providing funds for research, staff, students, and facilities; in return, they gain the MIT and Harvard imprimatur, and thus a guarantee of academic re-

spectability for their campaign against regulation.

Industry support for research in toxicology and risk accounting must be understood as an aspect of the industry campaign against regulation and of a renewed industrial effort to foster and direct university-based scientific research. Institutional research ties between industry and universities were forged and nourished during the first three decades of this century but, with the onset of World War Two and subsequent

'Whether government understands, accepts and applies risk-benefit analysis to regulation will be the most consequential question facing the chemical industry in the 1980s'

**—Robert Roland,
President,
Chemical Manufacturers
Association**

military and space programs, the universities became ever more dependent upon government funding; industrial ties were neglected, industry-university relations grew strained and the nineteenth century gap between the university laboratory and the "real world" of production began to reemerge. In recent years, however, this post-war arrangement has begun to deteriorate. Government funding for university research is being cut back, university budgets are being squeezed as a result of falling enrollments and a general fiscal austerity and, with international competition intensifying, there is a growing demand for more American "innovation" and a more complete and rapid "technology transfer" from the laboratories to the marketplace.

Tight college budgets, impatience with seemingly pie-in-the-sky science, concern that the US is falling behind in technological development: the setting is ripe for a resurgence of industry-university cooperation, and the petrochemical industry has begun to turn it to their advantage. While it might be suggested that direct industrial funding of university research represents a welcome shift away from military misuse of our scientific resources, it also signals, in the name of innovation, significant public subsidization of the large firms which have heretofore retarded innovation in order to protect their own investments and market positions. Here as elsewhere

(appearances to the contrary notwithstanding) the companies will be receiving far more than they will be giving.

John Hanley, the Procter and Gamble soap salesman who became head of Monsanto in 1972, is a leading spokesman for this renewed corporate interest in academia. "In just about any field — you name it," Hanley says, "there is potential for a university and an industrial concern to work together" (96). As *Time* reported recently, Hanley "surveys the university horizon for joint ventures. . . . Compared with cash-short colleges, companies have far larger resources to invest in basic research and they are much more expert in managing that research, directing it to the market" (97). In return for their funding, the companies will receive privileged access to facilities, personnel, libraries, students, related research as well as a measure of academic respectability. And because universities are in dire financial straits, they are more than willing to formalize on a contract basis the services which their staffs have heretofore provided on an informal and individual consulting basis. But the companies want more. They want to be able to insist, first, that the research be done on a proprietary basis (all the findings go first to them, before publication, and they get all patent rights) and, second, that they get exclusive control over the marketable results (98). Since much

'The very insistence upon economic impact analysis alters the rules of the game. Proffered "views" are no longer assertions of preferences for certain outcomes, but predictions about economic effects'

**—Robert Reich
Federal Trade Commission**

of the research will be jointly sponsored by industry and the government, this means there must be a change in policy regarding government research contracts; historically, although grantees have often been allowed to patent their inventions, they were obligated by the contract to grant to the government a free and unrestricted license to use the inventions. Industry is now in the process of trying to reform that policy and the patent system itself, to make it easier to get patents on government-supported developments and to enable them to buy back from the govern-

ment the unrestricted license rights, thus giving them complete exclusive control over the new development. In short, the industry, knowing a buyers market when they see one, are offering to move into it, but on their own terms. There are indications that their terms will be met.



The Patent Subcommittee of the Carter Administration's recent Domestic Policy Review has supported the general thrust behind the industry program, arguing that "if the results of federally sponsored research and development do not reach the consumer in the form of tangible benefits, the government has not completed its job and has not been a good steward of taxpayer money" (99). A Bill to Amend the National Science Foundation Act of 1950 (HR 4672), currently before Congress, reflects the scope of the industry effort. Aimed primarily at stimulating innovation and technology transfer, it will also well serve industry aims: encourage industrial funding of universities through tax and other incentives; stimulate and support exchanges of personnel between industry and universities; create "technology centers" which will essentially be industrial research facilities on campus (like the submicron structures laboratory at Cornell and MIT's polymer processing program); and establish "innovation centers" to facilitate the transfer of results from the laboratories to the marketplace. It also calls for the creation of an Industrial Technology Review Panel to oversee these activities which will draw a majority of its members from industry and business (100). In light the recent Domestic Policy Review of the Carter Administration, which endorses such industry initiatives, there can be little doubt that we are in the midst of a major transformation of industry-university relations in which universities are fast becoming mere extensions.

For the petrochemical companies, a major focus of research, in addition to chemistry and energy, is the biological and biomedical sciences reflecting their recent major moves into the agricultural products and pharmaceutical fields (through merger, acquisition and research). Monsanto's Executive Vice President Louis Fernandez explains: "the backdrop is that many of our traditional businesses—plastics, fibers, and organic and bulk chemicals—will be growing at a rate substantially less in the next ten years than in the previous decade or two. We see greater potential for growth in the life sciences" (101). If the contracting petrochemical market is driving the companies into the life sciences, they are also being attracted by recent advances in genetic engineering, which now shows promise as a production process (for the production of insulin and internal plant fertilizers, for example). Thus, although in the past the basic biological sciences have received scant interest from industry and have been supported almost exclusively by government agencies such as NSF and NIH, they are now the center of attention (102).

The most noticeable sign of this attention is the "Monsanto-Harvard Agreement", a \$23 million arrangement between Monsanto and Harvard Medical School for the conduct of proprietary

basic research to find marketable cures for cancer. It is clearly the pilot for future arrangements. "A lot of people in both education and business are watching this project," Monsanto's Hanley told *Time* magazine; "Exxon, for example, is looking at it. They have some fledgling arrangements with MIT and I gather they want more" (103). (MIT and Exxon have just announced an \$8 million, ten-year contract for cooperative research in combustion.) AMOCO, Standard of Indiana, Union Carbide, Standard of California (Chevron Chemical), Shell, Occidental (Hooker Chemical), and other petrochemical companies are also moving into the area of biochemical research (104). According to one contributor to a Stanford study on medical innovation, "biochemicals appear to be the next stage in industry's search for profits, soon to replace petrochemicals as the cutting edge of commercial development" (105). Capital-rich Monsanto is clearly leading the move into the \$24 billion health-care industry; the company recently announced "the promising results of human tests on a new anti-cancer product," the first fruit of the Harvard connection apparently, and also named Howard Schneiderman, currently Dean of the School of Biological Sciences at the University of California (Irvine) to be its new Senior Vice President for Research and Development (106).

We Need Your Help

Sustaining Associate—\$100 or greater annual contribution. Besides renewal of your BULLETIN subscription, you receive: (1) a free gift subscription; (2) a free copy on request of all new Health/PAC publications including our recent book, PROGNOSIS NEGATIVE; and (3) a free folio of 32 illustrations by Health/PAC artist Bill Plympton.

Sustaining Contributor—\$50 or greater contribution annually. Besides renewal of your BULLETIN subscription, you receive any two of the gifts listed above.

Sustaining Subscriber—\$25 or greater contribution annually. Besides renewal of your BULLETIN subscription, you receive your choice of any one of the gifts listed above.

Join Our Sustainer Campaign

Cost-benefit analysis has become something of a "new religion" in the business community and, it might be added, the petrochemical companies are its high priests and missionaries

The petrochemical industry's entry into the biomedical and ethical drug fields has involved them in efforts to reform the patent law (to allow for patents on living organisms), and in debates over health care delivery and the ethics of genetic engineering (not to mention possible anti-trust litigation). As one Stanford researcher observed, "the convergence of science and industry not only raises the ethical questions about the use of public funds for private profit, it also entails the danger that the lure of industrial profits will distort the direction and conduct of academic research" in the biomedical field(107). Moreover, the potential hazards of recombinant DNA research, a focus of controversy both within and without the scientific community, has broadened the industry's concern about governmental regulation (of science itself as well as industry's exploitation of science) and caused them to redouble their efforts to manage the debate about risk.

As we have seen, the industry is striving to foster a "serious," "responsible" debate about risk, to avoid adversary postures, emotional attacks, and mindless sloganeering, and to secure ideological legitimation for their sober propaganda campaign. The primary site for this serious discussion will certainly be the policy think tanks of the universities, which bring together the people (from management, political science, economics, nuclear engineering, and the like), who are already attuned to the lucrative hustle of risk accounting. Thus, an effort to examine the serious matter of "economic alternatives to regulation" (market incentives, pricing policies, etc.) is already well underway at Harvard, drawing on the resources of the Kennedy School of Government, the Economics and Political Science Departments, the Law School and the School of Public Health (108). And down the road at MIT there is much talk of a risk institute centered in the proposed Program on Environmental Effects of Chemicals and possibly tied in with the activities at Harvard (109). (The creation of a joint Harvard-MIT Program on the Impact of Chemicals on Health and the Environment was announced this Spring.)

A secondary site for this discussion will probably be the various humanistically-oriented interdisciplinary programs (in Science and

Society, Humanistic Perspectives on Science Technology, Science, Technology and Society, etc.) which have emerged on college campuses in recent years. The bulk of the support for these programs has come from the Mellon Foundation (Gulf Oil), the Sloan Foundation (General Motors) and, more recently, the Exxon Foundation. (At Cornell, the program was founded and directed by a Director of Exxon.) In these interdisciplinary settings, scientists, engineers, sociologists, political scientists, economists, historians and philosophers will ponder the weighty intellectual question of risk: "what do we mean by risk?", "how can it be assessed?", "how might societies and individuals best cope with risk?" The problem of risk, at the intersection of science and society, is custom-made for this new amply-endowed arena of ambitious amateurs. With universities under increasing pressure from the petrochemical, auto, pulp and paper and other industries to address this issue in a responsible way, we already have lectures and courses and symposia and special issues of scholarly journals and theses and term papers and fellowships—all devoted to thinking through the dilemma of risk. Leaving the world untouched and the political context of all this celebration unnoticed, they second the media message with academic aplomb: things are much more complicated than we thought.

Thus, at the University of Washington in Seattle, at the initiative of a nuclear engineering professor, the Engineering School has begun to offer a new interdisciplinary course on "Technological Risk: Deciding What's Acceptable." The purpose of the course, according to the well-intentioned faculty, is "to investigate the murky area of human reaction to modern risk to see whether people's reactions to risks created by modern technology could be studied as an academic course." Convinced that they are attuned to society's latest concerns, the faculty boasts that it confronts the "hard questions": "what is the nature of modern risk?" "what are the factors that can and should influence individual reactions to risk?" "what are the methods by which the public can evaluate and decide collective risk?" (110).

Missing from this list of hard questions is the **37**

one which we have been trying to answer in this essay: where did all this concern about the problem of risk come from so suddenly? In not posing this question, much less trying to answer it, the serious yet safe thinkers lose the concrete, the debate remains abstract and the problem of risk gets murkier than ever. With the public numbed by the multi-million dollar multi-media propaganda campaign, stalwart defenders of regulation caught up in a major political battle against "reform", regulatory agency staffs bogged down in litigation and niggling debates over numbers, experts enlisted in the cause for a "balanced" approach to risk and now would-be social critics overwhelmed by the perplexity of it all and caught up in the subtleties of their own thought, the chemical industry campaign against regula-

tion proceeds apace. Out of sight are the propagandists themselves and out of mind are the political questions that underlie regulation: the contradiction between production for social need and health and production for profit, the issue over who decides what will be produced and how it will be produced, the debates about private property and public control. The new corporate ideology for the 1980's, currently being peddled by the petrochemical industry, tables anew these long-standing items on the American agenda.

—David F. Noble

(David F. Noble is a member of the teaching faculty at MIT and author of *America By Design: Science, Technology and the Rise of Corporate Capitalism*, published by Knopf Publishers.)

REFERENCES

1. See, for example: Rothschild, Victor Nathaniel, "Coming to Grips With Risk," *Wall Street Journal*, March 13, 1979; Wildavsky, Aaron, "No Risk is the Highest Risk of All," *American Scientist*, January/February, 1979, pp. 32-37; and, Wilson, Richard, "Analyzing the Daily Risks of Life," *Technology Review*, February 1979.
2. Coney, Mary, "Asking the Hard Questions." *Curriculum Newsletter* of the Lehigh University Humanities Perspectives on Technology Program, 10: February 1979.
3. See "Scientists Debate Acceptable Risk." *New York Times*, February 27, 1979.
4. Bean, Alden S., "Addendum to HRA Program Announcement." NSF 78-78, August 1, 1979, Division of Policy Research and Analysis, National Science Foundation.
5. This discussion of the petrochemical industry is based upon: Commoner, Barry, "The Promise and Perils of Petrochemicals," *New York Times Magazine*, September 27, 1977; Commoner, Barry, "The Environmental Impact of the Chemical Industry," a paper delivered to the International Seminar on Chemical Factories, Warsaw, Poland, October 1973; and, Commoner, Barry, "The Chemical Industry's Approach to the Public," a talk delivered at the American Chemical Society Corporate Associates Twelfth Annual Symposium, Atlanta, November 9, 1978.
6. Quoted in Commoner, Barry, "The Promise and Perils of Petrochemicals." *New York Times Magazine*, September 27, 1977.
7. Zim, Marvin H., "Allied Chemical's \$20 Million Ordeal with Kepone." *Fortune*, September 11, 1978, p. 91.
8. For a discussion of the new regulatory agencies, see Passow, Nancy R., "US Environmental Regulations Affecting the Chemical Process Industries," *Chemical Engineering*, November 20, 1978, p. 173; Reich, Robert E., "Warring Critiques of Regulation," *Regulation*, January/February, 1979, p. 37; and, Kelman, Steven, "Regulation That Works," *The New Republic*, November 25, 1979.
9. Carter, Luther J., "An Industry Study of TSCA: How to Achieve Credibility," *Science*, January 19, 1979.
10. Compare, for example: "Dr. Stallones Tells ATHC 10-33% of Cancers May Be Linked to Occupation," *Occupational Health and Safety Newsletter*, March 22, 1979; with "Chemicals and Cancer - Consider the Facts," *Chemeology*, February 1979.
11. Ehrbar, A.F., "The Backlash Against Business Advocacy." *Fortune*, August 28, 1978, p.63.
12. *Ibid.*
13. Monsanto advertisements in magazines and television. - See, for example, *Seven Days*, June 5, 1979, p. 25; and the Monsanto booklet *Chemicals and Life*.
14. "Chemicals and Cancer - Consider the Facts," *Chemeology*, February, 1979. See also: "Industry Leader Calls for Blue Ribbon Panel on Cancer Risks," *News from Union Carbide. Wall Street Journal*, December 11, 1978.
15. Menzies, Hugh D., "Union Carbide Raises Its Voice," *Fortune*, September 25, 1978.
16. *Ibid.*
17. Quoted in Zim, *op. cit.*
18. Browning, Jackson B., "Cancer, Chemicals and the Environment: Focus on Solutions." Paper delivered to the Florida Audubon Society, October 27, 1978, p.7.
19. Cameron, Juan, "Small Business Trips Big Labor," *Fortune*, July 31, 1978; Ferguson, Tom and Rogers, Joel, "Labor Law Reform and Its Enemies," *The Nation*, January 6, 1979; Gail, Peter and hoerr, John, "The Growing Schism Between Business and Labor," *Business Week*, August 14, 1978; and Mills, D. Quinn, "Flawed Victory in Labor Law Reform," *Harvard Business Review*, May/June 1979.
20. Carter, *op. cit.*; Browning, *op. cit.*
21. Browning, *op. cit.*
22. Quoted in "Scientists Debate Acceptable Risk", *op. cit.* See also Wildavsky, *op. cit.*
23. Quoted in Carter, *op. cit.*
24. Quoted in Zim, *op. cit.*, p. 91.
25. Quoted in "Chemical Industry and EPA Square Off

- on TSCA Rules." *Chemical Week*, January 31, 1979, p. 27.
26. *Ibid.*
 27. *Ibid.*
 28. Weidenbaum, Murray I., "How Much Regulation Is Too Much?." *New York Times*, December 17, 1978, p. 16F.
 29. Sheils, Merrill, "What Price Regulation?" *Newsweek*, March 19, 1979. See also, Kelman, *op. cit.*
 30. Green, Mark, "Faked Case Against Regulation," *Washington Post*.
 31. Carter, *op. cit.*
 32. Quoted in Sheils, *op. cit.*
 33. Carter, *op. cit.*
 34. Clark, Timothy B., "Carter's Assault on the Costs of Regulation," *National Journal*, August 12, 1978, p. 1281; Baram, Michael S., "Regulation of Health, Safety and Environmental Quality and the Use of Cost-Benefit Analysis," Final Report to the Administrative Conference of the United States, March 1, 1979.
 35. Baram, Michael S. "Regulation of Health, Safety and Environmental Quality and the Use of Cost-Benefit Analysis." Final Report to the Administrative Conference of the United States, March 1, 1979. See all Bean, *op. cit.*
 36. *Ibid.*
 37. *Ibid.*
 38. *Ibid.*
 39. Sheils, *op. cit.*
 40. Baram, *op. cit.*
 41. Quoted in Baram, *op. cit.*
 42. Costle, Douglas, "EPA's Regulatory Reform Initiative," The Administrator's Status Report, August, 1978. See also: Martin, Douglas, "Dealing in Dirt: EPA Ponders Letting Concerns Buy and Sell 'Right' to Pollute Air," *Wall Street Journal*, December 15, 1978; and "Agency Proposes More Flexible Pollution Rules," *Wall Street Journal*, December 22, 1978.
 43. "EPA to Replace Two-Thirds of Top Staff in Massive Shake-ups of Regional Offices," *Wall Street Journal*, April 19, 1979.
 44. Costle, *op. cit.*
 45. Baram, *op. cit.*
 46. Quoted in "Cost-Benefit Analysis on Health Rules of 'Political Game'," *Current Report*, Bureau of National Affairs, 1977, p. 823.
 47. Ashford, Nicholas, "A Plea for a New Kind of Realism," *New York Times*, December 17, 1978.
 48. Green, Mark, *op. cit.*
 49. Quoted in Shiels, *op. cit.*
 50. Baram, *op. cit.*
 51. Carter, Luther J., "Dispute Over Cancer Risk Quantification," *Science*, March 30, 1979, p. 1324.
 52. OSHA's legal history is recounted in: Beck, Phil, "OSHA and the Courts," *Job Safety and Health*, December, 1978.
 53. This discussion of the OSHA benzene case is drawn from the following: Beck, *op. cit.*; Reich, Robert E., "Warring Critiques of Regulation," *Regulation*, January/February, 1979, p. 37; and Greer, Ed, "Lives in the Balance Sheet," *The Nation*, May 19, 1979.
 54. Greer, Ed, "Lives in the Balance Sheet," *The Nation*, May 19, 1979.
 55. *Ibid.*
 56. Quoted in *Ibid.*
 57. Shiels, *op. cit.*
 58. Greer, *op. cit.*
 59. Reich, *op. cit.*, Baram, *op. cit.*; and Green, Harold P., "The Risk-Benefit Calculus in Safety Determinations," *The George Washington Law Review*, March 1975, pp. 791-813. See also: Ashford, Nicholas A., "The Role of Risk Assessment and Cost-Benefit Analysis in Decisions Concerning Safety and the Environment," a paper delivered at the Food and Drug Administration Symposium on Risk/Benefit Decisions and the Public Health, Colorado Springs, February 17, 1978.
 60. Zimmerman, Burke, "Risk-Benefit Analyses: The Cop-Out of Government Regulation," *Trial Magazine*, February, 1978, p. 44.
 61. Green, Mark, *op. cit.*
 62. This discussion of the history of the use of cost-benefit analysis in government agencies is drawn primarily from Baram, *op. cit.*
 63. For a critical assessment of the supposedly successful applications of these techniques, see Hoos, Ida, *Systems Analysis in Public Policy: A Critique*. Berkeley: University of California Press, 1970.
 64. Bean, *op. cit.*
 65. Carter, *op. cit.*
 66. Quoted from a Monsanto booklet for employees: Commoner, Barry, "The Chemical Industry's Approach to the Public," a paper delivered at the American Chemical Society of Corporate Associates Twelfth Annual Symposium, Atlanta, November 9, 1978.
 67. Quoted from a Monsanto booklet, *Chemicals and Life*, in: *Ibid.*
 68. Quoted in Carter, Luther J., "An Industry Study of TSCA: How To Achieve Credibility," *Science*, January 19, 1979.
 69. Reich, Robert B., "Economics: New Demand for the 'Dismal Science'," *The National Law Journal*, May 7, 1979, p. 19. See also: Ashford, Nicholas, "The Usefulness of Regulatory Impact Analysis in Decisions Concerning Health, Safety, and the Environment," testimony presented before the Committee on Governmental Affairs, US Senate, May 16, 1979.
 70. Inhaber, Herbert, "Risk With Energy from Conventional and Non-Conventional Sources," *Science*, February 23, 1979.
 71. Wilson, *op. cit.*
 72. "Cooling Down," *Wall Street Journal*, April 15, 1979.
 73. For an overview of risk accounting procedures and problems, see: Ravetz, Jerry *et al*, *The Acceptability of Risks*. London: Council for Science and Society, 1977.
 74. Ashford, *op. cit.*
 75. Rasmussen, Norman, *et al*, "Executive Summary," *Reactor Safety Study*, US Nuclear Regulatory Commission, pp. 8-10.
 76. Baram, *op. cit.*
 77. Reich, *op. cit.*
 78. Green, Mark, *op. cit.*
 79. Baram, *op. cit.*
 80. Green, Harold P., *op. cit.*
 81. Baram, *op. cit.*
 82. Green, Mark, *op. cit.*
 83. Baram, *op. cit.*
 84. Fay, James, A talk delivered at MIT Technology and Policy Program Symposium on Liquid Natural Gas Policies, January, 1979.
 85. "Federal Regulation and Regulatory Reform." Report of the Subcommittee on Oversight and Investigation of the Committee on Interstate and Foreign Com-

- merce, US House of Representatives, 95th Congress, Second Session, October, 1976.
86. Baram, *op. cit.*; Ashford, *op. cit.*
 87. Quoted in "Cost-Benefit Analysis on Health Rules Part of 'Political Game'," *op. cit.*
 88. Browning, *op. cit.*
 89. Carter, "An Industry Study of TSCA." *op. cit.*
 90. Wiesner, Jerome, "Commencement Address," MIT, June 4, 1979.
 91. *Tech Talk*, MIT, June 6, 1979, p. 1.
 92. "Business Gifts to Universities Rise 23.3 Pct.," *Chronicle of Higher Education*, June 18, 1979, p. 1.
 93. Noble, David F., *America By Design: Science, Technology, and the Rise of Corporate Capitalism*. New York: Knopf, 1977.
 94. Interview with participants.
 95. *Interdisciplinary Programs in Health*, brochure of the Harvard School of Public Health.
 96. Loeb, Marshall, "Connecting for Innovation." *Time*, May 14, 1979, p. 7.
 97. *Ibid.*
 98. *Ibid.*
 99. *Newsweek*, June 4, 1979, quoted in Pfund, Nancy, "Innovation in Medicine: Policymaking and the Public," typescript, Division of Health Services Research, Stanford University.
 100. "A bill to Promote US Scientific and Technological Innovation for the Achievement of National Goals, to Amend the National Science Foundation Act of 1950, and for Other Purposes." H.R. 4673, 96th Congress, First Session, introduced by Rep. Brown of California, June 28, 1979.
 101. "For Monsanto, a New Direction: Health Care," *Business Week*, July 9, 1979.
 102. Pfund, *op. cit.*
 103. Loeb, *op. cit.*; "For Monsanto, a New Direction: Health Care," *op. cit.*
 104. Pfund, *op. cit.* See also: Mooney, P.R., *Seeds of the Earth: A Private or Public Resource?* London: International Coalition for Development Action, 1979, p. 60.
 105. Pfund, *op. cit.*
 106. "For Monsanto, a New Direction: Health Care," *op. cit.*
 107. Pfund, *op. cit.*
 108. Zeckhauser, Richard, *et al*, "Incentive Arrangements for Environmental Protection: A Critical Examination" typescript proposal.
 109. Interviews with participants.
 110. Coney, *op. cit.*

Norman Birnbaum, Blair Clark,
Ramsey Clark, Fred Cook, Terrence Des Pres,
E.L. Doctorow, Richard Falk, Jules Feiffer,
Tom Ferguson & Joel Rogers, Frances FitzGerald,
James Goodman & Dorothy Samuels, Philip Green,
Christopher Hitchens, Leonard Kriegel,
Penny Lernoux, Sanford Levinson,
Carey McWilliams, Aryeh Neier, Marcel Ophuls,
Nora Sayre, Robert Sherrill, Calvin Trillin,
Kurt Vonnegut, Alan Wolfe **write it.**

John Alcorn, Marshall Arisman, Tony Auth,
Seymour Chwast, Robert Grossman, Frances Jetter,
Ed Koren, David Levine, Lou Meyers, Ed Sorel
illustrate it.

Victor Navasky **edits it.**

We've changed the face of The Nation.
The new Nation is something to see.

Why is today's Nation, from editorial
to the arts, wiser and wittier than anything
in the field? The answer is in the people
who write it, illustrate it, and edit it.

Join them. Say "yes" to our enticing
offer in the coupon.

The Nation.

72 FIFTH AVENUE, NEW YORK, N.Y. 10011

YES! Send me six months (24 issues) of The Nation at the low introductory rate of \$9.95. I understand I may cancel at any time and receive a prompt refund for all undelivered copies.

I enclose \$9.95. For saving you billing costs I will receive four extra issues free.

Enclosed is \$21 (special discount offer) for one full year (47 issues).

*Add \$5 for postage for Canada and Mexico; \$7 other foreign subscriptions. Subscriptions payable in equivalent U.S. funds.

Name _____ (PLEASE PRINT)

Address _____

City _____ State _____ Zip _____

3HP1 41

Index to Volume 11

(Including Numbers 81-82 through Volume 11, Number 6)

A

Abortion—Jan.-Feb. '78*, 81-82; Vol. 11, No. 5.
(ADAMHA)—Vol. 11, No. 5.
Antibiotics—Vol. 11, No. 5 (in livestock feed)*.
Beekman Downtown Hospital—Vol. 11, No. 3*.
Benzene—81-82*.
Health and Hospitals Corporation (HHC)—
Jan.-Feb. '78*.
Herbicides—83-85; Vol. 11, No. 3 (letter).
Medical Technology—83-85 (review); Vol. 11,
No. 2*;
Midwifery—Vol. 11, No. 4 (lay midwives).
(NIOSH)—Jan.-Feb. '78.
(Schweiker Amendments); Vol. 11, No. 5; Vol.
11,
Antibiotics—Vol. 11, No. 5 (in livestock feed)*.
Asbestos—83-85 (litigations); Vol. 11, No. 5.

B

Beekman Downtown Hospital—Vol. 11, No. 3.
Benzene—81-82*.
Blood—81-82.
Blue Cross—Jan.-Feb. '78*.
Bohique—Vol. 11, No. 1*.

C

Cancer—Vol. 11, No. 1 (review).
Chicago Area Committee on Occupational Safety and
Health (CACOSH)—Jan.-Feb. '78.
Child Health Assurance Program (CHAP)—Vol. 11,
No. 4; Vol. 11, No. 5.
Committee on Safety and Health (COSH)—81-82.
Computerized Medical Records—81-82 (review).
Congressional Black Caucus—Vol. 11, No. 2.
Cook County Hospital (Chicago)—Vol. 11, No. 3.
Corporate Dumping—Vol. 11, No. 3; Vol. 11, No. 6.
Cost-Benefit Analysis—Vol. 11, No. 6.
Cost-Control—Jan.-Feb. '78*; 83-85; Vol. 11, No. 3*.

D

Deinstitutionalization (Mental Health)—83-85; Vol. 11,
No. 4.
Depo Provera—81-82; Vol. 11, No. 2.
Detroit—Vol. 11, No. 6.
Drug Companies—81-82*; Vol. 11, No. 2*.
DuPont Company—Jan.-Feb. '78*.

E

Ehrenreich, John—Vol. 11, No. 3 (review).
Electronic Fetal Monitoring—83-85; Vol. 11, No. 1.
Environmental Health—83-85; Vol. 11, No. 3; Vol. 11,
No. 6.
Environmental Protection Agency (EPA)—81-82*;
Vol. 11, No. 6.
Epstein, Samuel—Vol. 11, No. 1 (review).

F

Family Practice—Jan.-Feb. '78; 81-82*.
Federal Trade Commission (FTC)—Jan.-Feb. '78*;
Vol. 11, No. 4.
Food and Drug Administration (FDA)—Vol. 11, No. 5*.
Foreign Nurse Graduates—81-82*; Vol. 11, No. 3;
Vol. 11, No. 6 (letter).
Fraiberg, Selma—83-85 (review).

G

Galaxy Chemical Company—Jan.-Feb. '78*.
Government Regulation—Vol. 11, No. 6.

H

Health Care Financing Administration—Vol. 11, No. 5.
Hahnemann Medical College and Hospital—
Jan.-Feb. '78*.
Health and Hospitals Corporation (HHC)—Jan.-Feb. '78*;
83-85; Vol. 11, No. 1.
Health Maintenance Organizations (HMOs)—
Jan.-Feb. '78*.
Health Planners Network—81-82*; Vol. 11, No. 6*.
Health Systems Agencies—83-85; Vol. 11, No. 1; Vol. 11,
No. 5; Vol. 11, No. 6.
Health Workers—Jan.-Feb. '78*; 81-82*; Vol. 11, No. 2;
Vol. 11, No. 5.
Herbicides—83-85; Vol. 11, No. 1*.
Hoffman-LaRoche—Vol. 11, No. 1*.
Home Health Care—83-85; Vol. 11, No. 3 (letter).
Hospitals, Bed Reduction Plans—Vol. 11, No. 6.
Hospital Association of New York State—Jan.-Feb. '78*.
Hospital Unions—Vol. 11, No. 2; Vol. 11, No. 5.
Hudson County, N.J.—Vol. 11, No. 1. (occupational
physicians).
Human Experimentation—81-82; Vol. 11, No. 1*.
Hyde Amendment—Jan.-Feb. '78*; 81-82; Vol. 11, No. 5.
Hypertension—81-82* (class).

I

IUDs—81-82.

* Asterisks indicate short items—for example, news briefs, announcements, etc.

J

Jensen, Arthur—Vol. 11, No. 1*.
 Jewish Hospital of Brooklyn—Vol. 11, No. 4 (history).
 Johns-Manville Corp.—Vol. 11, No. 5.
 Joint Commission on Accreditation of Hospitals (JCAH)—
 Jan.-Feb. '78*.

K

Krieger, Dolores—Vol. 11, No. 5 (review).

L

Lead Poisoning—Vol. 11, No. 5*.
 Lithium—81-82*.
 Los Angeles Health Systems Agency—Vol. 11, No. 1.
 Love Canal—83-85.

M

Malpractice—Vol. 11, No. 4*.
 Medical Education—Jan.-Feb. '78*; Vol. 11, No. 2;
 Vol. 11, No. 3.
 Medical Efficacy—Jan.-Feb. '78*.
 Medical Labs—81-82*.
 Medical Technology—83-85 (review; Vol. 11, No. 2*;
 Vol. 11, No. 4*; Vol. 11, No. 5*.
 Medicare and Medicaid Act of 1977—Jan.-Feb. '78*.
 Mental Health—83-85; Vol. 11, No. 4.
 Metropolitan Hospital (NYC)—Vol. 11, No. 3*.
 Midwifery—Vol. 11, No. 4. (lay midwives).

N

National Health Insurance (NHI)—Jan.-Feb. '78*;
 Vol. 11, No. 1.
 National Health Planning and Resources Development Act
 (PL93-641, 1974)—83-85.
 National Health Service Corps (NHSC)—Vol. 11, No. 5.
 National Institute for Occupational Safety and Health
 (NIOSH)—Jan.-Feb. '78*.
 National Women's Health Network—Vol. 11, No. 2.
 New Right—81-82.
 New York City Department of Health—83-85.
 New York Infirmary—Vol. 11, No. 3*.
 Nurses—Jan.-Feb. '78*; 81-82; 83-85*; Vol. 11, No. 1*;
 Vol. 11, No. 2; Vol. 11, No. 3; Vol. 11, No. 5.
 Nurses' Network—83-85*.

O

Obstetrics—Vol. 11, No. 2 (East Harlem)..

Occupational Health—Jan.-Feb. '78; 81-82; 83-85;
 Vol. 11, No. 1; Vol. 11, No. 2; Vol. 11, No. 4; Vol. 11,
 No. 5; Vol. 11, No. 6.
 Occupational Physicians—Vol. 11, No. 1; Vol. 11, No. 5.
 Occupational Safety and Health Administration (OSHA)—
 Jan.-Feb. '78; 81-82*; Vol. 11, No. 2; Vol. 11, No. 4
 Schweiker Amendments); Vol. 11, No. 5; Vol. 11,
 No. 6.
 Office of Civil Rights (OCR)—Vol. 11, No. 4.

P

Patient Representatives—Vol. 11, No. 6*.
 Petrochemical Research—Vol. 11, No. 6.
 Petrochemical Industry—Vol. 11, No. 6.
 Philadelphia General Hospital—Vol. 11, No. 5.
 Primary Care—Vol. 11, No. 4 (Seattle).
 Professional Standards Review Organization (PSROs)—
 Jan.-Feb. '78*; Vol. 11, No. 4*.

R

Radiation—Vol. 11, No. 1.
 Regulation of Petrochemical Industry—Vol. 11, No. 6.
 Risk Analysis, Risk Accounting—Vol. 11, No. 6.
 Roosevelt Hospital (NYC)—Vol. 11, No. 3*.

S

San Francisco—Vol. 11, No. 6.
 Seattle—Vol. 11, No. 4 (primary care).
 Self-Help—Jan.-Feb. '78.
 Sophie Davis Center for Bio-Medical Education—Vol. 11,
 No. 2*.
 St. Luke's Hospital (NYC)—Vol. 11, No. 3*.
 Sterilization—Jan.-Feb. '78.

T

Three Mile Island—Vol. 11, No. 1.

U

United Mine Workers of America (UMWA)—81-82
 (contract).
 Urology—Vol. 11, No. 5*.

W

Westin, Alan et al.—81-82 (review).
 Women's Health—Jan.-Feb. '78; 81-82; 83-85; Vol. 11,
 No. 2; Vol. 11, No. 4; Vol. 11, No. 5.

Health/PAC began publishing on a volume year basis with Volume 11, Number 1, September 1979. It followed Numbers 83-85, a triple issue.

**Human Sciences Press
72 Fifth Avenue
New York, New York 10011**