THE INTERSECTIONS OF MEDICINE AND LAW: BASES FOR FUTURE COLLABORATION

MARY ELLEN CALDWELL*

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Critical trends in world affairs are converging in such a way as to force reappraisal of the interrelations between the health of mankind and the attainment of peace and security. Internationally, the twin specters of overpopulation and unavoidable famine, the flood of man-made pollutants into every part of the human environment, and the accelerating proliferation of technologies for atomic-biological-chemical warfare are but a few of the global threats to present populations and those of the immediate future. Within industrialized countries, urban and rural poverty, pollution, and social disorganization are increasingly perceived as detrimental to human well-being. In most of the developing countries, urban blight and rural depression place overwhelming stresses on limited economic resources available for raising levels of health and welfare. Political scientists, economists, sociologists, philosophers, and a variety of other specialists have recognized the complexity of the issues posed by these hazards and the need for comprehensive programs to deflect ominous trends toward social chaos.

In 1968, Dr. Rene J. Dubos described the then current state of knowledge as follows:

The most spectacular advances in health during the past 100 years have come from improvements in the interplay between man and his environment. Better sanitation and nutrition, shorter working hours, less exposure to the inclemencies of the weather, and immunization against a few of the most destructive agents of disease are among the changes that have helped modern man to cope successfully with his environment.

In contrast, knowledge is incredibly primitive with regard to the biological effects of the threats to health created by the new ways of life. Crowding, environmental pollution, indirect and delayed effects of drugs and food additives, constant exposure to a multiplicity of new physical and mental stimuli, alienation from natural biological rhythms, are but a few of the aspects of modern life which certainly affect the well-being of man and even probably the future of the human race. Yet environmental biology is an almost nonexistent scientific discipline; hardly any effort is being made to develop it, either in universities, research institutes, or medical schools.¹

During the two years following this dismal accounting of scientific non-

^{*} Professor of Law and Chairman, Mershon Caribbean Seminar on International Legal Problems of Community Health, The Ohio State University.

 $^{^1}$ House Comm. on Science and Astronautics, The International Biological Program, 90th Cong., 2d Sess. 26 (1968).

interest, universities have responded favorably to the call for relevant study. Within the law schools, interest in matters affecting the quality of life and of human environment also increased. The basic curriculum, however, reflects few formal changes directly responsive to the demands now being made upon the legal system to ordain acceptable environmental controls and performance standards. Such a response will require much closer collaboration between the health sciences and the law.

Lawyers have traditionally concerned themselves with the management of power; that is, with allocations of legal and political jurisdiction over matters affecting public order and welfare. Allied medical professionals have been directly involved in improving the conditions of human life and well-being, but the points of contact between the legal and the health institutions have been quite limited. Medical-legal interactions have been essentially litigation-oriented, not comprehensively addressed to legislative and administrative problems of attaining optimum levels of health. Malthusian solutions to the problems of overpopulation and the possibility of irreversible ecological changes on planet Earth are prospects so grim that responsible scientists and lawyers are being forced to take a new look at the critical roles they must jointly play in the future of man's very existence. The simplest expression of their mission at home and abroad is boldly stated in the Constitution of the World Health Organization. There, health is defined as "a state of complete physical, mental, and social well-being and not merely an absence of disease or infirmity."

The suggestions made in this paper for some new joint enterprises involving the professional schools are intended to add impetus to movements already under way elsewhere in both medicine and law. At the international level, for example, the 1970 World Meeting on Medical Law has broadened its agenda to include medical-legal topics far beyond the traditional domain of forensic medicine. That meeting includes studies of reanimation, the criteria of death, the rights of the individual and of society to intervene in the process of procreation, and the protection of the population against air, water, noise, and other forms of pollution.³ Within the United States, the professional organizations themselves are moving to deal more specifically with problems within the shared competence of medicine and law. An example is the American Bar Association's establishment, in 1969, of new committees to deal with hunger, overpopulation, and housing.⁴ During the same year, the presiding justice of New York City's highest court named a panel of lawyers and doctors to study medical-legal problems affecting both professions and their relation to

 $^{^2}$ World Health Organ. Const. preamble (1946), WHO Basic Documents 1 (19th ed. 1968).

³ See, Provisional Program, Second World Meeting on Medical Law, Washington, D.C., 18-21 August 1970.

^{4 15} Am. B. NEWS 6 (1970).

public welfare. Specifically designated for consideration were "the role of psychiatry in court, heart transplants, and the treatment of narcotics [sic]."

The 1960's brought about major curricular reforms within medical schools throughout the country, many of which were attempts to answer the social needs of the communities which their graduates serve. The law schools moved more slowly, but there is reason to believe that they, too, will soon change. An effort is already under way in the Association of American Law Schools to create a broader basis for collaboration with persons in the health fields along some of the lines suggested here.

This paper represents an attempt to clarify some of the issues that must be dealt with in future collaboration. It is not unthinkable that large-scale, problem-oriented research institutes could be organized for translating health and medical knowledge into policy. No novelty resides in the institute idea itself. Scientific and social scientific research bodies abound in this country and throughout the world. None, however, has made full use of the special expertise of the legal profession in channeling health-related knowledge into the policies of the legal system. Whether it be a completely new enterprise—such as an East-West "think tank" or a "center of excellence" on the university campus—the new ingredient would be the incorporation of lawyers as essential partners in implementing the best of scientific knowledge into public policy and practice.

On a more modest scale, and looking toward future cooperation between the health and legal professions, this working paper could form the basis of planning joint law-medicine degree programs. Preliminary reports on Dr. William J. Curran's survey of persons holding both a law degree and a degree in one of the health professions show that the present reservoir of dual degree holders is small indeed, and very few of them are actively engaged in broadening the scope of medical-legal interaction.⁸

Because the legal profession continues to classify its subject matter under traditional headings, it is convenient to discuss the common interests of

⁵The presiding justice called the formation of the panel "an event of national significance." TRIAL 7 (June/July 1969).

⁶ See discussion of Soviet and Western representatives' talks on the establishment of a large-scale, internationally staffed institute to study the problems of industrialized societies, e.g., to develop techniques and methodologies that might be universally employed in dealing with pollution, transportation, housing, and education. 166 SCI. 1382 (1969). See also Dr. James A. Shannon's proposal for a Natonal Academy of Medicine, in Medicine, Public Policy and the Private Sector, 281 The New England J. of Med. 135 (1969).

 $^{^7}$ See National Science Foundation, Knowledge into Action: Improving the Nation's Use of the Social Sciences (1969).

⁸ See William J. Curran, Preliminary Report on Interprofessional Education in Law and Medicine (mimeo. 1969). It is estimated that only 205 persons in the United States hold both law and medical degrees, and about 50 MDs are currently enrolled in law schools. See also, Mapes, Hybrid Experts, Wall Street Journal, Feb. 3, 1970, at 1. The only joint degree program in the United States was begun at Duke University in the fall 1969. According to Mapes, Duke integrates courses in both its law and medical schools so that students may win both degrees in six years of graduate study.

health specialists and lawyers in conventional legal categories. The two principal divisions are national (or domestic) and international law. Since the paper is addressed primarily to the role of the academic sector in greater medical-legal cooperation, it embraces some other suggestions for interprofessional education as well. Its main concern, however, is with a re-examination of the role of law and the lawyer in solving health problems of today and those that may arise in the future.

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Both the medical system and the legal system contribute to the community's effort to maximize the well-being of its members. The health system works directly; the legal system works indirectly, in an indispensable, but subordinate way. Although the goal of the health system is not a legal one, it must operate in a legally circumscribed arena. Necessarily, then, there is an interaction between the two systems.

The legal system has broader coverage than the health system. As it has developed in the past two hundred years, it places a high value on what can be called the constitutional context of well-being, upon the security and welfare of its individual citizens, upon express and implied human rights given constitutional priority to ensure the broadest possible sharing of respect for human dignity. The legal system, however, is also a primary and direct mechanism for the allocation of community resources in the promotion of human well-being. Whether this system of protected rights and of resource distribution adequately serves the health goals of a people is the subject of continual concern among those within its domain. The special function of the legal profession is to handle the claims of individuals and groups that seek maintenance of the system, or its change. The lawyer's technical training and expertise enables him to formulate such demands and to assist legislative, executive, administrative, and judicial decision-makers to establish the legal policies that govern the health system as a whole.

The health system itself focuses more narrowly on well-being. The simplest model describing that system would be the following:

MODEL OF HEALTH SYSTEM

People (potential patients) aspiring to the highest attainable levels of well-being and other values

situated in an Environment

(including resources and institutions) containing natural and man-made pathogenic agents and processes

⁹ "It is estimated that today more than 75% of court cases (other than contract) require some type of medical participation. In this area the medical profession has a direct joint responsibility to aid in the administration of justice . . ." Kaul, A Trust Imposed on Professions, AMA NEWS 4 (Nov. 25, 1968).

treated by

Health Specialists (research and clinical) providing preventive, curaand Institutions tive, and rehabilitative services

The health system gives rise to a large number of demands addressed to the legal system. In the discussion that follows, an effort has been made to suggest the types of health claims that have been or may be addressed to the legal decision-making process and to illustrate the need for interprofessional cooperation in making appropriate decisions on those claims.

A. National or Domestic Law

Constitutional Law. As presently taught in American law schools, no great emphasis is given to constitutional problems that bear upon individual or community health. The principal concerns of civil rights exponents for equal access to political processes and equal economic opportunity have tended in recent years to overshadow the claims of individuals for physical and mental health. A few celebrated cases focus on rights to privacy in matters of contraception, 10 and humane treatment of prisoners and the mentally ill.11 But none articulates a constitutional guarantee of a "right to health." The day is not far away, however, when claims to health will receive the kind of scholarly attention already given to commerce and to civil rights and liberties. Indeed, proposed constitutional amendments to declare a healthful environment an inalienable human right may foretell a new direction in constitutional literature relating to individual well-being.¹² The massive surge of public interest in the population problem, consumer protection, the safety of prescription drugs, the purity of foods, and pollution of all kinds is bringing to courts and legislative halls some new issues for constitutional interpretation. The prosecution of these diverse claims has demanded medical-legal cooperation. and as state and local governments follow the federal lead, the bases for interprofessional teamwork will widen. In all of these areas, lawyers are called upon to translate the knowledge of the life sciences and medical expertise into the factual bases for legal policy.

State and Local Government: Planning and Development. During the past half century, the major foci of this branch of law have been on land use planning, urban development, and the maintenance of adequate

¹⁰ Griswold v. Connecticut, 381 U.S. 479 (1965).

¹¹ Robinson v. California, 370 U.S. 660 (1962).

¹² See H. J. Res. 1321, 90th Cong., 2d Sess. (1968) embodying a proposal to amend the Constitution to assert "the right of the people to a pure environment." See also, "The Congress recognizes that each person has a fundamental and inalienable right to a healthful environment..." S. 1075, 91st Cong., 1st Sess., Title I, § 101(b) (1969); and N.Y. Times, Jan. 20, 1970, at 14.

revenue bases for local government. Community planning has been comprehensive, but has not included either education planning or health planning functions. Recent federal legislation has encouraged state and local governments to coordinate health planning with other community planning activities. Thus, housing and building codes, zoning regulations, sanitation systems, and other health-related matters became the relevant context for comprehensive health plans at the community level. These developments have given rise to two diametrically opposed hypotheses. One of these asserts that resource allocation for health services increases in proportion to the integration of health planning in comprehensive community planning processes. The contrary hypothesis suggests that health services tend to receive a proportionately smaller share of community resources when health planning is so integrated. Whether either of these assumptions holds true may, in the long run, be a function of the lawyer's role in implementing health plans.

The medical profession has begun to gather some empirical data that may prove useful in prosecuting community health claims. They have found that individual citizen's perception of the "environment of well-being" extends far beyond specific medical matters. Periodic surveys conducted in East St. Louis show two distinctive types of complaints: (1) those that are environmental (subject to remedy by general community planners), and (2) those that are directly related to the health system.¹⁴

Complaints about environmental factors included items, such as failure to repair streets and to clean alleys; inefficient garbage and trash pickup; the prevalence of roaches, rodents, insects; failures of the sewer system; etc. Health complaints focused on dental services, prenatal and postnatal facilities and care, physicians' services, and an assortment of other deficiencies in the health care delivery system.

Another illustration of the intimate relations between health and urban planning can be found in the 1969 report by the American Academy of Pediatrics on childhood lead poisoning. The Academy stated flatly that rehabilitation or elimination of substandard housing is the only practical solution of this health problem. Dr. Milford O. Rouse, former president of the American Medical Association, stated the matter succinctly: "Curing the health problems of the ghetto is a matter of curing the ghetto itself; of destroying the causes and eliminating the symptoms of what we now recoganize as the ghetto life." The editors of the American Medical News thereafter pointed an accusing finger at others by saying

The medical profession did not invent slums, nor did it cause them.

¹³ See Partnership for Health legislation, Section 314(a) of the Public Health Service Act, as amended by PL 89-749.

¹⁴ AM. MED. NEWS 8 (Aug. 18, 1969).

¹⁵ AM. MED. NEWS 4 (Sept. 29, 1969).

¹⁶ Id.

And the health problem of the slum dweller is only one of his problems. Among the others: housing is permitted to deteriorate by slum landlords; health and sanitation regulations are either inadequate or unenforced; trash and garbage collections are inadequate; and malnutrition is wide-spread.¹⁷

It would be difficult to state a clearer call than this for legal assistance in implementing health goals.

Taxation. Adequate funding is a sine qua non of any program operated by government. Tax revenues have traditionally provided a large portion of such funds. A few legal scholars have considered the problems of public and private financing of health services. Others, working closely with economists, have made useful contributions to tax reform measures designed to protect income levels sufficiently high to provide adequate family nutrition and medical care. In the near future, however, as national policy moves toward stabilization of population growth and the maintenance of high levels of environmental quality, tax policy will doubtless be viewed as one of the principal instruments of social engineering. It is not too early to begin inquiries about the potential effectiveness of tax incentives in private decisions, for example, about having another child, or about installing pollution abatement devices.¹⁸

Administrative law. Since so many federal, state, and local agencies are charged with the administration of laws designed to promote community health, administrative law has an obvious relevance for medical-legal cooperation. There is ample opportunity in the law curriculum for the development of special studies focused upon the jurisdiction and the rule-making, regulatory, and adjudicatory functions of agencies charged with control of environmental safety, the purity of foods and drugs, disease and pest control, and other protective services in the public sector.¹⁹

Such a development has already occurred in the field of food and drug law. Several texts are now available for advanced courses in the law schools.²⁰ There is some question whether current offerings are suitable for students in the health professions, but the interest of these preprofessionals in the law cannot be doubted. During the summer of 1969, students from law schools and medical schools worked for the Center for the

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¹⁸ See Senator Robert W. Packwood's February 24, 1970 proposal to stop granting tax exemptions for any new child born after 1972 into a family which already has three children. S. 3502, to amend the Internal Revenue Code of 1954, 91st Cong., 2d Sess. (1970).

¹⁹ Harvard Law School recently offered a seminar described in its bulletin as follows: Legal Protection of Environmental Quality. This seminar will examine problems for government, industry, and science resulting from the impairment of the quality of the environment, especially by technological developments and urban growth. Consideration will be given to such matters as the control of water and air pollution and the regulation of nuclear power reactors, and to the roles of federal, interstate, state, and local agencies in affording protection.

²⁰ See, e.g., Thomas W. Christopher, Cases and Materials on Food and Drug Law (1966).

Study of Responsive Law in an investigation of the Food and Drug Administration's procedures for setting food quality standards.²¹ The information assembled by these interdisciplinary teams was used as the basis for a book on the subject, similar to the 1968 law student study of the Federal Trade Commission.²² The success of the collaborative effort in the field augurs well for the future of joint training in the professional schools themselves.²³

Many, but by no means all of the medical-legal issues in administrative law, relate to consumer interests. Health scientists are also beneficiaries of legal protection. The most spectacular case in recent months dealt with the Department of Health, Education, and Welfare's controversial blacklists. In 1969, the Department had about 430 separate scientific advisory groups.24 For several years, representatives of the major scientific and medical organizations protested the security clearance requirements imposed by HEW upon advisors to nonsensitive, non-security panels. Their objections were voiced in language dear to the hearts of constitutional lawyers: (1) the grounds for rejection of appointees are veiled in secrecy; (2) the rejections often appear arbitrary and based upon irrelevant information; and (3) there is no provision for appeal or for confrontation of the evidence which is being used to disqualify a scientific adviser. 25 The matter has been resolved by administrative action in a manner designed to meet due process requirements, but it does serve as a reminder to both lawyers and health scientists of their joint involvement in maintaining the machinery of official justice.

Legislation. At least one of the standard texts dealing with the lawyer's role in legislative policy research, drafting, lobbying, and statutory interpretation has focused upon a public health statute as an example of the problems confronting lawyers who practice in the legislative arena.²⁸ Students from the health professions could bring an added dimension of interest and expertise to class discussions of the policy and legal issues involved in this area of joint concern. As paired medical-legal teams, they could also share responsibilities in fact-gathering, drafting, and legislative strategy for measures involving the health system and environmental controls.

Current legislative hearings on measures designed to ban biocides or to

 $^{^{21}}$ The Center was established in 1969 by Ralph Nader. Its headquarters is located at 1908 Q St. N.W., Washington, D. C. 20009.

²² James S. Turner, THE CHEMICAL FEAST (forthcoming but as yet unpublished.)

²³ See also, the account of a doctor-lawyer's experience as counsel for a pharmacuetical company in dealing with the FDA. Mapes, supra note 8.

²⁴ See 164 Sci. 1499 (1969).

²⁵ Id.

²⁶ JULIUS COHEN, MATERIALS AND PROBLEMS ON LEGISLATION (2d ed. 1967), focuses upon the Federal Food, Drug and Cosmetic Act of June 25, 1938, and its antecedents.

set guidelines for poultry inspection or to permit abortions of rubella-deformed fetuses are calling forth scientists whose methods and techniques are quite foreign to the layman. Lawyers play a key role in translating such testimony into terms that are meaningful to the public and to legislative decision-makers as well. Recent trends indicate that a much larger proportion of future legislative time will be devoted to hearing and evaluating scientific testimony. In order to facilitate legislative judgment and decision, it is imperative that examination and cross-examination of scientific experts be conducted in such a way as to make the scientific method intelligible. Unless the legal profession makes a special effort to train its practitioners in the fundamentals of contemporary scientific philosophy and method, it will be ill-equipped to perform its informing function in the legislative process. Who in the profession today can adequately evaluate the conflicting testimony of the health experts who testified in the 1969-70 Senate hearings on the safety of "the pill," or of the research scientists who debated the question of human consumption of cancerous chickens?

Social Legislation. Despite the similarity in names, social legislation is not just another form of legislation for society. Rather it deals with public and private techniques of income maintenance for the unemployed in a wage economy. Workmen's compensation, disability insurance, medical services for welfare and social security beneficiaries are touched upon in the usual offerings under this title.

Doctors and lawyers have long worked together in determining disability. This provides a ready-made basis for further medical-legal cooperation, but because social legislation covers so many other general public programs, and their private counterparts, health problems are seldom given more than passing notice.

Opportunities for a broad expansion of interprofessional efforts have been created by recent developments in this area of the law. Among the more interesting impacts that might be appraised in medical-legal seminars are: the indirect upgrading of allied medical professional standards brought about by state efforts to qualify for federal grants-in-aid; the relation of private and governmental health insurance programs to the inflation of demands for health care far beyond existing medical manpower and institutional capacity; the relationship between such programs and the prices of drugs used by the indigent and the aged. Without cooperative inquiry, rational solutions of the economic and policy problems raised by such health legislation are not likely to occur.

Labor Law; Arbitration. Although arbitration is hardly limited to labor disputes as a technique of conflict resolution, its relation to labor law is of increasing relevance to strikebound hospitals and other entities whose performance is essential to the maintenance of health. Labor-management problems affect the delivery of health care in so many ways that lawyers

should give special consideration to those disputes that bear directly upon public and private health institutions. M.D.'s themselves may want to know more about the legal implications of the notorious "doctors' strikes" elsewhere in the world. In such inquiries, representatives of the allied health fields would be indispensable collaborators.

On an entirely different level, labor lawyers are also concerned with manpower needs for the achievement of national health, housing, and other goals. Dael Wolfle, publisher of *Science*, recently discussed the dilemmas facing law and medicine in the attainment of such goals. Citing the analyses by L. A. Lecht and C. L. Schultz, he observed that "we can devote large sums to urban renewal, pollution abatement, improved education, better health . . . and other goals, but there will not be enough workers [in 1975] to do everything desirable." His analysis of the demand-supply situation is of immediate interest to doctors and laywers.

To spend an additional billion dollars a year on housing or to spend that sum on education and health would, in either case, call for an increase in the labor force of about 100,000 workers. But the mix would be very different in the two cases. The housing effort would require 61,000 craftsmen, operatives, and laborers per billion dollars; the health and education goals would require only 16,000 workers in these categories. In contrast, the health and education goals would require 46,000 teachers, doctors, dentists, and other professionals per billion dollars, while the housing effort would call for only 8,000 professionals.

Unemployment—it is widely known—is highest among young workers and in minority groups. Programs that would most quickly create many new jobs for members of these groups include housing, urban renewal, better transportation, and the improvement of water supplies and other natural resources. Judgments would surely differ among policy makers as to whether these are the goals of highest individual merit, but they are important in their own right and they all have a plus factor in their labor-market implications. Other goals cannot be forgotten, but these are the ones to emphasize in the next few years.²⁷

Business Enterprises. Corporations, partnerships, and other legally recognized forms of association for professional, commercial, and industrial purposes are variously employed by health specialists in the delivery of health care. In practice, legal counsel to physicians, hospitals, and other clients in health-related fields provide sound and largely self-taught advice to these special clients. Creative invention of new and mixed forms of enterprise for health-related activity²⁸ may not require formal training for health specialists, but there are emerging areas of enterprise law directly related to health fields that could be given explicit treatment in law school

²⁷ Editorial, 164 Sci. 249 (1969).

²⁸ An example is the New York City Health and Hospitals Corporation. See report by Dr. Howard A. Rusk, N.Y. Times, May 4, 1969, at 58.

courses pigeonholed under this title. Examples are the development of corporate and "group" practice, and the creation of new legal entities that perform essentially public health functions as private contractors, not as civil servants. The political issues that turn on public versus private control and management of such mixed forms, public and private financing, tax policies, and comparative cost/benefit measures of effectiveness in the health system are matters that call for more legal, economic, and medical professional research than has been given heretofore.

Antitrust; Unfair Trade Practices. The past application and potential expansion of laws prohibiting monopolies and restraints on trade, false advertising and other deceptive practices, as they relate to health products and services, pose interesting problems that should be explored in the law curriculum. Law student interest in the broad area of consumer protection is creating an increased demand for a consumer health focus in the examination, for example, of the operations of the Federal Trade Commission. Those familiar with food and drug law know that advertising, as distinguished from labeling, of drugs is within the jurisdiction of the FTC. They are also aware of the Commission's almost comical struggle to regulate effectively the advertising practices of a company dedicated to stamping out a non-disease, "tired blood." The current class of graduate students probably remembers Senator Kefauver's lengthy hearings in the early 1960's on the testing, advertising and pricing practices of pharmaceutical firms. Few in either the health or legal professions recall, however, that one of the country's greatest jurists was a leader in the battle to control pharmaceuticals as early as 1860. In his annual address to the Massachusetts Medical Society that year, Oliver Wendell Holmes said

The truth is that medicine, professedly founded on observation, is as sensitive to outside influences, political, religious, philosophical, imaginative, as is the barometer to the changes of atmospheric density. Theoretically, it ought to go on its own straight-forward inductive path, without regard to changes of government or to fluctuations of public opinion.²⁹

Nevertheless, "the community is overdosed" by physicians, and

Part of the blame must, I fear, rest with the profession for yielding to the tendency to self-delusion, which seems inseparable from the practice of the art of healing. ..[but] another portion of the blame rests with the public itself which insists on being poisoned. . . . The outside pressure, therefore, is immense upon the physician, tending to force him to active treatment of some kind. . . . I firmly believe that if the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind,—and all the worse for the fishes.³⁰

²⁹ As quoted by Franz J. Ingelfinger, Annual Discourse—Swinging Copy and Sober Science, 281 THE NEW ENGLAND J. OF MED. 526 (1969).

³⁰ Dr. Ingelfinger noted that within 24 hours after this speech by Holmes, the Fellows of the Society held an adjourned meeting and adopted by a vote of 9 to 7 the following resolution: "Re-

Almost fifty years passed before the Congress adopted a comprehensive law to regulate *materia medica*,³¹ and at the beginning of the 1970's much remains to be done to preserve competitive practices in the pharmaceutical industry while protecting consumers from overmedication.

Criminal Law and Procedure; Administration of Criminal Justice. These areas of the law are increasingly interwined with the findings and opinions of medical specialists. Studies of the physical and social variables that account for criminal behavior, sanity of defendants at the time of the alleged crime and at the time of trial, and factors that may affect the success or failure of incarceration-rehabilitation programs have been under way for a number of years. In each of these contexts, students of criminal law are exposed to the communications problems of doctors and lawyers in the legal forum and the difficulties entailed in translating medical knowledge into legal fact and expert opinion.

Criminal acts involving personal injury or death have also been a focal point for interprofessional emphasis upon "forensic medicine." The mutual concerns of doctors and lawyers for expertise in medical autopsy and other physical means of establishing the time and cause of death or injury were recently reinforced by widespread public controversy over the causes of death in the assassination of President Kennedy.

Narcotics addiction and drug abuse pose some of the most acute problems of the criminal law. The spread of a drug culture throughout all levels of society and the increased incidence of juvenile use have called into question the effectiveness of existing laws relating to prevention, punishment, and rehabilitation. Because so many lawyers in New York City were receiving middle-of-the-night calls for help in narcotics cases, the State Bar Association announced, in January 1970, a special session on the problems of narcotics defense.³² Shortly thereafter, the National District Attorneys Association, concerned with the influx of drugs into schools, began a program of drug institutes for school superintendents, high school principals, and college deans, as well as state and local law enforcement officers.³³

In an entirely different area, the criminal law is being shaped by expert medical opinion. The nation-wide assault on restrictive abortion laws has called forth obstetricians, gynecologists, geneticists,³⁴ and psychiatrists to help set guidelines for more liberal abortion statutes. The perfection of a safe and effective chemical abortifacient will doubtless de-

solved, that the Society disclaim all responsibility for the sentiments contained in the Annual Address." Id.

³¹ Federal Food and Drug Act of June 30, 1906, ch. 3915, 34 Stat. 768.

³² N.Y. Times, Jan. 28, 1970, at 29.

³³ TRIAL 7, (Dec./Jan. 1969/70).

³⁴ See, e.g., Peter T. Farrell, The XYY Syndrome in Criminal Law, 44 St. John's L. Rev. 217 (1969).

mand extensive cooperation between health and legal professionals in shaping legal policy with reference to manufacture, possession, and use.⁸⁶ These are but a few of the probable future reference points for medical-legal collaboration in criminal law.

Domestic Relations. During the past decade, the dramatic shift in focus of the traditional family law course evidenced a growing awareness that physical and mental health affect, and are affected by the family. Sterility, genetic defects, biological dysfunction, and sexual attitudes and practices give rise to problems between husband and wife. Some of these factors are also called into account in legal decisions concerning the "best interests of the child." Legal recognition of an appropriate role for the marriage counsellor and for the adoption investigator reflect significant shifts in the content and concern of domestic law. Re-evaluation of the human values at stake in the *de facto* family³⁶ and the progressive elimination of social and legal stigma of illegitimacy are examples of the ways in which public attitudes about psychic well-being are finding their way into the legal system.

The medical facts of aging, physical and mental illness, and death of parents are now perceived as relevant data in the formulation of legal policy. The formalities of antenuptial agreements, of marriage, and of dissolution of marriage that once formed the heartland of family law are being displaced by a concern for the family as an institution of well-being. Whatever is dysfunctional for that institution calls for remedies designed either to make it work effectively or to provide functional substitutes. These developments could not have come about without communication between the legal and health professions. To facilitate continuing collaboration along these lines, the American Bar Association Section on Family Law has formed some new committees. They include groups specialized to the legal problems of the aging, family law and psychiatry, and law and family planning.⁸⁷

In the larger context of national population policy, the family is a critical cypher. Implicit in the family-planning concept is the democratic notion that the decision to have or not have a child resides, irrevocably, in the family unit. Coercive social measures to restrict reproduction are generally assumed to be contrary to a universal human ethic.⁸⁸ Nevertheless, as the United States and other countries move toward a demographic policy supporting zero population growth, the web of legal regulations governing

³⁵ The most recent developments along this line involve prostaglandins (PG) now being tested in England, Sweden, and the United States. See N.Y. Times, Jan. 28, 1970, at 26.

³⁶ See Walter O. Weyrauch, *Informal Marriage and Common Law Marriage*, in SEXUAL BEHAVIOR AND THE LAW 297-340 (R. Slovenko, ed. 1965).

³⁷ See 15 Am. B. NEWS 6 (1970).

³⁸ See Bernard Berelson, Beyond Family Planning, THE POPULATION COUNCIL, STUDIES IN FAMILY PLANNING No. 38 (1969).

the family as a social unit will come under close scrutiny by lawyers and experts in the various health professions. As chemical agents for regulating fertility and sterility become perfected in the laboratories, doctors and their fellow scientists will become more involved in the shaping of public legal policies for their use.

Civil Obligations: Contract and Tort. The fact that much of the foregoing discussion relates to legal policy created by legislation should not overshadow the contribution of judge-made law in the fields of contract and tort. In both of these areas, certain doctrines have been employed to protect individual safety and health.

In contract law, the doctrines most commonly invoked are warranty and consent. Whether express or implied, or disclaimed, warranties constitute promises and in cases of breach resulting in physical harm, contract law has moved steadily toward greater protection for the injured party. Contractual consent, based on full disclosure, forms the basis for another type of individual protection. "Every human being," said Judge Benjamin N. Cardozo, "has a right to determine what shall be done with his own body. . . ."³⁹ and this principle serves as the doctrinal underpinning for protection against unwanted (even if beneficial) medical treatment. In practice, the principle is designed to guarantee an individual's right to decide his own destiny even at the risk that his decision is less intelligent than that of his medical advisor.

Closely related to the obligations arising out of contract are those involving harms resulting from negligence. The two areas of contract and tort law are so intertwined that many cases proceed on both contract and tort theories. The personal injury plaintiff often claims that the defendant breached a contractual promise which resulted in plaintiff's injury. In addition, he may claim that even if the court finds no contract and no broken promise, the defendant's negligent actions under the circumstances were such that he is obliged to compensate plaintiff for the loss. In the emerging areas of broad consumer protection and environmental control, the law of contracts and of torts will doubtless serve as bases for action against processors of foods containing unsafe additives, manufacturers and users of harmful biocides, and makers of pharmaceuticals alleged to have caused bodily harm. Just as the automobile gave rise to the personal in-

³⁹ See Schloendorff v. Society of N.Y. Hospital, 211 N.Y. 125, 105 N.E. 92 (1914). The general area of malpractice litigation was the subject in 1969 of the first Congressional investigation of the matter in United States history. It covered malpractice litigation, rising premiums for malpractice insurance coverage, and effects upon medical costs in this country. See MEDICAL MALPRACTICE: THE PATIENT VERSUS THE PHYSICIAN. A Study Submitted by the Subcommittee on Executive Reorganization, U.S. Senate. U.S. Government Printing Office, Washington, D.C., 1969. Dr. B. Martin Middleton, a general surgeon, recently called upon the lawyers for help. "The legal profession must share responsibility in the increasing costs of patient care. The abundance of suits has added to the anxiety of the patients, increased suspicion of the American system of delivery of medical care, and has increased the cost." AMA NEWS 1 (Feb. 3, 1969).

jury law practice, these new elements in the human environment are likely to produce client interests that can be served only by lawyers and health scientists working closely together. If for no other reason than its pragmatic relevance for future practice, law students are entitled to opportunities for studying the methods of scientific research and testing in areas so vitally affecting human life and health.

For quite different reasons, doctors, hospital administrators, public health officials and health insurers have vital interests at stake in the legal consequences of civil actions in contract or in tort as those actions affect the legal status of the medical patient.⁴⁰

Jurisprudence. Issues of life and death were the concern of jurisprudence long before World War II, but since that time, legal philosophers have exhibited even greater concern for the problems of capital punishment, abortion, genocide, medical experimentation, and biomedical engineering. Recognizing that existing law, even when supplemented by the Hippocratic Oath, Canons of Ethics, and the Nuremberg Principles, does not provide adequate guidelines for the resolution of many medical-ethical problems, legal philosophers have already laid the foundations for cooperation with the medical profession in jurisprudential terms. Students in both professions are profoundly concerned by the issues raised, and authentic communication between the professions is not likely to occur unless they can exchange philosophic views.

B. International Law

In January 1970, a panel of prominent citizens, headed by former U.S. Supreme Court Justice Arthur J. Goldberg, proposed a new program to improve foreign policy planning in this country. The complex and politically sensitive issues involved in the shaping of that policy are not within the exclusive competence of government and political science. Lawyers and doctors have special claims to competence in policy decisions that bear upon the health and welfare of the human species. Decisions relating to population increase, economic development, control of atomic, biological and chemical (ABC) warfare, allocations of limited food supplies

⁴⁰ An example of law school focus on these issues is a seminar offered at the Yale Law School described in its bulletin as follows: The Emerging Social-Legal Status of the Medical Patient. The seminar will explore a variety of issues, relating to the status of the medical patient, including: (1) the patient's right to and control over medical services as a consequence of medicaid, medicare, and other government programs; (2) the effect of the patient's status under the latter programs on the organization of medical service; (3) other issues regarding the distinction in style and quality of medical services among rich, middle class, and poor patients; (4) the patient's situation in the hospital with regard to privacy, confidentiality, medical experimentation, medical teaching, knowledge of his medical problems and treatment, relationship to the physician, emergency services, etc.; (5) the relationship between the hospital and the various communities it serves.

⁴¹ N.Y. Times, Feb. 1, 1970, at 3. See also, Richard A. Falk, Law, Lawyers, and the Conduct of American Foreign Relations, 78 YALE L. J. 919 (1969).

among famine-stricken populations, and international controls over international traffic in narcotics and dangerous drugs are but a few of the joint international interests of the legal and health professions.

The traditional domain of international law has been limited to the laws of war and transnational commercial arrangements. Since World War II emphasis has also been given to international governmental organizations and human rights. Even within this framework, however, there is room for extensive collaboration between lawyers and health professionals. The fundamental internationality of medicine stands in strong contrast to the parochial quality of law. Students in the health sciences move quite easily to clinics and public health centers in many parts of the world. Because lawyers rarely study more than one legal system and are much less mobile, intellectually and physically, in foreign jurisdictions, they are even more dependent upon the health professionals in shaping international health policies.

Public International Law deals with the practices and principles followed by nation-states in their relations with each other, the law of treaties, and of war. Traditional scholars in the field have paid scant attention to international cooperation in the field of health. Even in seminars dealing with international organizations, the World Health Organization, the United Nations International Children's Emergency Fund, and the Food and Agriculture Organization are given only passing mention. The principal thrust of arms control—nuclear, biological and chemical—is upon national security, not upon the claims of people everywhere for protection against health threats. There is ample room in public international law for developing a new health law based upon international responsibility for maintaining a habitable environment for man.⁴²

Such a shift in international perspectives has been predicted by Professor Richard A. Falk. Noting that there are four interconnected threats to planet Earth—wars of mass destruction, overpopulation, pollution, and the depletion of resources—Professor Falk attributes as their common source "the inadequacy of the sovereign states to manage the affairs of mankind in the 20th century."⁴³

John Maynard Keynes long ago spoke of the paradox of aggregation—that the definition of rational self-interest is different for the individual than for the community. If one's car is polluting the atmosphere, the addition to the general pollution is so infinitesimal that there is no rational incentive to forbear from driving, or to spend money on anti-pollution filters.

This same logic applies to corporate behavior in the pursuit of profits and to nations seeking wealth, power and prestige.

⁴³ See, e.g., the emphasis given to this matter in R. A. FALK & C. E. BLACK, THE FUTURE OF THE INTERNATIONAL LEGAL ORDER, iv (forthcoming 1971).

⁴³ N.Y. Times, April 7, 1969, at 10C. See also, Garrett Hardin, The Tragedy of the Commons, 162 Sci. 1243 (1968).

Appeals to conscience have very little prospect of success. The only hopeful prospect is some kind of central framework of control to define community interests and to impose them on a global basis. This kind of solution is essentially political and moral rather than technical.

Similar views were expressed by conservationist Russell Train⁴⁴ when he uttered the following warnings to planners—legal and health—concerning the ecological side effects of their interventions:

Developing countries are defenseless before the self-assured wisdom of Western planners. We have a very heavy moral obligation to assess the full range of consequences of those international development programs, both bilateral and multilateral, which we have undertaken so confidently.

The adverse environmental consequences of much well-accepted techological progress are perhaps most readily and dramatically seen in international development programs where alien technology and alien goals interact with a traditional culture and values.⁴⁵

Because lawyers carry the burden of informing policy makers at the international as well as at the national level of all of the relevant facts that bear upon policy, they have a special obligation to explore such effects and to insure that the best wisdom of the health sciences is brought to bear on policy formation. A reciprocal responsibility resides in the scientific community to assure that channels of communication are open for the transmission of their knowledge to the legal processes at all levels.

As for individual claims to life and basic necessities for survival, the Genocide and Human Rights Conventions, together with other international agreements, were steps in the direction of depoliticizing matters affecting human health and welfare. But the Biafran tragedy in the late 1960's pointed to the need for additional international measures to help starving populations in areas torn by civil strife without violating the rules of war.

Despite the so-called "green revolution," famine is an abiding threat to millions of people in many countries of the world. Famine prevention, deterrence, and relief are matters that call for immediate international planning and cooperation. These examples demonstrate a few ways in which law and medicine intersect at the international level in critical and important matters.

International Business Transactions. Paralleling domestic commercial and corporate law, this area of international law is fairly well-developed. It deals with legal problems which arise in transactions among individuals, business enterprises, governments or governmental instrumentalities of two or more nations. Among the subjects typically covered are international

⁴⁴ Appointed Jan. 29, 1970, as chairman of the three-man federal Council on Environmental Quality. N.Y. Times, Jan. 30, 1970, at 1.

⁴⁵ As quoted in 11 ENVIRONMENT 28 (1969).

investment and trade, common market organizations, and national tax and regulatory laws as they relate to international transactions. Little or no attention has been given to health, except by way of interests in economic development.

Development is generally assumed to be a factor in raising levels of vitality in the underdeveloped countries, but since health services are consumer items they do not attract investment capital. Most of the immediate health needs in the poorer countries of the world require financial assistance that carries no promise of long-term investment returns. Thus policy-makers in both sending and receiving countries are compelled to decide whether to allocate financial resources to short-term relief or to long-term investment in underdeveloped countries where health problems are acute. Experts in the legal aspects of public and private international finance can contribute much toward the implementation of comprehensive community health programs, but they need the collaborative assistance of their counterparts in international public health.

In his 1966 Annual Report, Dr. Abraham Horwitz, Director of the Pan American Sanitary Bureau, challenged the universities to enter the pragmatic dialogue on the interdependence of health and progress. We believe," he said, "that the contribution of health to development and of development to health can be measured," but the universities must assist in creating the theory and techniques for such measurement. In the same report, Dr. Horwitz asked the universities to cooperate with governments "in the establishment or revision of population policies," and to help formulate solutions to the problems created by the migration of health personnel from Latin America. It is difficult, indeed, to foresee rational solutions to these problems without the concerted action of the university-based law and medical schools.

III.

What has been said above to confirm the immediate relevance of the health sciences to many areas of the law has an obvious bearing upon curriculum content in the professional schools. Of even greater moment, however, are the facts that medical and law colleges are designed to train professionals, and that the passive acquisition of ideas from books and lectures—however stimulating—does not do the job. If the academic enterprise is to function well, it must develop in the student a sense of his professional role in the larger social community and his professional responsibility to that community.

The study of professions has generally been the province of sociology. Whether it is an appropriate topic for students in the professional schools

⁴⁶ Pan American Sanitary Bureau, Official Document No. 78 (August 1967).

⁴⁷ Id. at xii.

still gives rise to serious academic debate. A few law schools offer courses or seminars on the legal profession.⁴⁸ They deal mainly with appraisals of recruitment, training, licensure, policing performance, and recommendations for innovation in each of these areas. Since lawyers, and the public at large, are concerned with these aspects of both the legal and medical professions, there exists ample justification for cooperation between medicine and law on the subject of the professions themselves.

Dr. Wayne G. Menke, in a discussion of professional values in medical practice, has described professional "socialization" in these terms:

In becoming a professional, a student "internalizes and makes his own the attitudes and values which will largely determine his future professional role." Professionalization is thus "a growth concept which pictures the development in human individuals of a professional self, an identity in the role of doctor." There is in this sense a professional culture, or more accurately a professional subculture, that in large part determines how the young professional will think and how he will act. The values that it inculcates will create attitudes, or attitudinal predispositions, in the light of which experience will be evaluated and by which behavior will be judged.⁴⁹

Whether these values and attitudinal predispositions are acceptable to the general community is certainly an issue to be explored and exposed early in the young professional's training. Every effort, therefore, should be made for medical-legal exchange with the candor and openness that is itself a mark of professionalism. A number of problems other than pure economics are raised by medical manpower shortages: the suggestions that both professions use para-professional personnel, the demands for equal access of the poor and the rich to quality services, and the rising number of challenges to the traditional professional-client privilege. These issues should form the basis for fruitful interchange between the health professions and law.

The formation of professional values alluded to by Dr. Menke is affected by association with fellow professionals, but other elements of the environment are at work as well. In a recent address to law students, United States District Judge Jack B. Weinstein suggested that law students from privileged backgrounds be required to live and work in slum areas for weeks or months to understand the people with whom they may eventually have to deal.⁵⁰ He viewed as a professional handicap the limited

⁴⁸ The American Bar Association, noting that physicians, dentists, and other professions have made use of nonprofessional assistants, has a Special Committee on Lay Assistants for Lawyers. Its recommendations on the education, development and use of paralegal personnel will be presented to the Association in 1971. 15 Am. B. NEWS 11 (No. 1, 1970). See also, Lee Turner, Paralegal Personnel in Law Offices, TRIAL 33 (Dec./Jan. 1969-70).

⁴⁹ Wayne G. Menke, *Professional Values in Medical Practice*, 280 NEW ENG. J. OF MED. 930, 931 (April 25, 1969).

⁵⁰ N. Y. Times, Sept. 14, 1969, at 64, reporting Judge Weinstein's address to the Board of Editors, The Columbia Journal of Law and Society, Columbia University, New York City.

experience of many law students who have grown up in suburban areas, moved on to good colleges and law schools, and then to clerkships and legal offices. Judge Weinstein observed that there is

a certain humility that comes from pushing a garment cart through the middle of downtown Manhattan on a hot summer day or of working in a hospital or in a taxicab and of living in a slum area. Dealing on an equal level with miserable people, with nice people, and with mixed people in unfamiliar areas of life may help suggest why some pleasant-sounding theory will not work.

Columbia University's natural setting makes it rather simple to expose law students to metropolitan slum experiences. Other schools may find it more difficult to provide such student exposures as an integral part of professional training. One approach, involving medical-legal cooperation, is suggested by reported medical student activities among the poor and some new trends in medical curriculum reform.

During the last few years a significant minority of medical students and interns have organized groups such as the Medical Committee for Human Rights, the Health Policy Advisory Center, and the Medical Resistance Union.⁵¹ These groups are bringing their medical skills into deprived neighborhoods, and are "picketing, protesting, and petitioning in an effort to make their profession socially conscious."

Dr. Charles E. Lewis's study of "the typical student activist" at medical school shows that the activists "leaned heavily toward academic medicine," that the majority of those who anticipate medical practice plan to do so in groups, and that 80% intend to pursue their interest in "community health" as practitioners. ⁵² In a presidential report to the American Medical Association, Dr. Gerald D. Dorman acknowledged this shift in medical students' interests. "We need to face up realistically to the fact that although we don't like the criticism of us by some of the younger members and would-be members of our profession. . . these young professionals are nonetheless as much, or more, patient-oriented than some of us." ⁵³

The decade of the 1970's was ushered in by resident physicians and lawyers working together in the courts of California and the District of Columbia to secure as a "legal right" equal access of the poor to quality medical care.⁵⁴

All of these developments point to ways in which technical writing programs, clinics, and internships, already recognized as serving a legitimate educational function in the professional schools, may be expanded to in-

⁵¹ See Internes Joining Social Activists, N. Y. Times, September 15, 1969, at 41M.

⁵² See Medical World News, Jan. 23, 1970, at 35.

⁵³ Gerald D. Dorman, *The Significant Seventies*, President's Report to the House, 23d Clinical Convention, American Medical Association, Denver, Colo., Nov. 30, 1969. (mimeo)

⁵⁴ See Medical World News, Jan. 30, 1970, at 17.

clude interprofessional experiences for students in law and the several health sciences.

The Professional Journal. Student participation in editing and writing for legal periodicals is a valuable part of American legal education. Whether by way of the set format of the general law review or of journals specialized to a particular field of law, educational purposes are served by this type of student activity. From their earliest beginnings, law journals have included scholarly articles on medical-legal problems. Leading articles by scholars and practitioners in both fields, comments and case notes by student writers, all evidence the interest of the legal profession in matters affecting health and well-being. Law journals do not merely chronicle past involvement, they also predict future developments and lay the foundation for decisions yet to be made. They are, therefore, especially well-qualified to serve the purpose of expanding the bases of collaboration with professionals in other fields. Given appropriate institutional support, students from the legal and allied medical fields should be capable of issuing a number of new journals specialized to topics of interprofessional concern.

Clinical Experience. It is rumored in legal circles that the concept of the "legal clinic" was stolen from the medical schools. The authenticity of the allegation is immaterial. Student service as legal researchers or as counsel for parties in civil and criminal litigation is also recognized as an integral part of law school training, whether or not such service is an accredited and graded part of the regular program. A similar, but not identical experience, involving student delivery of health care to patients, is an essential part of medical school education.

For both professions, those availing themselves of clinical assistance have traditionally been "the poor." In recent years, legislative programs reflecting public concern for improving the quality of life for persons who do not have at least a middle-class income has brought about fundamental changes in the attitudes and expectations of students of both medicine and law. The very fact that law students have been allowed to "practice" their skills on clients unable to pay a lawyer's fee may have set the stage for intimate identification of law students with society's underdogs. Parallel processes are at work in the medical fields. Medical students, aided by research support under a variety of federal programs, are beginning to take psychology, epidemiology, and human ecology seriously as they volunteer to study the environment of the infirm. Interestingly enough, when medical students spend some time with their real-life patients, they are surprised to find how often they need legal advice. Health problems are

⁵⁵ See Christopher M. Byron, *Medicine as Social Action*, YALE ALUMNI MAGAZINE 51 (October 1968.)

intimately connected with housing, sanitation, opportunities for education and employment, stress in domestic relations, and psychosomatic effects of living in social groups labeled "marginal." Solutions for such problems are not suggested by the typical medical school curriculum; neither are they touched upon in the usual course of law school study.

One of the most promising avenues toward interprofessional understanding appears to lie in the futher development of student collaboration "in the field." It might take the form of medical-legal teams in legal aid or legal defender programs; it could demand the addition of a "law member" to the health team that monitors the well-being of a family during a medical student's training period.⁵⁶ Given the current mood of many students in both disciplines, it is worth seeking their advice in designing new clinical programs as a part of the broader task of defining and implementing the intersections between medicine and law.

Internships. When legal education became an academic matter, the older practice of supervised internships for neophyte lawyers was almost completely abandoned. Several states still permit persons who do not qualify for LL.B. or J.D. degrees to take bar examinations. Generally, however, non-academic avenues to professional licensure in the bar are closed. This shift to professionalism carried in its wake a deprecatory attitude toward correspondence schools, night law schools, part-time study, and working students. The study of law is now regarded as a full-time endeavor; law students must be exposed to history and philosophy, to the law as it ought to be, not merely to a "plumber's knowledge" of law as it is.

As a result of this type of thinking, many programs designed to broaden the pre-professional experience of law students have not been endorsed by law school faculties. There is some merit in the adamant position taken by professional educators against unsupervised, random "raw" experience encountered by the working student. But systematic appraisal of such exposures and opportunities to compare diverse experiences in the non-professional practice of law may very well serve some important educational objectives. Likewise, collaborative field experiences of medical students and students of law could be mobilized as powerful curricular tools. The probabilities are so high that student medical-legal teams will perceive new

Schmeck, Jr., Medical School Survey Urges Drastic Change in Study Goals, N.Y. Times, Nov. 5, 1968, at 27.

⁵⁶ Almost all medical schools give their students some contact with patients before the final two years of training. Most introduce the student to the patient in the first year. At Case-Western Reserve University,

each medical student is assigned a pregnant woman who is under the care of the staff doctor. Thereafter, the student becomes her main contact and spokesman in the medical system.... At the new Pennsylvania State University College of Medicine...contact between student and patient comes within the first week. The core of the system is a panel of 1,500 local families cared for by four medical school faculty members in a partnership practice.... For the student, the project permits the kind of continuity and realistic family contact that he ought to experience in general medical practice.

relationships between conditions of health and legal disorder that neither profession can afford the consequences that failure to collaborate entails.

IV

The principal role of the professional school is both to recruit and train students, and to develop and transmit professional knowledge. These suggestions for broader professional interaction have focused upon what can be done by the schools during that training period. The groundwork for intensive interprofessional activity has already been established at a number of universities, but none of them has undertaken the task of mapping out in full detail a comprehensive program that includes all of the suggestions made here. Action may come slowly, but pervasively, as individual scholars and students begin to develop their own particular interests, to prepare appropriate materials and programs, and to disseminate their developed skills among others. It is more likely, however, that the rapidly changing social context to which the professions are responding with an increased sense of urgency may produce dramatic changes in the very near future.

Only yesterday, it seems, Sir Charles Snow described the widening gulf between the "two cultures." By doing so in eloquent terms, he unwittingly deepened the breach. His description confirmed a pessimistic view that reintegration of the sciences and humanities was an impossible task. In the 1960's, however, some new voices were heard. From both cultures emerged younger men and women committed to the goal of using science for the positive improvement of the quality of life. Goaded by a sense of the injustice and irrationality of the old order, scientists joined the poets in mobilizing their skills in the interests of humanistic man. Simultaneously, lawyers, previously aligned with one or the other, or neither of these worlds, began to perceive their roles as "mediators"—between the old and the new political orders, between technology and other cultural values, between rich and poor, black and white—all toward the end of a common humanity for whom survival in dignity is a primary goal.

This, then, is the context in which law and medicine enter into the 1970's, as co-workers in the implementation of a humanized technological world. Their common duty is the promotion of the highest attainable level of life and well-being for the species. For the realization of this goal, the two professions are indispensable partners in the service of mankind.

⁵⁷ C. P. Snow, The Two Cultures and the Scientific Revolution (1959).