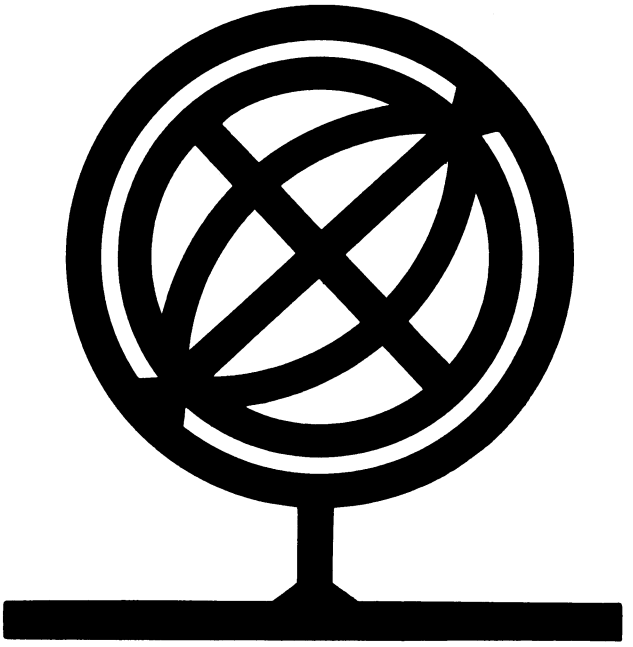

APHA's 99th

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Development of HMO's—Concepts and Benefits

The goal of the Administration is to try to develop health maintenance organizations in areas where 90 percent of the population lives, Dr. Merlin K. DuVal, Assistant Secretary for Health and Scientific Affairs of the Department of Health, Education, and Welfare, pointed out in a discussion of HMO definitions, concepts, and benefits. The enrolled population, one of the distinguishing characteristics of an HMO, is different from a target population in that individuals and families make a conscious choice about health care. This group enters into agreement with the HMO to pay a pre-set, fixed sum in return for an agreed upon set of health services which are the responsibility of the HMO. DuVal noted that the 90 percent figure did not mean the HMO enrolled population, but rather those to whom HMO services would be an option.

Health maintenance organizations as they develop over the next decade may be classified along two dimensions: degree of organization and scope of commitment to the enrolled population. The most highly organized and committed HMO model would use its own full-time staff and facilities, serving the enrolled population on a full-time basis. Lesser degrees of organization and structure are represented by HMO's which utilize full- or part-time physician groups, but have arrangements for purchase of inpatient care from community facilities.

The least degree of organization would be HMO's which use individual physicians and community health facilities. The HMO framework would be effected through contractual and professional agreements. Fee-for-service patients might be seen along with the enrolled population.

Differing approaches to organization would be built on the basic concepts of the health maintenance organization. These are, in addition to the identified, enrolled population, first that it is an organized health care delivery system capable of arranging for the health manpower and facilities a population might require. Second, that it involves a financial plan which underwrites an agreed upon set of services for a prenegotiated and prepaid individual or family amount, and finally, it is a managing organization which assures financial and professional accountability.

Negative and Positive Aspects

The Department of Health, Education, and Welfare has moved to encourage HMO development under existing statutory authority, DuVal said. Difficulties in developing HMO's fall into six areas. The first of these is financial. The average cost of planning is $250,000; startup may range from $1 to $2½ million, and, exclusive of hospital bed construction, capital needs for facilities may go as high as $2.5 million.

Other problems are lack of management and technical expertise in HMO development and operations, lack of dual-choice options in both Federal and private health insurance plans, physicians and consumers who are relatively unaware of the advantages and disadvantages of HMO care, and the legal barriers which inhibit or restrict the development of HMO's. Finally, new HMO's wishing to draw on Federal assistance for manpower, planning, or research, or to serve Federal beneficiaries, must relate to a variety of agencies and programs.

The Administration's health strategy has been designed to deal with these problems.

The Health Maintenance Organization Assistance Act would authorize grants and loans for planning, initial operations, and construction. Highest priority would be assigned to those HMO's intending to move into medically underserved areas.

Enactment of the HMO Assistance Act will be followed by a request for $38 million in supplemental funds of which $16 million will be for grants and contracts to launch HMO's in medically underserved areas, and $4 million will be earmarked for loans to public institutions. Also, authority will be sought to guarantee loans up to $300 million. With other program funds, 60 new HMO's can be in planning stages and perhaps an additional 50 HMO's beginning operation in fiscal year 1972.

Legislation has been proposed which would involve Federal supremacy to override restrictive local laws inhibiting prepaid group practice.

The multiple problems caused by dealing with different programs are being handled administratively. The joint funding authority of the HMO act will ease this situation.

DuVal enumerated the benefits of the HMO concept which include elimination of risk on the part of patients and incentives for the organization to maintain health and to use less costly facilities and manpower. Freedom of choice places emphasis on HMO responsiveness to individual consumer needs of convenience, comfort, and effective health care. Finally, HMO's offer a vehicle for competition; they will have strong incentives to offer additional health services and even complementary social services such as day care, transportation, outreach, and drug abuse treatment.

The HMO concept embodies many of the ideas currently being discussed legislatively. DuVal said that its destiny is to bring organization and accountability into the health care picture. Its relevance to public health professionals lies in the effective solu-

tions it offers to problems in dealing realistically with the relationship between the delivery and financing of health services.

HMO's—A Strategy For the 1970's

The health maintenance organization concept, announced as official Federal policy toward a more productive health care delivery system, has provided an impetus for a new look at arrangements for health care delivery and financing. In response to Dr. Merlin K. DuVal's address, Harry Becker, professor of community health at Albert Einstein College of Medicine, said: "What will emerge is more awareness of the precise obstacles that must be removed before moving toward the goal of a more effective and productive national health service."

The HMO concept is a first step, although not a new one, Becker pointed out. Based on the concept of group practice outlined by the 1932 Committee on the Costs of Health Care, the current ideas will be expanded before the ideas of per capita payment, team medical practice, and decentralized, ambulatory health units become integral to health care delivery and financing. Becker predicted that consumer relevance and involvement in decision making will become a political reality before any of the initial HMO projects get underway.

The essentials for today's health care service cannot be worked out by individual physicians acting alone, Becker said. Scientific medicine requires services ranging from prevention, detection, and diagnosis to treatment, rehabilitation, and institutional care. Institutional care includes the community hospital, the regional hospital for more complicated diagnosis and treatment, and special facilities for long-term illness. Money merely to purchase care is not alone sufficient to assemble the complicated matrix that makes up this kind of system. In Becker's view, it is highly unlikely that the initial HMO concept of a freestanding and a free-enterprise private entrepreneur for physician-profit operation administered by providers can fulfill the public policy goals for health for the 1970's.

Obstacles

The real significance of the HMO proposal, Becker said, is that since its appearance as public policy, the nation's health establishments have begun to struggle with some of the basic problems and issues in health care reform. One of these is the fallacy of financing hospital care through one mechanism and under one set of policy considerations—and at the same time financing professional services separately. This major obstacle, he went on, has made it impossible, under voluntary health insurance and Medicare and Medicaid, to maximize the use of hospital-based medical technology on an ambulatory basis.

New community structures will grow as the issues of full public accountability and patient relevance emerge in the struggle to make the HMO concept a reality. As now conceived, the HMO cannot act on behalf of the total community, Becker stated. The HMO cannot be an agency for outreach nor can it coordinate or develop a total communitywide system for care. It cannot handle major community problems—be they drug abuse, alcoholism, or mental disorders—rooted in community factors. Community disease prevention measures and new approaches to detection of genetic disorders are outside the scope of an HMO, in Becker's words. New types of manpower are not likely to be generated by the HMO, he feels.

The paradox of health care in the 1970's, said Becker, is that the HMO idea has set America toward the goal of an all-inclusive public and national health service. Before this becomes a reality, he went on, today's nonsensical, costly, and regressive mixture of manipulative financing arrangements will have to be replaced.

The interest of the health establishments in the HMO will result in accelerated challenge for a more productive health care system, for public accountability, and for implementation of public involvement in planning and decision making. "The HMO frustrations," Becker concluded, "will demonstrate the compelling necessity for both a national health service and a national system for financing health care."

Center's Short-Term Training Ups Number of Statisticians

The demand for health statistics personnel has been intensifying for some time. Among the reasons cited by Dr. Anders S. Lunde, director of the Office of State Services, National Center for Health Statistics, is the introduction of many new activities like family planning and air pollution prevention, which have presented fresh subjects for statistical analysis. Public Law 91–515, in creating a Federal-State-Local Cooperative Health Statistics System, has also opened new horizons for education and training in expanding health statistics.

Although schools of public health are presumed to be a principal source of public health manpower, including statisticians, Lunde pointed out that only 7 percent of the 1960–69 graduates of departments of biostatistics in such schools entered State and local health departments. Salaries are not competitive in these departments, he explained. There is also an implication that the schools of public health

are graduating statisticians who are "overtrained"—educated beyond the requirements of health department tasks.

To fill the need of the Center and health departments for statistical personnel, the Center established the Junior Professional Training Program in 1963 and the Applied Statistics Training Institute (ASTI) in 1967. The program to train junior professionals provides 1 year of specialized training for college graduates from several fields. It has provided the Center with almost all of its beginning statisticians.

Endorsed by State health directors, the Applied Statistics Training Institute is designed to meet the expressed needs of State and local departments of public health. Lunde quoted Deane L. Huxtable, State registrar and director of vital records and health statistics of Virginia, who called ASTI "probably the biggest single factor that has been of aid to the States in our area of responsibility."

ASTI's task, Lunde explained, is to provide short-term practical courses for State and local health statisticians in subjects directly related to their work in health departments. Classes are limited to 1 to 2 weeks, since local offices frequently cannot release employees for longer periods.

In 3 years of regular operation, 652 students in 46 courses have been trained at the institute. Additionally, 125 persons have attended cause-of-death coding courses related to revision of the International Classification of Diseases. Eighty percent of the ASTI students have come from State and local health departments and the rest, from agencies of the Federal Government and nongovernmental agencies. Almost 80 percent had a bachelor's degree or higher; more than 37 percent had a master's or doctor's degree. Most students had some statistical education.

The National Center for Health Statistics invited representatives of departments of biostatistics of the 17 schools of public health and representatives of State health departments, the American Association for Vital Records and Public Health Statistics, and the American Public Health Association to a meeting at Research Triangle Park, N.C., in March 1971. The participants, after agreeing upon definitions of "training" and "education," went on to conclude, said Lunde, that just as departments of biostatistics play a significant role in education, ASTI plays a significant role in training. ASTI was expected to continue its emphasis on training. At the same time, it was suggested that the schools of public health might seek again to establish courses for undergraduates, provide master's programs with more emphasis on applied statistics, become more involved in public health problems, and incorporate fieldwork in State health departments into their programs.

The National Center for Health Statistics, Lunde reported, has also encouraged the States to establish educational and training programs in health statistics. At least one State health department has offered ASTI-type courses; another has inaugurated a monthly technical seminar for statistical personnel.

Evaluation of NIMH-Funded Drug Abuse Programs

All treatment programs for drug abusers which are funded by the National Institute of Mental Health contribute data to the Institute's information system. The data are evaluated to determine the general characteristics of the populations being treated, the types of treatment given, and the efficacy of the treatments.

Dr. Philip H. Person and associates from the Institute's Division of Narcotic Addiction and Drug Abuse presented some preliminary results from evaluation of the data, obtained during the 2 years since the system was started, that describes the Civil Commitment Program, Titles I and III of the Narcotic Addict Rehabilitation Act of 1966.

During fiscal year 1970, 1,190 patients spent a total of 202,620 days in the aftercare phase of the program. Seventy-one percent of the men and 41 percent of the women held either full- or part-time jobs at some point during this year of aftercare treatment. Men were arrested more often and spent more time in jail than women, and 70 percent of the men spent no time in jail.

Six percent of the patients in aftercare were completely drug-free and another 7 percent used alcohol only, the authors reported. However, on the basis of relative freedom from drugs, as opposed to total abstinence, 80 percent of the days that patients were in aftercare they reportedly used no drugs. The most widely used drugs were heroin and illegally obtained methadone. Alcohol was also used extensively.

Methadone patients worked more days but earned less per day than non-methadone patients. Further, Person and associates said, patients on methadone maintenance were arrested as frequently and spent about the same amount of time in jail as did non-methadone patients. They also used as many illegally obtained drugs as did the non-methadone patients. For all patients, drug use decreased the longer they were in aftercare.

Although persons under age 21 used less drugs than older persons, they were the largest users of marijuana. They were employed less, earned less

money, and thus had more leisure time than older persons.

Person and associates concluded, according to the data from the information system, that it costs the public less to treat the addict than to have the person incarcerated or on the street using drugs. It costs approximately $21,000 to treat a patient for 3½ years as opposed to $43,000—which includes a percentage of drug costs paid by the public in lost property, costs to administer justice, welfare payments, and emergency treatment and medical care—for 3½ years for the untreated addict.

State Hill-Burton Agencies Changing Their Functions

Functions of State Hill-Burton agencies are changing as a result of current trends in health facility franchising, capital financing, and health planning, according to Dr. Harald M. Graning, director, Health Care Facilities Service, Health Services and Mental Health Administration.

He observed that franchising is concerned primarily with the number of hospital beds in an area. Improving delivery of health care by emphasizing ambulatory care is based on the premises that (*a*) care can be tailored to fit patients' needs if varied services and facilities are available, and (*b*) the costs can be held down if the care does not exceed the patients' needs. Eventually, Graning said, franchising must be concerned with quality of services, better balance among health services and facilities, distribution of beds and services, and cost of care.

The Hill-Burton program's preparation for these eventual concerns includes new emphases on data and services. Among the States having franchising arrangements are Minnesota, Washington, Oregon, California, Arizona, Nevada, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Maryland, North Dakota, and South Carolina.

State Functions Under the 1970 Law

The principal sources of capital financing remain philanthropy, Government funding, and internal sources including borrowing, Graning recalled. According to Foster and McNeil in the July 1, 1971, issue of Hospitals, 20 percent of all hospital construction is derived from philanthropy, 30 percent from Government funds, and 50 percent from internal sources. The direct loan and loan guarantee programs authorized in the 1970 Hill-Burton legislation and administered by State agencies are also means for capital financing.

As the pioneer in statewide planning, Graning reminded the audience, Hill-Burton fostered areawide and comprehensive health planning. Now the area planning agency, or in its absence the State comprehensive planning agency, is routinely invited to submit comments on Hill-Burton projects before their approval.

Relatively new functions of State agencies also include assignment of priorities. Facilities which may now receive priority, he recounted, provide (*a*) comprehensive care, (*b*) training in health or allied health professions, (*c*) treatment of alcoholism, and (*d*) outpatient facilities, especially those serving poor people.

Inclusion of poor areas is significant because States can increase the Federal share of project costs to 90 percent for projects that serve poor persons, Graning said. The States may also increase the Federal share to more than 66⅔ percent (but not more than 90 percent) for projects that may potentially reduce costs of care through shared services among facilities, interfacility cooperation, or construction or modernization of freestanding outpatient facilities.

Although freestanding outpatient facilities are eligible for Hill-Burton aid, Graning pointed out that special consideration is given to areas with a shortage of physicians and dentists. Hill-Burton funds may be used to help build neighborhood health centers, but such centers must have the backup hospital services for patients needing hospital care.

New State Functions Under the 1970 Law

The 1970 legislation, Graning continued, established new programs of direct loans for publicly owned facilities and loan guarantees with interest subsidies for private nonprofit facilities. Loans totaling $500 million can be guaranteed annually, or a total of $1.5 billion over 3 years. Amounts guaranteed are allotted to the States on the basis of per capita income, population, and need for new or modernized facilities.

This program guarantees the loan and provides subsidies paid by the Federal Government at a rate sufficient to reduce by 3 percent the net effective interest rate paid by private nonprofit facilities. The loans are made by private lenders.

Graning explained that the Federal Government also makes direct loans to publicly owned facilities. The interest rate is comparable to the rate paid by a nonprofit sponsor assisted by the program. The Department of Health, Education, and Welfare sells the loan to a private investor or the Federal National Mortgage Association, guarantees the loan, and pays a 3 percent interest subsidy to the purchaser. A revolving fund of $30 million is author-

ized to provide capital for this program. For fiscal year 1972 the Department has an appropriation of $197.2 million for grants.

Health Maintenance Organizations

Health maintenance organizations, Graning said, "represent a key point in the Administration's health strategy." Since nonprofit facilities housing HMO's would be eligible for Hill-Burton support under certain conditions, Graning said, ways to implement this phase of the proposed program are being explored. Any requirements developed must be predicated on the State agencies' problems and possibilities.

Methadone Programs of No Value For Soldiers on Active Duty

Methadone as a substitute for heroin is impracticable for soldiers on active duty, according to Col. Stewart L. Baker, Jr., Office of the Surgeon General, Department of the Army. Before 1970 marijuana was the major nonalcoholic drug abused in the Army. In the spring of that year 94–96 percent pure heroin in 125–150 milligram vials costing $2 to $4 became easily available in Vietnam.

The Problem

Despite increasingly efficient education against drug abuse, drug traffic interdiction, and apprehension of users and distributors, heroin has remained plentiful in Vietnam at a price of $2.50 to $7.50 for 100 to 200 milligrams. Such heroin can be smoked in a regular cigarette or sniffed like snuff. These methods of ingestion are preferred because they induce the desired "high" without risk of exposure or infection from using a needle. Experience indicates little probability of cutting off the drug supply.

The drug user, as profiled by Baker, has had earlier experiences with illegal drugs, characteristically associates drug use with pleasure in the same manner that alcohol is accepted socially, and has a low opinion of his ability to handle stress. The user's low self-esteem is not offset by contributing to an unpopular war effort.

Observations on Methadone

The Army is studying civilian methadone maintenance programs, Baker said, for possible applications to its rehabilitation program. Geographic mobility is a built-in characteristic of military service. Stocking supplies of methadone throughout the world would necessitate increased security in procedures for its control because methadone is a line item in illegal drug traffic.

He observed that methadone rehabilitees require special counseling skills and that methadone maintenance might be practicable for military rehabilitation in a stabilized community.

Methadone maintenance, Baker said, would impose restrictions on the patients' availability for assignments that could impair their effectiveness in the military mission. Furthermore, the heroin abuser is so often a polydrug user that methadone substitution may be too simplistic.

Baker said that methadone maintenance may not be warranted because of the general lightness of the symptoms of withdrawal from heroin observed in the outprocessing quarantine centers in Vietnam. The Army, he continued, is beginning a study comparing differences in physiological impacts between persons who smoke or sniff heroin and those who mainline it.

Another doubt about the practicability of methadone for inservice programs reflects the heroin-dependent soldier's youth in comparison with the average civilian in a methadone maintenance program. The majority of soldiers who abuse heroin, he remarked, have not failed in any other established rehabilitation program nor have they been heroin dependent for several years.

The Army, Baker concluded, is concentrating on more effective preventive education, earlier detection of men with drug-determined maladjustment, and more effective rehabilitation while on active duty.

Asymptomatic Male Carriers Found Among Gonorrhea Contacts

The usefulness of "selective epidemiology" in gonorrhea control was demonstrated in a study reported by A. F. Marino, epidemiologist of the Norfolk (Va.) City Health Department, and co-workers.

Public health authorities have tended to discount the value of epidemiology in gonorrhea for several reasons (control is impossible without a blood test or an immunizing agent; treatment is so simple that epidemiologic efforts are not justified; money and staff are lacking to conduct epidemiologic efforts for both syphilis and gonorrhea). But the selective epidemiology practiced in this study brought to treatment 41.4 percent of the gonorrhea patients treated at the Norfolk Venereal Disease Clinic in 1970, the authors declared.

The technique at the clinic is to spend 5 to 8 minutes interviewing both male and female patients

to encourage them to bring or send contacts in for examination and for treatment if needed. If the persons named do not come, they are contacted by telephone or mail and, if necessary, a single field visit is attempted.

The consequences of interviews with 1,555 male and 799 female patients follow:

Group	*Number*
MALE PATIENTS	
Interviewed	1,555
Contacts named	2,332
Contacts brought to examination or treatment	1,865
Contacts infected (laboratory evidence)	1,045
Contacts received epidemiologic treatment	820
FEMALE PATIENTS	
Interviewed	799
Contacts named	945
Located and status ascertained	833
Treated before being named as a contact	266
Not infected	287
Brought to treatment	280
With symptoms	198
Infected, asymptomatic	82

Marino and co-workers remarked that female gonorrhea patients are seldom interviewed for their contacts since most physicians believe that infected males will seek treatment because of their discomfort. The authors reported, however, that 160 male contacts of the female patients who were symptomatic when examined had been without symptoms for periods of 7 to 30 days following exposure, and 113 of these contacts had had symptoms for 7 to 30 days. It is most important to note, they said, that most of these men had continued their sexual activity even while symptomatic.

Eighty-two male contacts of female patients were infected but without symptoms. They were examined up to 30 days following exposure and can be regarded as having had prolonged incubation periods or as asymptomatically infected carriers. All continued to be asymptomatic from the date of examination to the date of treatment. It would appear that the upper limits of the incubation period need to be revised, the authors opined.

Pediatric Clinic Services Enhanced by Triage System

Expanded services and more appropriate routing of patients have been achieved in a small pediatric clinic on the outskirts of Lima, Peru, through a two-tier triage system using a health aide and a nurse pediatric practitioner, according to Dr. David M. Paige, Johns Hopkins University School of Hygiene and Public Health, and co-authors.

Initial triage is carried out by a health aide, who determines body temperature, heart rate, respiratory rate, and height and weight to establish primary routing of the patient. If any measurement is abnormal, the patient is directed to the physician. If the measurements are normal, the aide refers the patient to the nurse pediatric practitioner who takes a history and examines the patient.

The nurse pediatric practitioner records her observations on an itemized checklist of physical findings, each of which carries a weighted score. If a score is 3 or more, the patient must be referred to the physician; if it is less than 3, the nurse gives primary care, preventive services (most often primary immunizations), and followup services. Examples of patients referred to the physician are those with rigid neck, retractions of the chest, or rigid abdomen, and those with a constellation of irritable appearance, cervical nodes, or questionable lung findings.

Paige and co-authors said that an evaluation of 1,188 patient visits indicates that almost twice as many children are receiving care since the triage system was started, that preliminary triage by the health aide minimizes the number of patients inappropriately seen by the nurse pediatric practitioner, that agreement between the diagnoses of the physician and the nurse is about 90 percent, and that weighted scores more rapidly and accurately identify significant clinical problems.

The authors concluded that the screening form and the scoring system allow more effective use of the nurse pediatric practitioner's time, maximize the number of patients handled, facilitate the flow of patients, enhance communication between the nurse pediatric practitioner and the physician, and provide a basis for data gathering and monitoring.

Environmental Health Future Lies in a Broadened Base

A look into the future of environmental health was offered by Gershon W. Fishbein, editor, Environmental Health Letter. He pointed out that most of the environmental health problems of 1961 are still with us—multiplied a thousandfold—and many new ones not foreseen then are in evidence. More significantly, he went on, an integrated attack on the problems remains today more valid than ever before.

Environmental health today is everybody's business. And, the future of environmental health lies in fostering alliances with other groups with similar objectives. Fishbein stressed that neither health nor

any other aspect of environmental control can prosper in isolation from each other.

The future of environmental health lies in broadening its base to include the social consequences of its solutions. According to Fishbein, the environmentalist must not be content with looking at the automobile through the tailpipe, but must consider the total impact of the automobile on the entire fabric of our lives. In this context, he said, the environmentalist may find that pollution is the least objectionable aspect of the automobile. Environmental health must not confine itself to lead in auto exhaust, but must also consider lead in the blood of hungry children eating lead-based paint off the walls of broken-down housing. Fishbein reminded that the two greatest environmental health problems are crime and poverty. The relationship, he said, is obvious: pollution fouls man's environment, and poverty chains him to it.

The city, Fishbein concluded, will be the arena of the new environmental health action. The quest must be to make our cities more hospitable—to ideas as well as to men, to innovation as well as to immigration. Just as urbanization has given rise to many of the environmental health problems of today, so too is the urban area the proving ground for their solutions.

What We Need is Grade A, Super Special Health

Most of our guides in developing priorities for a national health program are oriented to degrees of ill health, personal incapacity, or degradation of the environment. We need indexes of good "grade A, No. 1, super special health," if you please, said Dr. P. Walton Purdom, president of the American Public Health Association, and director of the Center for Urban Research and Environmental Studies, Drexel University, Philadelphia. We need an index for an environment that is stimulating to the highest level of creativity. There must be something more to health and life than deferment of death, he said, more than fear of withered and disfigured bodies and mindless days.

Time and again it has been suggested that priorities be set on the basis of benefit-cost analyses, Purdom said. Such a system is completely rejected by others because the computations usually are in terms of dollars, and the intangibles of human suffering or human fulfillment are not easy to equate to dollars.

The classic priorities for health are familiar: the prolongation of life and prevention of premature death, the prevention of disease and disability, the promotion of efficient human function, and the attainment of human potential and fulfillment. With social benefit-cost analyses, the following priorities are offered: first, survival of the human species; second, the prevention of those conditions that lead to the destruction or retardation of human function and potential in the early years of life; third, the achievement of human potential and prevention of the loss of productivity of young adults and of those in the middle period of life; and fourth, improvement in the quality of life, especially in the later years.

Purdom said he saw little purpose in heroically prolonging life only to relegate the aged to an existence apart from society on the fringes in "human trash heaps." Other societies venerate the wisdom and compassion that comes with age, he continued. Why do we apply our wasteful culture of obsolescence to human resources?

The maximum social benefit is obtained when antisocial events are avoided or prevented from occurring, said Purdom. Usually the greatest return for dollar spent also occurs at this point. Action aimed at minimizing the effects of our failures is next in priority, to be followed by rehabilitation, restoration, or corrective measures. On the basis of the foregoing, Purdom suggested, the following program areas are most deserving of attention in the United States:

A. Preventive measures
   1. Survival of the human species through population and environmental management.
   2. Maternal and child health to reduce infant mortality.
   3. Nutrition to eliminate hunger and malnutrition.
   4. Accident control, especially environmental and physiological factors.
   5. Occupational health and safety.
   6. Mental health, including addictive problems of drug abuse and alcoholism, as well as environmental factors influencing mental health.
   7. Prevention or eradication of communicable diseases, such as venereal disease, food poisoning, and so forth, where knowledge of control is abundant.
   8. Waste management: air, water, and solid waste.
   9. Chronic diseases, such as cancer.
   10. Land use and urban design.

B. Minimization of effect measures
   1. Medical intervention through an acceptable, readily accessible health care system for all people in the United States.

2. Environmental intervention involving an early warning network and emergency control measures.

C. Rehabilitation, restoration, and corrective actions

1. Medical procedures.
2. Physical therapy.
3. Mental adjustment.
4. Environmental design.

Purdom also outlined a program of continued action. We will never achieve the health status to which we aspire except through preventive measures, he said. But even at best we will not achieve perfection. For all Americans, meeting the cost of health services is a serious worry.

The American Public Health Association has recommended a program that provides for a compulsory prepayment system for health care, with universal coverage, operated by the Government. This plan or some other will possibly be adopted in the next year or so, said Purdom.

Such an event probably will be heralded as the end of our worries, but not so. There still will be the problem of accessibility and adequacy of services for many people. Just as Medicare is a cruel hoax in what it promises old people and in what it delivers, he said, so may a general health insurance program be a hoax if we do not do something dramatic to assure the availability of the needed services.

Drug Abuse Survey Made In Six N.J. High Schools

A combined research and educational program, the result of a study initiated in the summer of 1969, was developed by the divisions of drug abuse and biostatistics, department of preventive medicine and community health, New Jersey Medical School (College of Medicine and Dentistry of New Jersey). Nine fourth-year medical students concerned with drug abuse in the community assisted in the program.

Methodology

Dr. E. A. Wolfson, director, division of drug abuse, Dr. M. A. Lavenhar, director, division of biostatistics, and their associates listed the following objectives: to determine the use rates among high school students of various substances used for nonmedical reasons, to ascertain the attitudes of the students toward the illicit use of drugs, to assess motivation both for drug use and for avoidance of mind-altering drugs, to measure the student's knowledge of the known physical and psychological effects and legal ramifications associated with abuse of various mind-altering drugs, to establish a data base to evaluate and analyze demographic, sociological, and psychological correlates of drug use, and to develop baseline data for evaluation of high school educational programs in drug abuse.

To meet these objectives the investigators divided the program into the following four phases:

1. A comprehensive precoded drug abuse questionnaire, to be completed by the students on a voluntary and anonymous basis under student supervision.

2. Within 7 days, a formal talk by a faculty member, division of drug abuse, on the various aspects of the drug scene, followed by an extensive question and answer period.

3. Approximately 1 week later, a team of medical students would hold a large number of informal seminars with small groups of the students.

4. About 2 months later, a followup questionnaire would be used to evaluate the program by determining what changes in attitude, use, and knowledge had occurred since the program was started. In addition, the students would be asked to comment on the initial questionnaire, the formal presentations, and the participation of the medical students.

Results

More than 5,600 students from six predominantly white and middle to upper middle class suburban neighborhoods were surveyed. The proportion of current users of drugs ranged from 17 to 33 percent. Including those who no longer were using drugs, the total of those who had experienced drug use ranged from 25 to 42 percent, the investigators reported. Use among male and female students was comparable.

Among high school students who reported using more than one drug, the likely order of use was marijuana to hallucinogens to barbiturates or amphetamines to narcotics. Drug use also increased from freshman to senior years, the investigators noted.

In many major studies there was a greater prevalence of illicit drug use among boys than among girls, according to the investigators. In contrast, the current and total drug experience reported by the male and female student population that Wolfson and Lavenhar studied was comparable in virtually all categories. Although the differences were small, their survey further revealed that the percentage of girls using either amphetamines or barbiturates without a prescription was higher than that for the boys using those drugs. The hypotheses derived from this investigation have been and will continue to be tested for statistical significance on independent sets of high school students. The following points deserve emphasis, the investigators said:

1. Careful consideration must be given in any population study to current use of drugs as contrasted with total use and with frequency of use. In this series, 23.5 percent of the seniors were current users of marijuana. An additional 9 percent had tried marijuana in the past, but by the time they had reached the senior class they had discontinued its use.

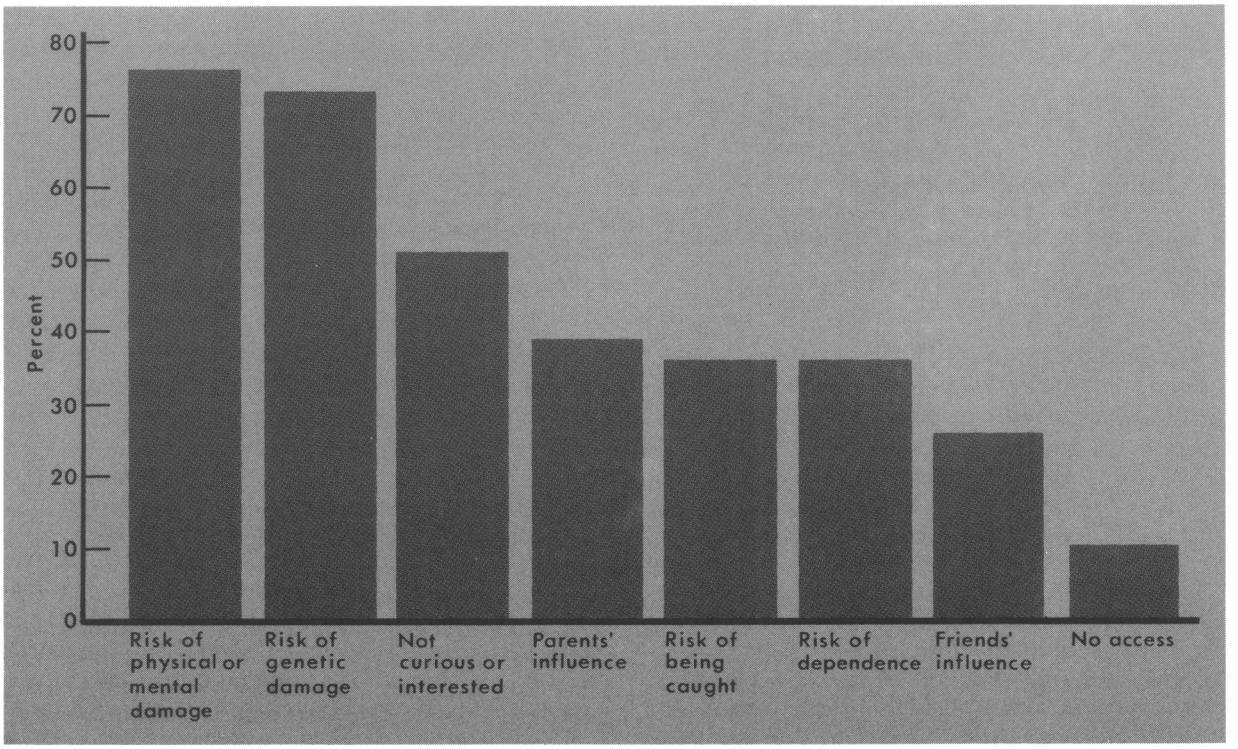
In the absence of accurate data, judgments about the prevalence of drug use are often made on the basis of informal and grossly inaccurate information, in the opinion of the authors. This, they said, is well illustrated in two of their schools. In one, the school administration and the community were in despair because of student estimates that more than 90 percent of the seniors were users of illicit drugs and a corroborating police estimate that more than 80 percent were drug users and more than 20 percent were dependent on "hard drugs." These estimates were based primarily on discussions with drug users—noted for overestimating the prevalence of use.

In contrast, the authors' survey showed that the prevalence of marijuana use was 33 percent and the amount of current heroin use was approximately 1 percent. In a second school a local antidrug group, attempting to solicit community concern and support, made the statement that 60 percent of the seniors were marijuana users; the survey showed the figure to be 20 percent. Even though the survey may have underestimated the use of drugs, in the authors' opinion it is far more likely that it, rather than the informal estimates, reflected the actual pattern of use. Statements that marijuana should be legalized because the majority of students are using it or that the norm of a college student is use of marijuana—nonuse being "deviant" behavior—disregard the available data and the irregular, occasional, and ephemeral nature of use by many young persons, said Wolfson, Lavenhar, and associates.

2. Despite optimistic statements concerning the prevalence of experimentation with LSD, there is no evidence that the use of this drug has declined substantially, according to the authors. Their study placed the use of LSD among senior students at 4.1 percent in 1969–70. The range in other schools surveyed by the division of drug abuse in New Jersey in 1970–71 was 1 to 6 percent. Thus, despite all the educational efforts, use of LSD continued, with no evidence that it diminished in those 2 years.

3. The data on intravenous methamphetamine and heroin are distressing, the authors said. Among the juniors and seniors they studied, the prevalence of use was approximately 1 percent. They pointed out

Major reasons cited by students for abstaining from the illicit use of drugs, excluding tobacco and alcohol



that even the most avid proponents of a laissez-faire approach to the use of dangerous drugs would agree that should use of these agents increase, vigorous steps would have to be taken.

4. Curiosity and pleasure appear to be two of the most important factors for drug use in the eyes of the student users. It is equally important to assess the reasons for not using or for discontinuing drug use. In this study, the major reasons for abstaining from the use of illicit drugs (see chart) included risk of physical or mental damage (76 percent), risk of genetic damage (73 percent), and lack of curiosity or interest (51 percent).

In the authors' survey, as in most surveys, the reasons for discontinuing a given drug were not analyzed. The authors said that lack of this type of information in their educational programs inadvertently could have promoted the use of drugs. If prevention is to succeed, they went on, far more attention must be devoted to these aspects of drug use.

5. A clear dichotomy exists between the perceptions of the user and nonuser students concerning influence of the peer group. Users tended to minimize the influence of such pressures, whereas the nonusers listed peer group pressure as a major reason for drug use. Recognition of the role of the peer group is causing many educators to feel that prevalence of drug abuse among the young will decrease markedly only when the peer group itself decides that promiscuous or illicit drug use is not acceptable behavior, the investigators said.

6. The authors' studies showed convincingly that those using illicit drugs—marijuana, methamphetamine, LSD, and heroin—are far more likely to use "legal" intoxicants, cigarettes and alcohol. As far as they could determine, they said, every survey in which this has been investigated shows that the user of illicit mind-altering drugs is more likely than the nonuser to use legal intoxicants.

7. An increasing problem appears to be multiple drug use. Approximately one-third of current marijuana users have had experience with LSD, a figure consistent with other observations indicating that although the majority of marijuana users do not use other more dangerous drugs, a sizable minority do. The question concerning the time period in which a given drug was used suggests that use of marijuana ordinarily preceded experimentation with drugs such as LSD, intravenous methamphetamine, or heroin. The 13 percent use of intravenous methamphetamine among current marijuana users is distressingly high, as is the 11 percent use of heroin but, the authors pointed out, these findings are consistent with the data of others. Other studies also corroborate their findings that use of the more dangerous substances is related to the frequency of marijuana use.

The investigators' data also show that users of LSD, methamphetamine, and heroin are not disparate populations. More than one-third of LSD users had taken heroin, and approximately 60 percent used methamphetamine intravenously. Conversely, 80 percent of heroin users experimented with LSD. Indeed, it is possible, they said, to formulate a profile of drug-use patterns for more dangerous drugs that may be helpful in evaluating the individual user. The LSD user almost certainly (98.3 percent) has used marijuana and hashish but in most instances has not used methamphetamine or heroin. The intravenous methamphetamine user is likely to have used LSD (80 percent), marijuana and hashish (95 percent), and may have taken heroin (50 percent). The heroin user is at the end of the line; he will likely have used marijuana and hashish (more than 90 percent), LSD (80 percent), and intravenous methamphetamine (75 percent).

Specific patterns of personality aberration are suggested if this pattern of involvement is not found. For example, one of the investigators was asked to see a 17-year-old boy from an affluent suburban family because of his addiction to heroin. He used marijuana, barbiturates, and heroin, but not LSD or methamphetamine; this order contradicts the usual abuse profile in our suburban communities, the authors pointed out. The nexus among the three drugs he used could be their capacity to alleviate anxiety. Subsequent study showed that the boy suffered from an overwhelming identity crisis far beyond normality. His identity problems created depression, and the depression evoked severe anxiety, which he attempted to handle by taking an anxiety-relieving drug.

8. Many young persons who experiment with illicit drugs have no valid knowledge about the possible legal and psycho-physiological consequences of their actions. It is reassuring, said Wolfson, Lavenhar, and associates that the vast majority of students, users and nonusers alike, are eager for more knowledge about drugs and their effects. Since many students depend on a misinformed peer group, relevant and honest education is essential.

User and Nonuser Characteristics

Most of the significant associations found between various demographic and social characteristics and selected types of drug use by suburban high school students in northern New Jersey were also observed in distant student populations. In comparison with the nondrug users, student respondents who were using each class of drug for other than medically approved reasons were generally less religious, had poorer grades, participated in fewer school or community activities but were more involved with political organizations and underground or activist groups,

and were less certain about their futures. They tended to be less satisfied with the manner in which they were reared by their parents and were more likely to be products of broken homes or loosely knit family structures. They were more likely to use tobacco and alcohol and to have parents who were frequently using tobacco or alcohol or both and certain depressant drugs under medical supervision. They were also more likely to have parents, siblings, and close friends who had used or were currently using drugs for other than medically approved reasons.

Contrary to recently published reports on the use of drugs in school populations, the use studied in this investigation appeared to be independent of sex. While it has been generally accepted that drug use is more widespread among male than female students, in this study population the sexes differed only with respect to frequency of use. The males tended to be more frequent users of marijuana, and the females tended to be more frequent users of amphetamines and barbiturates. It is possible that the general trend toward sexual equality and the acceptance of similar standards for males and females has already made its impact on the New Jersey drug scene.

While the study results occurred with many previous findings indicating that students with no religious affiliation and students of Jewish religious backgrounds tended to have more drug experience than students with other religious affiliations, the present study revealed no greater drug experience by students currently practicing the Jewish faith than by students practicing other faiths. Current religious practice therefore should be distinguished from religious affiliation in drug surveys, the authors said.

Comparison of the characteristics of nonusers, past users, and current users of marijuana revealed a wide range of attribute profiles, with nonusers and frequent users at the extremes. This result suggests the possibility of a continuum of underlying attributes, predisposing toward the use of marijuana, ranging from nonuse to casual experimentation to occasional use and extending to moderate and frequent use of the drug.

The stepwise regression procedures employed, the investigators said, revealed that nonmedical use of drugs by many close friends was the most significant factor contributing to the explanation of each criterion of drug use. Their findings strongly suggest that peer group pressure is one of the major factors leading to drug use by students.

Cigarette smoking was also prominently cited in each analysis as a major contributing factor in explaining the student's use of drugs. Although the relationship between cigarette smoking and use of marijuana has been firmly established, the fact that the observed association between cigarette consumption and the consumption of drugs other than marijuana appears to be even stronger has not been widely reported.

Any programs attempting to mitigate the growing drug problem will have to be cognizant of the profound influences of parents, siblings, and close friends on individual users, Lavenhar, Wolfson, and associates concluded. Moreover, preventive efforts must be directed not only parochially to individual students but also broadly toward all those whose behavior and attitudes are likely to influence their use or nonuse of drugs for other than medically approved reasons.

To Improve Delivery of Care You Need Definitive Data

Definitive data on cost, productivity, alternative staffing arrangements, effects of new equipment, and so on, are needed to guide the design of more complex and presumably more effective delivery of health care, said Albert B. Drui, associate professor of mechanical engineering, University of Washington. In a three-part study of methodological issues in measuring ambulatory care, the following projects were evaluated.

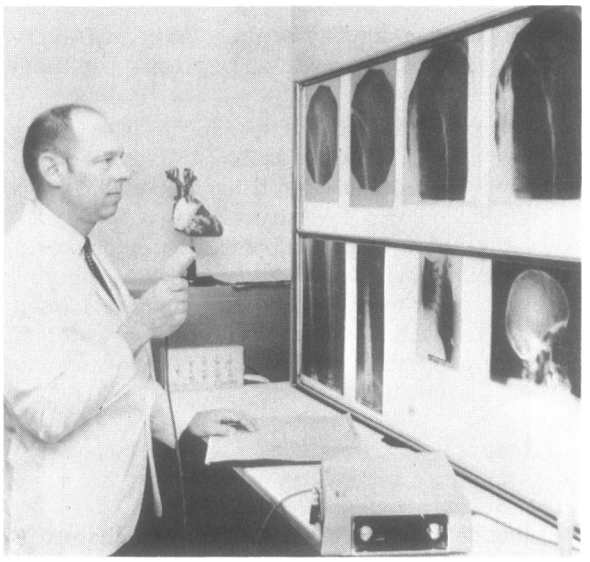
Mobile Intensive Coronary Care

This demonstration project was conducted in Seattle to extend the emergency services of the city hospital by a service called Mobile Intensive Coronary Care Unit, or Medic I. The unit was a bus that had been modified to care for coronary patients; it supplemented the rescue cars operated by the fire department.

Examination of the design and layout of Medic I indicated that, for the primary emergency vehicle needed, one could combine a typical ¾-ton pickup truck and a pickup camper (modified or custom built). The weight-carrying capability, interior space, capacity for incorporating subsystems, performance, and handling, must be balanced against vehicle cost and sophistication to result in a vehicle that will provide optimum use, said Drui. Thus the original Medic I bus was replaced by a smaller van for about one-fifth the cost. It uses less gear and depends largely on portable devices, which are used at the victim's side as well as in the vehicle en route to the hospital.

The Radiologist

Examination of the strategic subsystem of diagnostic radiology, Drui said, shows that its mission and activities are geared primarily to one objective: interpreting an X-ray film to the physician who has charge of the case. In performing this function,



Radiologist using premounted panel, which slides out of magazine below

radiologists are provided with the latest technical innovations, a team of X-ray technicians, a supporting group of file clerks, and other helpers.

A trial run by several staff radiologists at hospitals of the Universities of Washington, Oregon, and California established that the time required to produce a final radiology report could be shortened greatly if the files were handled by someone other than the radiologist, Drui reported. The radiologist was supplied with premounted panels of film arranged in the conventional viewing order so that he could proceed quickly from one diagnosis to the next with minimum handling and interruption of time. A test of this method indicated that over a short period the output of diagnoses could be doubled. Subsequent revisions in layout of work locations were aimed at using space more effectively. Film handling time was reduced from 20 percent when the radiologist was unassisted, to 5 percent with assistance, to very little time if the magazine was loaded, he said.

The diagnostic radiology department was completely reorganized to sequence radiograms through five film-handling machines that were put into regular use, and by the additional upgrading of residual film reporting from unassisted to clerk-assisted modes. Each film viewer handled a subspecialty of radiology such as surgery, pediatrics, gastrointestinal examinations, and so on, so that the workload was physically as well as functionally spread throughout the department. The average gain in efficiency reported by the radiologists over a 2-year period indicated a 31 percent increase in film reading efforts as measured by patient care units. In this way, Drui said, the University of Washington gained approximately three radiologists without employing additional personnel.

Medex, the Physician's Assistant

A program called Medex was instituted at the University of Washington to use former military corpsmen as another pair of skilled hands to assist rural physicians, Drui reported. The corpsmen were trained 3 months in the classroom and 12 months with a physician in practice. An elaborate program of matching physician with Medex was developed. Fourteen Medex were trained in 1970. The program was expanded to five States in 1971, with a goal of training 230 Medex.

Time logs of the physicians' activities were gathered by use of a timing device consisting of a 10-channel inkless recorder, operated in the physicians' cars. The physicians depressed the appropriate buttons on the recorder to indicate location—accident, home, hospital, office, patient's home, personal time, travel. If the location changed, they depressed another button, transferring the charting to a new channel. No previous study of this type has ever been made on the total time activities of physicians, said Drui. The program had the most thorough documented evaluation, including before and after studies of the physicians' activities. An entire book of statistical results is available to the evaluators.

Use of the computer with biostatistics was helpful, he said, as many cross correlations could be made to answer questions on staffing, skills, time distribution, productivity, urgency, and so on. The gross statistics indicated that 34 percent more patient visits were achieved with the use of Medex, at an average decrease of 12 hours per week in the physician's time. Medex were hired at the annual salary of $8,000–$12,000.

Four Options Are Suggested To Constrain Hospital Costs

As a result of Medicaid and Medicare, Federal and local governments and Blue Cross now represent the mechanism of payment for the vast majority of insured consumers for hospital care.

The following four options, which are not mutually exclusive, could constrain the costs of inpatient hospital care, said Dr. Lowell Eliezer Bellin, first deputy commissioner, New York City Department of Health, and associates:

Option 1 attempts to influence physicians to exercise greater prudence, selflessness, and responsibility.

Option 2 expects that the administrators and boards of the hospitals and nursing homes will themselves provide excellence in service and efficiency in

operation and simultaneously maintain prudent cost control of inpatient care.

Historical experience testifies against exclusive reliance on these traditional options, Bellin and associates asserted. It is already a truism that the method of reimbursement for both physicians and hospital services impels patients to pressure physicians to use inpatient facilities and militates against pressures from hospitals to control hospitalization and length of stay.

The broadest insurance coverage continues to provide for inpatient rather than outpatient care. About half of the nation's enrollment in Blue Cross continues to have full coverage ranging from 120 days to an unlimited period of hospitalization. Physicians continue to be paid in nonsurgical cases on a hospital per-visit basis. Hospitals continue to be penalized fiscally for having empty beds. These administrative constants add up to something, the investigators said. The hospital has little incentive to improve efficiency of operations and services under a formula whereby its per diem rate would decline with an increase in efficiency—nor are the abstract arguments about efficiency persuasive to hospital administrators, who must agitate their boards and medical staffs under this formula to achieve such efficiency.

Option 3 relies on Blue Cross and other insurance carriers to place constraints on the costs of hospital care.

Past experience has documented the lack of ability or will of Blue Cross to perform this function, said Bellin and associates. The National Blue Cross Association has inherent operational difficulties. It must simultaneously serve its consumer subscribers on the one hand and its hospitals on the other.

In reconciling the imperatives that derive from two constituencies that have become progressively more adversary to one another, the investigators said, the National Blue Cross Association or its local affiliates have had limited success in instituting cost control programs, reducing the number of admissions or length of stay, or both, expanding programs relating to out-of-hospital care, or improving the efficiency of hospital operations. The primary concern of Blue Cross has been to maintain a system whereby hospitals are paid for services rendered to their subscribers. In response to the hideous inflation has come the familiar litany of increasing Blue Cross premiums and diminishing benefits, together with progressive replacement of community rating to experience rating of Blue Cross subscribers.

Option 4 calls for an activistic government role in hospital cost control.

In view of the existing options, Bellin and associates said, Government today has no intelligent choice other than to abandon its traditional post facto, legitimating, and ceremonial role of controlling hospital costs, productivity, and services.

The four options offered stemmed from a 6-month feasibility study by the authors on hospital cost and utilization control through the regulatory powers of a municipal health department—the New York City Department of Health.

Liberal State Abortion Laws Affect Maternal Mortality

Liberalized abortion laws have led to sharp decreases in maternal mortality; in California the rate per 100,000 dropped from 8 in 1967 to just over 3 in 1969, and in New York City the rate of 2 per 10,000 live births is less than half the rate for a similar previous 12 months.

Dr. David Harris, associate director of Mount Sinai Hospital, New York City, and former deputy commissioner of health of New York City, and his health department co-workers reported on changes occurring since the New York State law went into effect in July 1970, and Dr. Phillip Goldstein and Dr. Gary Stewart of San Francisco General Hospital, on data concerning San Francisco following passage of the California statute in 1967.

New York City's Experience

From July 1970 to July 1971 more than 139,000 abortions were reported to the city's health department; however, the authors estimate the actual number of operations to be 168,000. Termination of pregnancy certificates, required in the city, were a source of the data on patient's legal residence, mode of termination, facility where termination was carried out, weeks of gestation, reasons for termination, age and parity of the female, and whether a previous termination occurred since July 1970. Other sources of their data were weekly reports on complications from all hospitals performing abortions and daily telephone reports from the municipal hospitals.

Most abortions were performed on nonresidents—105,278, compared with 62,625 on residents, with the ratio of residents to nonresidents reaching 1 to 2 by July 1971. Nonresidents tended to be white (90 percent), nulliparous, and young (65 percent were between 18 and 34 years). Of the city residents, 55.8 percent had had at least 1 previous pregnancy and for 12.5 percent, this was pregnancy number 5 or more; 47 percent were white, 43 percent nonwhite, and 10 percent Puerto Rican.

There was a striking emergence of the out-of-

hospital or freestanding facility as the provider of abortions, Harris and co-workers declared. From July through December 1970, they provided abortions for 11 percent of nonresidents, and for the second 6 months, for 50 percent of the nonresidents. From the first to the second 6 months, the percentage of city residents going to these facilities rose from 0.6 to 10.2

Predictions that the demand would overwhelm facilities and lead to delays and later, more difficult abortions were not fulfilled, the authors noted. Almost three-fourths of all abortions were performed before 13 weeks gestation.

During the 12 months, vacuum aspiration became the most popular method of terminating pregnancies (see chart). Saline instillation was used less frequently, a reflection of the trend toward abortions earlier in pregnancy. Eighty percent of the nonresidents and 83.6 percent of the residents were in the 18–34 age group.

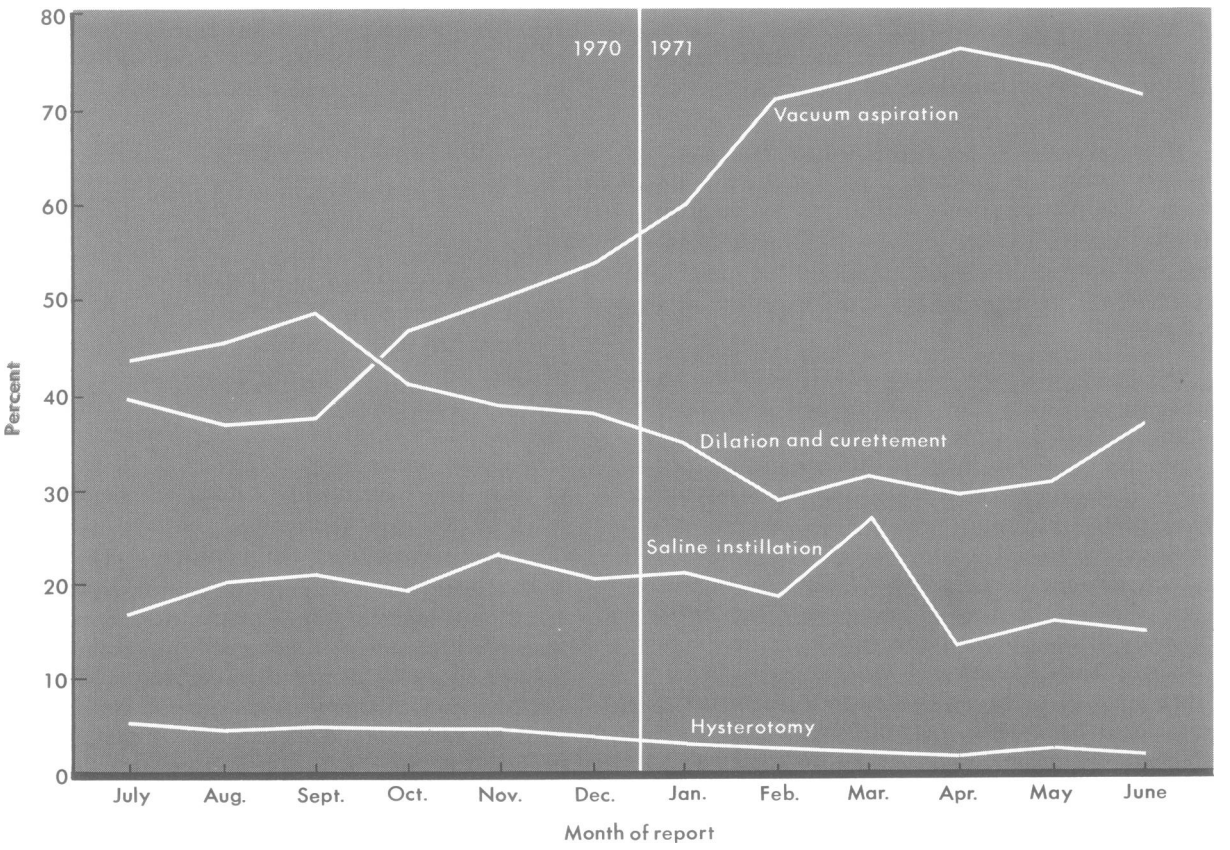
The hospitals' weekly reports indicated an overall rate of complications of 8.5 per 1,000 abortions, with 26.8 per 1,000 for abortions at 13 weeks or more. Abortions with complications numbered 1,117; complications occurring most frequently were retained tissue 289, infections 248, hemorrhage 192, and perforated uterus 192.

In addition to the drop in maternal mortality, the authors cited other possible effects of the ready availability of abortions—the 7.5 percent decrease in out-of-wedlock births, the 6.5 percent decrease in all births, and a decrease in neonatal mortality.

San Francisco Experience

Goldstein and Stewart indicated that more freely available abortion services are responsible for the decline in septic abortions in San Francisco. In large municipal San Francisco General Hospital, the rate was 68 per 1,000 live births in 1967 and 22 in 1969. A drop also occurred in spontaneous abortions at private hospitals, from 125 per 1,000 live births in 1967 to 49 in 1969. Clearly then, there has been a fall in criminal abortions, they stated, both in septic abortions which represent only the tip of the iceberg and in spontaneous abortions many of which, were in fact, not all that spontaneous.

Percent of abortions performed by each mode of termination, New York City, July 1, 1970-June 30, 1971



They noted a trend toward abortions at an earlier point in gestation; in 1968 in San Francisco 63 percent were done by vacuum aspiration and 28 percent by saline instillation; by 1970, 74 percent were by vacuum aspiration and only 22 percent by saline instillation.

The mean age group for the women undergoing pregnancy termination in San Francisco was 20–24 years; about half were nulliparous. Of the 7,900 abortions performed in San Francisco in 1970 only 6 percent of the patients had Latin surnames; this group forms an estimated 14 percent of the city's population. The ethnic distribution of the other patients, however, paralleled that of the hospital's service area.

In San Francisco, teenagers and the indigent entered the abortion services later in pregnancy than other groups, the authors said. Thirty-seven percent of abortions of teenagers were by saline instillation, and 33 percent of the black women came after 14 weeks' gestation, compared with 20 percent of the white women. Tubal ligation in conjunction with vacuum aspiration was the procedure for 3.5 percent of ward patients compared with 1.7 percent of private patients.

Goldstein and Stewart pointed out that abortion carries a significant morbidity based on gestational age. They were hopeful, however, because the more morbid procedures (co-existent sterilization and saline instillation) are decreasing in popularity, indicating increasing patient education, a removal of administrative obstacles, implementation of innovative techniques, and wider availability of services.

Pornography is an Issue For Public Health

The broadening of public health to encompass a state of complete physical, mental, and social well-being requires awareness of the forces that move people. One of the most important and fundamental of these forces is eroticism, according to Dr. Mary S. Calderone, executive director of the Sex Information and Education Council of the United States (SIECUS). She noted that while it has never been easy to live with this drive, we are slowly coming to grips with it. It must be understood, she said, for we cannot socialize successfully what we do not understand, and so long as we fail to socialize eroticism, the term pornography will have to survive. The ability to judge the appropriateness of erotic expression is so underdeveloped that there is a tendency to use the term pornography indiscriminately.

Eroticism is present in every person at all ages. This knowledge, not yet widely acknowledged, should mobilize efforts to help people to integrate this force in a constructive manner, in Calderone's view. Many still deplore this force and try to control it by suppression, and ignorance about it has resulted in a tangle of myths, falsehoods, and superstitions.

Public health requires recognition that eroticism is a component integral to life. Individuals in society must learn how to develop appropriate expression of erotic drive. The question today is exactly that of appropriateness. The blocking of true scientific research in the area of sexuality has resulted in a displacement of it; as a result, pornography as a pejorative term is used indiscriminately. The erotic norm for one person may be considered misused or pornographic by another. Each then interferes with the rights of others. Who is to judge? Calderone asked.

From a public health point of view, the question is not of judging, but of making scientific decisions as to when eroticism may be so misused as to be noxious to society or to large groups of people in it. Groups like the Commission on Obscenity and Pornography are trying to establish the "pollution" level or "pornographic" level of explicit sexuality. Questions about it may be put in epidemiologic terms—nosology, etiology, incidence, susceptibility, therapy, prevention, immunization, and quarantine. When does explicit public sexual behavior become social pollution? The implications of this question, Calderone pointed out, are quite different from those that an individual person must ask himself about his erotic behavior and its appropriateness or lack of damage to others.

There are parallels, Calderone noted, in consideration of prostitution. More helpful than moralizing about prostitution would be answers to such epidemiologic questions as, has the incidence of prostitution increased or has an increased population increased visibility? Has etiology changed due to changes in attitudes, social environment, or consumer demand? Are the participants, men and women, changed? What are the factors that make a person susceptible and how do we immunize against these factors? If we were to successfully immunize, what would be the effect on those who patronize the prostitutes? These questions lead to many more, she said.

The interest and involvement of behavioral scientists and many other public health professionals intersect regarding human sexuality. What is needed is widespread sex education for all ages that is effective without being "pornographic," whether the aim is control of venereal disease, prevention of undesired pregnancies, or development of mature gender identity and responsible sexual behavior, Calderone proposed. The goal of this education, she went on, is to replace ignorance with knowledge

and experience in such a way as to permit retention of the freshness and integrity of attitude about human sexuality that marks true innocence.

Citing Dr. Judd Marmor ("Normal" and "Deviant" Sexual Behavior, JAMA 217: 165–170, July 12, 1971), Calderone identified the need to define healthy sexuality in positive terms of how to achieve it in young as well as older persons. The key, she said, is the feelings that motivate sexual behavior. Healthy sexuality expresses itself in tenderness, affection, the giving as well as the receiving of pleasure, discrimination as to partner, and release of recurrent erotic tensions in a context of affection. Neurotic sexual drives are characterized by needs for reassurance, excessive giving or taking, nondiscrimination, and compulsion.

SIECUS was initially concerned with understanding human sexuality other than the erotic—gender identity, gender role behavior, reproduction, and male-female relationships in society and the family. Now, Calderone stated, the basic erotic drive must be understood as a part of these relationships and as a part of man's forward search for truth.

Calderone noted that the church has joined in the efforts to understand sexuality. She cited G. William Jones, an ordained Methodist clergyman, member of the faculty at Southern Methodist University and a member of the Commission on Obscenity and Pornography: "Although many religious persons may be distressed by the findings of our research, they must certainly rejoice that misconceptions and prejudices are being replaced by knowledge, and that concern and efforts may now be redirected toward what appears to be the surer roots of the sexual maladies of our people."

Planners of Health Programs Find Public Apathy Barrier

Conventional rationalizations of public medical care programs in terms of need, demand, incremental increases in capacity of self-care, long-term savings, and the like may have little or no social currency, and popular expectations may in fact be considerably more ambitious than heretofore conceived in medical care circles. Dr. Ronald L. Crawford and Dr. G. E. Sharples, assistant professors at the University of Michigan School of Public Health, stated that the importance of public support is often overlooked by persons designing medical programs.

The authors described "failure to thrive" as one indication of lack of public support. They listed the following indicators as measurers of a program's vitality.

Are other neighborhoods demanding replicas of the program to serve their own populations?

How many applications is the sponsor receiving from groups or institutions oriented toward patient care over and above teaching, research, or the fiscal needs of clinical departments?

Do local politicians find it expeditious or prohibitive to include a replica program among their promises, or show a willingness to provide matching funds, or commit their administrations to pick up the slack as seed moneys and staffing grants expire?

Crawford and Sharples indicated that few programs legislated in recent years, whether directed toward comprehensive services or specific disease entities, have been able to gain this type of public support.

They asserted that when deciding whether or not to support a program to help others a person may think in such terms as: How greatly will it improve the general social situation? To what extent will the program alleviate the problems (for example, welfare, medical, and police) and costs the target group presents for the greater society? Is it worth the cost? Are the costs prohibitive or out-of-line with the gains? Acknowledging that they (the target population) are likely to get only one big, dramatic program at a time, is this the most that can be accomplished for them for the investment? How much worse off would they be without any program? How long will it be needed?

The authors hypothesize that the general public devalues or discounts the worth of impaired persons or groups in much the same manner as they estimate the value of health measures or risk of future illness, and that they base these perceptions upon the impact of existing programs.

Programs That Win Public Support

Types of programs listed by the authors as currently generating public support fall into the following general categories.

1. Programs for residual groups, such as disabled veterans of past wars and poliomyelitis victims, that are unlikely to grow in numbers and ultimately are self-nullifying through natural attrition, have generally received a great deal of public sympathy.

2. Programs capitalizing upon technological advances or other scientific breakthroughs which offer high ratios of benefits to costs or dramatic, lasting benefits at relatively high costs often achieve rapid acceptance and implementation. Immunizations, vision screening, and many environmental health measures, such as automobile emission controls, have also won popular acceptance. Methadone programs and compulsory Antabuse for convicted alcoholic drivers appear headed toward that status.

3. Small groups, such as victims of unusual diseases, crippled children, and quintuplets have often elicited interest disproportionate to their numbers, while large groups, as in the case of epidemics or natural disaster, exemplify causes in which need is of relatively short duration and self-limiting.

Promising Approaches

Judicious use of professional and public relations techniques, rigorous application of new management aids and organizational innovations, maximum use of paramedical manpower, medical care rights litigation, and other strategies offer some promise. Taken alone, however, these may only postpone the day of reckoning unless community social and economic development are also fostered or evolve independently.

Despite a few highly publicized successes, social action has not yet taken hold in terms of dominating other programs, the authors commented. A more typical approach has been to run one or two tentative, relatively small-scale projects on a subsidiary basis. For example, several programs now have legal staff or work closely with neighborhood legal aid groups to follow through the courts when they encounter an intransigent slumlord or unscrupulous merchant. Others have backed or offered their services as consultants to indigenous economic enterprises. Attempts to increase political representation and other experiments have met with some success, but for the most part, clinical care continues to predominate.

Midwife Services Introduced In Prepaid Group Practice

Effective introduction of midwife services in a health care system requires careful orientation of the first-contact staff, as suggested by Dr. Jane Cassels Record, senior economist, and Dr. Harold R. Cohen, chief of obstetrics-gynecology, at Kaiser-Permanente in Portland, Oreg. Before the first certified nurse-midwife (CNM) began practice, clerks in the Kaiser central appointments center were carefully instructed about the CNM's qualifications and the manner in which her services were to be offered to Kaiser Health Plan members. Patient responses to the initial offer were coded.

An appointment with the nurse-midwife was suggested by appointment clerks for prenatal and postnatal examinations in uncomplicated pregnancies, for instruction in family planning, and for minor gynecologic problems, unless the patient requested a specific physician whose appointment roster was not full.

Patient receptivity was high. During the first 4½ months beginning in February 1971, 512 of the 562 patients to whom the CNM's services were offered accepted. Of the 562, 30 (5 percent) asked for the CNM; 166 (29 percent) accepted her upon learning that the specific physician requested had no vacant time in the near future; 206 (37 percent) did not ask for a specific physician and accepted CNM services without inquiring whether all physicians' time had been taken; 89 (16 percent) were willing to see her only after being told that no physician time was available; 21 (4 percent) saw the CNM on an emergency walk-in basis; 29 (5 percent) happened to call when physician rosters were not closed and, persisting in their preference for a physician, were given an appointment with a physician; 21 (4 percent) called when physician rosters were closed and elected to wait until they were reopened.

The 512 patients made 895 appointments with the CNM, which resulted in 767 actual office visits. Although the CNM always functioned under the supervision of an obstetrician-gynecologist, a random sample of patient charts indicated that in only 7 of 44 visits did the nature of the problem require immediate physician consultation during the examination. In 10 other instances the CNM referred the patient to one or more physicians, but in only four cases was the physician an obstetrician-gynecologist, indicating a low rate of transfer to medical management where obstetrical-gynecologic problems were primary.

In fewer than half (38 percent) of the first 900 patient contacts (office visits plus telephone conversations) was the "primary presenting morbidity" directly obstetrical. The rest of the contacts largely concerned contraception (191) and routine gynecologic services.

Returns from a questionnaire sent to prenatal class members were strongly favorable. Moreover, a survey of obstetrician-gynecologists 6 months after the CNM program was introduced revealed unanimous agreement that the program should be retained and virtually unanimous agreement that it should be expanded.

Innovative Counseling Aids County Employees

The overweight, the prejudiced, the firefighter with a cardiac condition, the responsible supervisor, the underemployed, the overemployed, and the better educated and trained law enforcement agent are among those served by the occupational health service (OHS), department of personnel, Los Angeles

Photo by Los Angeles Fire Department

Firefighters with coronary artery disease confer with psychologist about future

County. The service's director, Dr. Jean Spencer Felton, and Hershel Swinger, chief of the counseling section, described how their agency works with 72,000 employees of 70 departments of the county in installations spread over 4,000 square miles.

The occupational health service, began in 1968, covers many phases of counseling. The counseling section has grown to include two full-time psychologists and one part-time one, an alcoholism rehabilitation counselor, and a counselor trainee. When needed for group sessions, the after hours assistance of two clinical psychologists from an OHS research project are available. To reach target groups effectively, the group method is used extensively, the authors stated. They emphasized that group therapy is much more like real life than individual one-to-one therapy.

The counselors appraise job applicants psychologically, give individual counseling on referral from supervisors or OHS staff members, manage group sessions for personnel, appraise emotional health status of employees referred for reevaluation as related to job performance, and conduct preretirement consultation.

Group and individual counseling is given to aid probationary employees in meeting weight standards. Participation in the program is mandatory.

Activities Cover Many Areas

To increase the employment and promotion of members of minority groups, a day-long session was organized for the supervisors of a department employing about 1,600 persons. Its objective was to make supervisors aware of cultural barriers between middle-class persons and culturally different groups. Followup has shown positive responses, and these supervisors now feel free to refer their workers for counseling.

A physical fitness program was set up for firefighters, and because they have a high prevalence of heart disease, they were given physical examinations that included sophisticated cardiopulmonary evaluation. Those with evidence of old myocardial infarctions or myocardial ischemias were placed on sick leave. It was in the older, higher rank workers that coronary insufficiency, old and new, was found. The authors stated that skilled counseling was needed to effect a change in the extreme disquietude of suddenly work-bereft men to a frame of mind which would allow them to plan for a change in life style.

The county's communications department was selected for field training of nursing students at the master's level in community mental health at the University of California at Los Angeles. A series of 2½-hour meetings lasting for 10 weeks was organized. The leaders evoked discussion through the presentation of work-related problems and possible solutions, and from this method supervisors gained confidence. The students, in turn, learned of the problems of the worksite and one method of reversing them, according to Felton and Swinger.

To bring the underemployed, the unemployed, the physically handicapped, the emotionally restored,

and the minorities into the labor market, OHS psychologists are giving intensive prevocational counseling in Watts at the South Service Center of the county health department, where the Concentrated Employment Project is operating. The volunteer OHS psychologists represent the county unofficially.

Currently in the planning stage is the implementation of a request from the sheriff's department to provide inservice training in crisis intervention to law enforcement personnel. The authors stated that police need skills in handling fractured interpersonal relationships to effect temporary quieting of hostilities and referral to appropriate sources of care.

National Health Security Is Needed Now—UAWA

The Health Security Program supported by the International Union, United Automobile, Aerospace, and Agricultural Workers of America, is the product of more than 18 months of careful study by a group of the nation's leading health experts, said Leonard Woodcock, president of the union. It is a health program—not an insurance program. Insurance companies are interested in limiting their risks and liabilities; the union is interested in revitalizing the health care system.

Provisions of Union Plan

The whole population should be eligible for all the benefits of national health insurance, solely on the basis of need, Woodcock said. The union believes in health security that provides for benefits covering the entire range of personal health services, including care for the prevention and early detection of disease, the treatment of illnesses, and physical rehabilitation. Its Health Security Program has practically no restrictions on the needed services—no co-insurance, no deductibles, and no waiting periods.

Four categories of benefits would be limited, Woodcock stated, primarily because of shortages of available professional personnel or of available controls in the medical marketplace. The limitations are on dental care, which initially would be available only to children through age 15, on skilled nursing home care, on psychiatric services in and out of the hospital, and on prescription drugs, which initially would be covered only for chronic diseases or conditions requiring costly drug therapy. These restrictions on benefits would not apply to the organized services that are provided in a group practice setting, Woodcock said. The ancillary health professions will be used more meaningfully through the program's emphasis on financial and other incentives to encourage the team practice of health delivery.

National health insurance should undertake to assure the availability of all useful and promising medical care services and of improved delivery systems—not merely to pay for them if they exist, stated Woodcock. For this reason the proposed act provides for a resources development fund that will reach $2 billion annually when the program becomes fully operational.

More confusion and misrepresentation, intentional and otherwise, have arisen about the costs of the proposed comprehensive health security program than perhaps any other feature of the program, Woodcock said. In the great debate that is taking place, the primary issue, he maintained, should be how best to get health services to all people.

The union's fiscal experts, he explained, have put into the Congressional Record evidence to support the union's view that in a health security program, with proper financing and quality controls, it is possible to provide comprehensive health services to all the people at no more cost than the nation currently spends for the fragmented services that most Americans now receive—while many receive no services at all. Furthermore, the current estimates for a 12 percent inflation factor in health care costs could at least be halved in the first years of the program and reduced below that in subsequent years as the reorganization of services becomes fully effective, he said.

Financing Health Care

Today, funds come from public expenditures, representing about 40 percent of the total, from private health insurance premiums paid by employers, employees, and individuals, and from out-of-pocket expenditures, he continued. Under the Health Security Program, funds would be raised primarily through general revenues and the Social Security mechanism. There is no magic to the proposition that it is possible to provide more and better services to more people with the same amount of funds we spend in any given year, Woodcock said. The savings effected through elimination of waste and duplication and through the development of a reorganized and more rational delivery system provide the keys to the new economies.

In fiscal year 1971, total health care expenditures were upwards of $75 billion, or 7 percent of the Gross National Product, Woodcock stated. This figure compares with $12.1 billion, or 4.6 percent of the Gross National Product in fiscal year 1950. We

spend a larger percentage of our national income for health care than any other nation in the world, he said. Eleven years ago public funds paid 26 percent of all national health care expenditures; today the figure is 37 percent. And the skyrocketing costs show no signs of abating. Last fall the Social Security Administration estimated that by 1975 total national health expenditures would be almost doubled—to $120 billion.

The national Health Security Program does deal with the economic problems, Woodcock said. It rests on prospective annual budgets for the support and compensation of providers. It rationalizes planning and would contain costs within predetermined levels, but without skimping. It would restore health to a high priority activity in our national life.

The program also includes significant provisions to safeguard the quality of care, Woodcock said. It would establish national standards for participating individual and institutional providers. Independent practitioners would be eligible to participate upon meeting licensure and continuing education requirements. Professional review and competent peer judgments would be made to assure a level of service delivery compatible with good medical standards.

Consumer Power

The Health Security Program takes note of the rising voice of consumerism, too, and gives health "power to the people" as opposed to leaving health economics decisions solely to health practitioners. A National Health Security Advisory Council, with a majority of consumer members, will work closely with the proposed Health Security Board in establishing national policy, standards, and operating procedures. In addition, consumer organizations will be given technical and financial assistance to establish their own comprehensive health care programs.

Researchers Investigate Mercury in Human Tissues

The threat of mercury to man may not be as great as is generally believed, according to the results of a study of human tissues by Michigan researchers. Dr. Jack Kevorkian and associates at the Saratoga General Hospital, Detroit, reported that tests on preserved human samples, taken at autopsy from 1913 to 1970, indicated that the total mercury content of most human organs dropped sharply during the 57-year period. They also noted that mercury levels have a biphasic curve throughout a person's lifetime, with peaks in early childhood and middle age.

Various human tissues and organs, taken from 59 bodies, were analyzed for total mercury content, and 10 individual tissue samples were analyzed for methylmercury levels. Methylmercury levels ranged from 0 to 74 percent of total mercury levels, and two or three brain samples showed no methylmercury.

All the samples had been fixed initially in 10 percent formalin solution and stored in 95 percent ethyl alcohol. They represented both males and females, ranging in age from stillborns to 95 years. All available hospital and autopsy records were reviewed to determine place of residence of the deceased (Michigan in every instance) and all medications received during hospitalization.

Although four qualified laboratories performed the analyses on essentially identical tissue samples, they frequently obtained widely divergent results. Nevertheless, even with these limitations, the researchers observed a few coarse but undeniably real trends. They proposed that the sharp drop in total mercury content may reflect a cleansing of the general environment and a dimunition of any pollution threat.

Kevorkian and co-workers concluded that the data obtained in the study answer some questions, raise many others, and point up how little is known about mercury in the human body.

MD Describes an Alternative To National Health Insurance

Citing many imbalances in current plans for national health insurance, with the patient on the short end, Dr. Thomas S. Bodenheimer, San Francisco General Hospital, recommended an alternative to national health insurance—the plan proposed by the Medical Committee for Human Rights (MCHR).

The MCHR plan, according to Bodenheimer, speaks to the needs of the people rather than to the desires of health care providers. It proposes that health care be free of cost at the time service is provided. Financing would come from a national tax on total income and wealth, Bodenheimer explained, with increasing brackets of income and wealth taxed at increasing rates so the rich truly pay their share.

In the MCHR view, profitmaking must be eliminated from health care. It recommends nationalization of drug and medical supply companies, abolition of private insurance, and payment of reasonable salaries to physicians. With the billions saved, many new health workers could be trained and their salaries paid, and thousands of new health centers could be built.

Regarding the control of health care institutions, MCHR envisions a system of local democratic con-

trol over each institution by its patients and by its workers. Money from the national tax would be passed under a per capita formula to elected community-worker neighborhood health councils and to regional councils, composed of local representatives, which plan and administer health care. Thus, said Bodenheimer, control would pass to health consumers and health workers and would be largely decentralized at the neighborhood level.

Under the MCHR plan, different communities would organize their health services according to their particular needs, Bodenheimer pointed out. For example, some might have one-door comprehensive health centers, others might have more decentralized care in small offices, and some neighborhoods might jointly create hospital-based clinics. Patients would be free to seek care in any neighborhood they choose. Primary care would be linked to general hospitals and specialty medical centers for total care.

Bodenheimer listed certain general principles which would apply throughout the health care system under the MCHR proposal. They are: no race, sex, or class discrimination; enough primary physicians to allow everyone a personal physician or health care team; regulation of the geographic distribution of health workers, including physicians; and preferential medical training for minorities, women, and persons in lower economic classes.

Care for All and Local Control Are Free Clinics' Hallmarks

Free clinics, of which there are about 175 in the United States, share two principles of health care delivery: care must be accessible to all patients regardless of ability to pay and the community must control the operation of the clinic. A variety of groups sponsor the dozen clinics in Chicago, about which Irene Turner, former co-chairman, Chicago Chapter, Medical Committee for Human Rights, based her observations. Most of the clinics operate with volunteer staff with lay persons drawn from the community or the clinic's sponsoring organization and professionals drawn from a variety of sources.

The free clinics in Chicago, which have served more than 33,000 people (see table), have had impact not only through direct care provided but through their influence on the planning of new health care facilities. New neighborhood health centers were planned close to the free clinics by the Chicago Board of Health; two of these have opened but are only minimally functional. The board of health plans to offer more ambulatory care centers but realization of these plans has been limited. The clinics do not agree with the board of health that quality of care in board centers is of higher quality than that provided in the free clinics, Turner commented.

The two major problems facing the clinics are scarce funds and staff. The time of volunteer physicians is limited by their training and practice commitments. It is mandatory that a physician be on the premises since the clinics are vulnerable to action by the authorities.

The free clinics feel that they fill a need that has not been filled by other health care institutions, Turner noted. The presence of free clinics should alert health professionals to the concept that the public needs to be involved in health planning and delivery. Unlike hospital outpatient clinics which serve many more people, the free clinics, with their involvement of the community, offer a model for change.

The question of health care financing is of mixed interest to the clinics; Turner holds that the restructuring of health care financing should be as vital to

Registered patients and patient visits in Chicago free clinics

Clinic	Time period (months)	Patients registered [1]	Patients seen in 1 week April 1971
Benito Juarez Peoples Health Center	14	[2] 1,300	N.A.
Community Health Center of Englewood	33	12,000	N.A.
Robert Taylor Homes Health Clinic	34	10,000	50
Young Patriot Uptown Health Services, Inc	22	4,000	N.A.
Spurgeon Jake Winters Free Peoples Medical Care Center	14	1,400	75
Dr. R. E. Betances Health Program	12	1,200	50
Pedro A. Campos Health Center	15	2,000	50
Fritzi Englestein Free Peoples Center	13	1,300	130

[1] Patients visiting the clinic at least once.
[2] Total of 3,000 patient visits.
SOURCES: Vincent K. Pollard: "How Many Patients Do Chicago's Free Clinics Serve?," Chicago Health Research Group, September 1, 1971; The Peoples Health Coalition, February 1970; Chicago Health Struggle, No. 5, August 1971; and personal communication.
NOTE: N.A. Information not available.

the free clinics as it is to others who advocate change. As other changes in health care delivery models are made—such as community health networks and health maintenance organizations—the free clinics with their community experience and base should be involved.

20-Year Survey Shows Health Cases On Appellate Level Up 190 Percent

Though no direct data exist on the actual number and content of health litigations in the United States, information on court cases at the appellate level makes possible a 20-year epidemiologic survey of trends in court cases in health and medical fields.

Dr. H. Bruce Dull, assistant director for programs, Center for Disease Control, Atlanta, Ga., analyzed appellate court decisions between 1950 and 1969 as abstracted in the "Reporter Series" of the West Publishing Company. To be included in the study, cases had to involve medical or osteopathic physicians, dentists, nurses, hospitals, public health departments, or other health-related professional fields. Auxiliary groups were not selected nor were workmen's compensation or other personal injury cases. Appellate court cases give reasonable evidence of trends as a sampling of the scope and content of lower court cases.

Four years were selected for the survey: 1950, 1960, 1965, and 1969. The number of cases approached 400. During the 20 years, there was an increase in health cases of nearly 190 percent. Negligence was the predominant legal theme, although it declined from 88 percent of the health cases in 1950 to 75 percent in 1965 and 1969. The categories of negligence cases for the 4 years are indicated in the table.

The author noted that as negligence declined in importance, theories of strict liability, implied warranty, and informed consent appeared more frequently in appeals. Also, suits contesting medical certification, suitability for practice, and related administrative questions became more common.

Physicians and hospitals were identified as the principal defendants; hospitals were defendants in one-fourth of the cases in each of the years; the proportion of physicians as defendants declined from one-half in 1950 to one-third in the later years. Surgical cases were the most frequent in all 4 years followed by medical cases. Accidents—primarily injuries from falls in hospitals—were reported with more frequency in 1965 and 1969 than in earlier years, Dull stated.

California and New York, because they try large numbers of cases, were additionally surveyed for 1967. In 1950, the two States together comprised 40 percent of the national total; this proportion declined to 20 percent in 1969. Both California and New York may have experienced minor epidemics of health cases in the mid-60's. In the other States these cases may have reached a plateau in 1967 and 1969.

Categories of appellate level negligence cases, selected years, 1950–69

Category of case	Number of cases per year			
	1950	1960	1965	1969
Surgical	25	22	41	48
Medical	11	17	25	38
Dental	1	2	2	5
Immunization	0	3	1	3
Accidents	7	9	27	13
Other	0	5	4	0
Total	44	58	100	107

Dull suggested that the study is intended to show the feasibility of using epidemiology to characterize health litigation and not to identify reasons for the trends. The major limitation to analyzing appellate cases is the judges' case descriptions which deal with facts and legal theories rather than health surveillance. More consistency in describing cases is needed for a useful surveillance of health litigation, according to Dull.

Alcoholism Legislation Opens the Door

The most significant piece of legislation passed in this century to deal with the problem of alcoholism in the United States was signed into law December 31, 1970, said Dr. Morris E. Chafetz, director of the National Institute on Alcohol Abuse and Alcoholism, Health Services and Mental Health Administration. The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970 (Public Law 91–616) was a culmination, but also a beginning, of high hopes and hard work by many people both in the Federal Government and the private sector, he said. The unanimous passage and ultimate signing of this law signaled the growing recognition that alcoholism is a complex medical-social-environmental problem and not criminal or immoral behavior. Such recognition is a landmark development and essential to progress against this problem, he stated.

This act provides for the first time the tools and resources needed to help reduce alcohol-related problems that affect 36 million persons in this country either directly or indirectly, including some 9 million alcoholic persons, Chafetz said. Problems associated with the misuse of alcohol touch almost every element of the nation's economic and social systems. Alcohol is involved in half of the accidents in which

more than 50,000 persons are killed annually on our highways. Approximately 2½ million arrests are related to alcohol every year. And it is estimated that the total economic loss to the nation from alcohol problems is $15 billion annually, he reported.

A significant legislative provision in Public Law 91-616, said Chafetz, is the authorization of $180 million over a 3-year period for a new program of formula grants to the States. To implement this program, the Congress appropriated $30 million for fiscal year 1972. The allocation of these funds will assist the States in planning and establishing more effective prevention, treatment, and rehabilitation programs, he continued. When these funds are apportioned, grants will be made on the basis of population, financial need, and the need for more effective alcoholism services in each State. The Act stipulates that no State is to receive less than $200,000 in any one fiscal year.

To qualify for funds each State must submit a State plan for approval, Chafetz said. These new grants will provide, for the first time, a portion of the funds needed to develop statewide alcoholism activities commensurate with and responsive to the needs of the State's alcoholic populations. In addition to the alcoholism formula grants, each State is required to provide alcoholism services in the administration of Federal funds allocated by section 314(d) of the Public Health Service Act, he stated.

Public Law 91–616 also authorizes additional

funds totaling $120 million over 3 years for grants and contracts to public and private nonprofit agencies, Chafetz noted. Congress appropriated $20 million for this program in 1972. The project grants are specifically aimed at developing demonstration projects, providing education and training, and establishing programs and services for the treatment of alcoholism in cooperation with schools, courts, penal institutions, and other public agencies.

In total, the appropriation for the National Institute on Alcohol Abuse and Alcoholism for fiscal year 1972 was $84.6 million, reported Chafetz. This sixfold budget increase over 1971 signifies a bright new day of hope for alcoholic persons and their families, who have now been given a realistic chance to escape their world of misery, sickness, and despair.

Public Hospitals Bear Onus Of Private Hospital "Rejects"

Although the difficulties of medical care in urban public hospitals for the poor are generally attributed to three basic causes—history, financing, and politics—Dr. Milton I. Roemer and Dr. Jorge A. Mera took voluntary hospitals to task for a fourth, seldom-mentioned factor—"patient dumping." This, they explained, is the rejection by voluntary community hospitals of outpatients considered "undesirable." Such patients are sent to public hospitals.

Roemer and Mera, who are with the University of California at Los Angeles School of Public Health, told of one public institution in California in which the outpatient department staff keeps an "atrocity book" listing the serious or tragic conditions of patients rejected by and transferred from voluntary hospitals. Among these conditions are alcoholism, drug abuse, attempted suicide, trauma, mental disorders, incomplete abortion, and infectious diseases. The pátients sent from the voluntary to the public hospitals are the poor, the aged, the black, and the socially deviant, they said.

Thus, in the authors' words, the plight of the public hospitals, as reflected in their heavy outpatient burdens, must be traced at least partly to rejection of social responsibilities by voluntary hospitals.

To determine the extent of patient dumping with respect to ambulatory care, Roemer and Mera analyzed hospital outpatient data for 1969 from 33 counties in 21 States. Each county has one or more urban public hospitals for the poor as well as numerous voluntary hospitals.

For each county, the data on outpatient services were tabulated separately for public hospitals and voluntary general hospitals. In all 33 counties, the ratio of outpatient services to admissions was much higher for the public than for the voluntary hospitals, the authors reported. The overall average for the voluntary hospitals was 2.80 outpatient department visits per in-patient admission per year in contrast to 12.67 visits for the public hospitals.

Discussing solutions for reducing the plight of the public hospitals and improving the health of the poor, Roemer and Mera suggested that voluntary hospitals could show more willingness to assume a greater share of the community burden. They pointed out that it took a crisis in Chicago's Cook County Hospital to lead 45 other hospitals in that county to set aside beds for the indigent, even when a public agency would pay the costs.

Existing requirements of State and Federal law on voluntary hospital obligations to serve the poor ought to be enforced, the authors recommended. The tax exemption of nonprofit hospitals is based largely on the legal assumption that they provide charitable services. The Hill-Burton Act requires that any hospital receiving a Federal construction subsidy shall in the future "make a reasonable volume of services available at no charge or at reduced cost to persons unable to pay for them." Despite this requirement, some voluntary hospitals which have received Hill-Burton grants have refused to accept poor patients, even when they had been turned away from their State's "charity hospitals" because these were filled to capacity.

Roemer and Mera remarked that in many contexts private organizations, proprietary or nonprofit, are able to do relatively high-quality work only because in some way they have rejected the "tough problem cases," which are pushed onto the backs of public agencies. They also challenged the hackneyed charges about government inefficiencies and private business know-how. In their words, it ill behooves the spokesmen of free enterprise to criticize government for its failings—when these have been caused or at least aggravated by the buck-passing of the private sector.

Clinic Self-Evaluation Enhances Efficiency

Evaluation of a large and complex health clinic can be accomplished and positive results can be achieved when the information gathered is analyzed and corrective actions taken. This was the conclusion of Dr. Philip Ambuel, professor, Department of Pediatrics, Ohio State University College of Medicine, and his associates, in a report of the evaluation study of the Evening Health Assessment Clinic at Columbus Children's Hospital.

The methods used for the study, undertaken to

determine how efficiency and effectiveness of health service delivery could be improved, were developed by health systems engineers from Westinghouse Electric Corporation under the direction of Dr. Neil H. Sims of the Johns Hopkins University School of Medicine.

The study began with a documentation of the clinic operation in which five physicians work 1 night a week and see an average of 11 patients per session. The setting of objectives and the relative importance of each was done in group sessions of key medical and administrative staff. Final ratings of the prime objectives for the clinic gave the following ratings on a scale of 0 to 100:

1. Providing comprehensive health care 87
2. Education of and redefining the role of the health professional 90
3. Broadening medical student's educational and social perspectives 100
4. Providing a setting for clinical research and research in the delivery and administration of ambulatory health care 78
5. Accomplishing all objectives in the most efficient and economical manner 70

To determine how closely activities in the clinic related to the objectives, a measurement of patient flow was taken and work sampling of each worker was done throughout the clinic period. A total of 2,244 samples were recorded to enable a high confidence level for statistical validity.

Physicians and students were interviewed to determine quality of the educational experience. Patients were interviewed to determine their degree of satisfaction with the care received, knowledge of their illness, knowledge of type of medicine prescribed and how to take it, amount of health education received, and other related items. Records were screened for completeness and accuracy and to determine extent of screening and preventive procedures. Also checked were immunizations, tuberculin testing, and followup.

A study of the data permitted changes in the operation of the clinic, Ambuel said. The number of medical students was cut from four to two per session, reducing the number of patients seen out of sequence and therefore reducing the waiting time. Patient appointments were spread out over the length of the clinic session, and patients were educated to the advantages of arriving on time. A clinic clerk was employed for followup appointments and to assist with patients. A 44 percent broken appointment rate worked against the objective of comprehensive health care. The results of the study were shared with clinic staff, educating all to the philosophy of the clinic and identifying problems and directions to take in solving them.

As a result of the changes, patient waiting time was reduced and staff time was more effectively utilized. The following are the results of the work sampling studies and patient flow.

Work sampling	*Before changes (percent)*	*After changes (percent)*
Physician:		
Assigned functions	83	88
Unassigned functions	3	.....
Inactive (idle time 0.7 percent, not yet arrived 11.4 percent)	14	12
Medical students:		
Assigned functions	72	84
Unassigned functions	.....	1
Inactive (location unknown 1.9 percent, idle time 9.7 percent, not yet arrived 3.9 percent)	28	15
Nurses:		
Assigned functions	85	85
Unassigned functions	2	6
Inactive (location unknown 1.2 percent, idle time 5.2 percent, not yet arrived 2.4 percent)	13	9
Clinic clerk:		
Assigned functions	.....	80
Unassigned functions	.....	5
Inactive (location unknown 1.7 percent, idle time 11.4 percent, not yet arrived 1.7)	.....	15

Patient flow analysis before the changes in clinic operation showed a mean total visit time of 124 minutes of which 68 minutes were waiting time. After the changes waiting time was reduced to 51 minutes, with a total mean service time of 95 minutes.

	Service		*Wait*	
Patient activity	*Before changes*	*After changes*	*Before*	*After*
Registration	3	1	3	2
Administrative interview	20	16	14	21
Height, weight, temperature	4	4	22	13
Student interview	26	26	17	14
Speech and hearing	3	15	.....	15
Examination by physician	11	9	43	20
Registered nurse's time	4	6	8	10
Laboratory, X-ray, other	10	7	20	9
Cashier	.....		6	6
Miscellaneous time	5	5	10	12

The authors pointed out that evaluation through work sampling and analysis of patient flow clearly makes possible an increase in efficiency and yields a better understanding of the operation. Although measurement of quality of health care or quality of education is more difficult and complex, the rating scales do provide some measure of quality and can help to maintain quality while increasing

efficiency. They also suggested that these and similar evaluation techniques should become a part of ongoing administrative procedure.

Mental Health Care Integrated With Primary Medical System

The Roxbury Comprehensive Community Health Center, Boston, Mass., is integrating mental health care with its principal health care programs. According to Dr. Richard G. Morrill, chief of the center's mental health services, integration of these programs has long been needed. Most current mental health programs provide backup care rather than primary mental health care. They use only part-time consultants or, if they have full-time inside staff, the staff are isolated from the other health care staff. In general, mental health disciplines have surprisingly ignored the great advantages in working through the new comprehensive neighborhood health centers rather than the more isolated community mental health centers.

Morrill stated that the mental, physical, and social difficulties of a family needed to be integrated in a new comprehensive approach to health services. The Roxbury center has been organized to implement this new community approach to prevention and treatment of illnesses. The mental health program at the center is funded by the Office of Economic Opportunity and is operated by the Boston University Medical School under a community policymaking board.

Principles Help Integrate

Morrill listed six basic principles in the process of being implemented at the center that help the mental health staff become a functional part of the primary health care system.

1. The mental health staff person is a full working member of the family health care team. The team is a small interdisciplinary group of nurses, physicians, social workers, mental health professionals, community health workers, and backup staff who work in one building or catchment area. They meet frequently to discuss their work with families and to listen to each other and to develop a family health care plan. Morrill commented that the team approach greatly increases the effectiveness of the mental health program by giving the mental health staff closer contact with other staff and exposures to information on the family they had not previously heard.

2. If the mental health staff is "regionalized" (by creating catchment areas for community health centers), staff responsibility is clear cut, the delegation of authority attracts better staff, and the mental health staff member has a much greater opportunity to be familiar with the team "style" and with staff strengths and weaknesses. He identifies with the team as his reference group which aids rapport and earlier patient referral. Morrill said that this approach creates healthier and more mature communication and working relationships between members of the team.

Staff of Roxbury center shares information about patients

3. The mental health staff should be housed with other members of the family health care team, Morrill asserted. The simple fact of proximity improves informal communication, creates better working relationships, and increases group identification.

4. The "new professional" community mental health worker is a team member. He functions as a family advocate and is supervised by the team mental health professional. (At the Roxbury center, this worker is given training and college credit in mental health in a joint program of Boston University and the Sargent College of Allied Health Professions.) The team's mental health professional may be a psychiatrist, a psychologist, a psychiatric nurse, or a psychiatric social worker.

Morrill emphasized the disadvantages of hiring mental health staff for less than three-quarters time. Other staff have difficulty reaching them to communicate about families, and patients can contact them only on certain days, thus weakening continuity of care.

5. Both for reasons of improved acceptability and

economy, it has become evident that the physician, nurse, and health worker have an important role in detecting and treating emotional illness. Morrill said that the mental health staff must help other staff develop this facet of their approach to patients.

6. The most definitive primary mental health care is more effectively carried out at a community site, according to Morrill. If therapies—for crises, short-term, groups, drug, couples, and family—and the intermittent supportive care of adults and children are carried out at the health center and not at a distant central psychiatric clinic, patients accept the service more readily because there is less transfer between therapists, less travel, less stigmatization of services, and better communication with other staff.

Director Coordinates Activities

A department within the neighborhood health center, headed by a director of mental health services, carries out the functions of coordinating and sharing information by the mental health staff on the various family health care teams. The staff also coordinates its activities with those of the health center's administration and other disciplines, staff participation in backup programs, and use of services of the Boston University departments of psychiatry and community medicine.

Specialized or centerwide backup programs developed by the staff of the department include a child activities group program, ex-addict drug counseling, a school mental health team, adolescent groups, and volunteer child placements. The programs serve all teams. The staff of the department organizes community mental health education conferences for other staff and provides school and agency consultation services.

Mental health and social service departments need a close working relationship because large areas of services overlap and may be duplicated, Morrill stated. At the Roxbury center a joint intake conference reviews the contribution of both services to each family, and a common plan is formulated for review by both staffs.

Staff and Community Benefit

At the center each mental health professional and the community mental health worker is responsible for all the mental health care of his team's families. The mental health staff sees both adults and children in a variety of diagnostic and therapeutic roles, referring certain patients to central services for long-term intensive psychotherapy, day hospital, inpatient care, drug withdrawal, and halfway houses.

Morrill stated that the relationship with the community is considerably enhanced by the existence of the community board. It has helped to reduce the stigma associated with psychiatric care, which is especially helpful when treating men. Many self-referrals are occurring through word-of-mouth from patients and community staff.

FDA Moves on Guidelines And Labeling of Fat Content

The Food and Drug Administration is expanding its activities to improve the nutritional quality of foods. Dr. Allan Forbes, deputy director, Division of Nutrition, FDA, identified two reasons for the expansion. The first of these is an increase of processed, synthetic, and fortified foods; more than 35 percent of all meals are not eaten at home, and about 55 percent of American consumers' meals are fully prepared outside the home. These changes necessitate more active scrutiny over the nutritional quality of such foods. The second is an awareness of nutritional deficiencies among the people of the United States based on nutrition surveys, infant mortality due to maternal malnutrition, and food fadism.

One of the major efforts of the Food and Drug Administration is to establish nutritional guidelines for specific classes of foods. The first guideline is for frozen convenience dinners, with formulated main dishes, breakfast cereals, snack foods, meal replacements, fruit juice drinks, and products containing meat analogs to follow. Minimum and maximum nutrient values will be set forth based on caloric contribution of foods to the total diet, Forbes said.

A second new effort is nutrient labeling, based on the concept of communicating to consumers the nutritive value of a serving of food. Three approaches are being tried. One uses actual nutrient quantity, a second uses a numerical rating scale in which 10 units equal its Recommended Dietary Allowance, and the third uses descriptive adjectives such as "an excellent source." Evaluation will permit selection of the most useful approach to informing the shopper. By the end of 1972 through the mechanism of a Statement of Policy, a broad nutrient labeling program should be in operation, according to Forbes.

Two proposed regulations regarding fat labeling were published in the Federal Register on June 15, 1971, which may become policy. One would require identification of fat sources and whether or not the fat has been hydrogenated. The second would require a statement of the caloric content of a serving, the percent fat, and the percents of polyunsaturated and saturated fatty acids. These steps would aid physicians and consumers in formulating special modified fat diets.

Another new regulation requires identification of iodine in table salt to encourage the consumer to buy

iodized salt. Iodine will be identified as a necessary nutrient which should reduce random buying of table salt and reduce rejection of iodized salt because it contains a chemical. This regulation was in response to an increased prevalence of goiter which appeared in the 10-State nutrition survey, Forbes reported.

To help reduce iron deficiency anemia, the Food and Drug Administration is recommending a change in the Standards of Identity for enriched wheat flour, bread, buns, and rolls which would increase the present levels of iron enrichment about 2½ times. Studies will be made to determine whether the increased enrichment will reduce anemia. The Administration has already published a regulation to increase iron in infant formulas.

Finally, said Forbes, the whole subject of dietary supplements, such as vitamins sold over-the-counter, is under study, and a proposed regulation is being developed which would protect the public from imbalances in supplements, adopt the Recommended Dietary Allowances of the Food and Nutrition Board as the standards, replacing the Minimum Daily Requirements, and require expiration dating.

An Alcoholism Program In a Mental Health Center

Recognizing that the "alcoholic population" in any community consists of a large variety of subgroups with many different problems underlying, or second to, their dependency on alcohol, Dr. Eric W. Fine cautioned that no particular treatment approach is applicable to all these groups. The key to successful treatment and rehabilitation of alcoholics lies in a flexible and comprehensive program, he feels.

Fine, who is director of the alcoholism program, West Philadelphia Community Mental Health Consortium, said that his program was organized on a comprehensive basis. Services include detoxification; in-patient, outpatient, and intermediate care; and consultation and education service.

Before the alcoholism program was started, the consortium had been providing a wide range of mental health services for 4 years. Thus, said Fine, the program had the advantage of several established and integrated mental health services in addition to the cooperation of the departments of community medicine and psychiatry of the University of Pennsylvania.

Outpatient services of the alcoholism program are carried out in seven counseling centers, strategically located in the consortium's catchment area. In each of the centers an alcoholism counselor, under professional supervision, is responsible for the continuing care of a caseload of alcoholics and their families. An important part of the counselor's work, Fine said, is in "outreach" activities during which a portion of their time is spent in the community—contacting interested community groups and visiting families of patients.

Hospitalized patients receive group and individual therapy, social evaluation, rehabilitation counseling, and drug therapy (including Antabuse) when indicated. They are visited by the counselors who will be responsible for their support in the community after discharge.

Philadelphia General Hospital has a 24-hour emergency service for alcoholics. Sources of referral to the various elements of the alcoholism program are made clear to the staff, Fine pointed out. Patients are examined on admission by an intern or resident to rule out serious organic disorder, and then they are evaluated by a psychiatrist and a counselor when appropriate referral is made.

Detoxification patients are registered in the alcoholism program and followed up to insure ongoing treatment after hospitalization. Fine emphasized that merely giving alcoholic patients appointments for therapy sessions is inadequate; for most patients, a more personalized referral system is necessary.

To complement the program's services, an intermediate care residential facility is being developed, Fine reported. This facility will provide a more protective type of care for 12–15 patients during their transition from hospital to community living. Although no limit will be placed on length of stay, the ultimate goal will be the return of self-supporting persons to the community.

Fine advised planners of an alcoholism program that the rejecting and moralistic attitude toward alcoholism by large segments of the community and by many professionals can be modified by obtaining community support for the alcoholism treatment facility and by involving professionals from all disciplines in a viable program with realistic treatment goals.

Newly Reported Drug Addicts Are Younger Since 1968

The expanding addict population of New York City and the increasing number of deaths associated with the abuse of narcotics have caused justifiable concern, said Dr. Jane McCusker, Columbia School of Public Health and Administrative Medicine, and associates. Data from the city's Narcotics Register indicate that the newly reported addict is younger than in previous years, they said and, although the majority still claim residence in Manhattan, a gradual shift has occurred to other boroughs of New York City.

The main sources of data on mortality associated with narcotic addiction in New York City are the Narcotics Register, a cumulative register based on mandatory reports received from the New York City Police Department, hospitals, private physicians, and various social agencies; and the Office of the Chief Medical Examiner, which is officially notified of all deaths of narcotic addicts and performs the autopsies.

A study by McCusker and associates also shows that between 1964 and 1969 the age distribution of deaths changed (see chart). The percentage of deaths occurring in the under-25-year age group approximately doubled, with the result that in 1969 most deaths occurred in this age group.

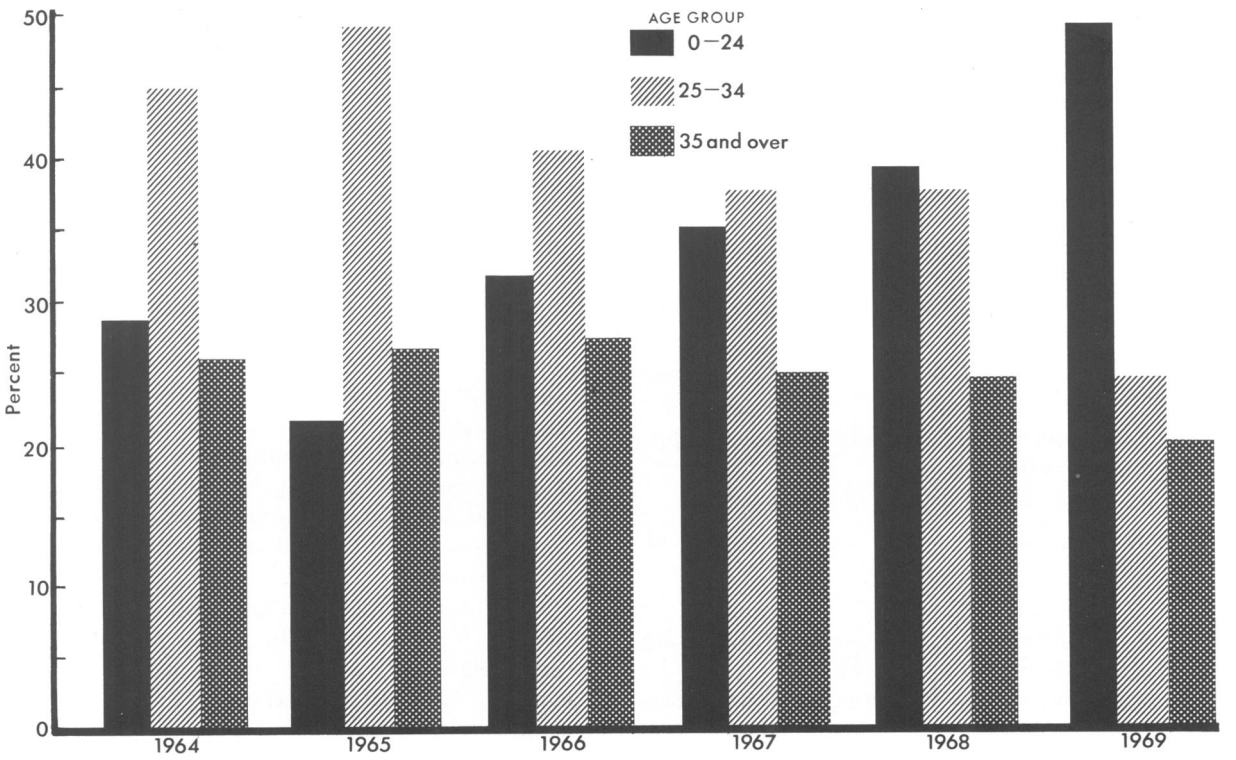
Death certificates showed that 80 percent of the deaths in 1967 had been attributed to "narcotism," stated McCusker and co-workers. The mechanism of death in these cases is unknown; the category is of particular interest because it comprises about 78 percent of the deaths of addicts in the city. In the vast majority of these deaths there was a recent intravenous injection with apparent sudden collapse. Frequent evidence of pulmonary edema was noted; thus an acute reaction to injected material is probable. There was a marked seasonal variation in narcotism deaths, reaching a peak during the summer months, and not in other causes of death of addicts. There also was a similar summer peak in hepatitis cases in addicts, hospitalized cases of cellulitis in addicts, and in nonfatal "overdoses" of drugs. Total reports of addicts were noted to be higher in the second half of the year.

Of the 1967 sample, 85 percent of those who died were male and 15 percent were female. Their ages ranged from 15 to 66, with a mean of 28.3 years. The male age distribution peaked in the 20- to 24-year-age group, while distribution for females showed a plateau from 20 through 39 years. Half of the deaths were of black addicts; 28 percent, Puerto Rican; 16 percent, white; and for 5 percent, ethnic group was unknown. The age distribution of deaths was roughly similar for whites and Puerto Ricans; blacks tended to be several years older, the authors reported.

Demographic characteristics of narcotism deaths were similar to the total addict population known to the Narcotics Register, suggesting that there are no especially high risk groups among addicts for this cause of death; in contrast, deaths due to trauma and infections were more common among older addicts.

The investigators concluded that the main cause of death in narcotic addicts in New York City is an idiosyncratic reaction to an intravenous injection of unspecified material and probably not an overdose of narcotics. Further, there possibly is an increased

Percentage of deaths in three age groups associated with narcotic addiction, New York City Narcotics Register, 1964-69



amount of activity during the summer—to explain the summer peak of overdoses, narcotism deaths, and hospital admissions with hepatitis and cellulitis.

Connecticut Hospital Takes On Nontraditional Projects

How Griffiin Hospital, Derby, Conn., assumed the responsibilities of a public health department and, following a demonstration project in health education, now operates in nontraditional areas was chronicled by Richard K. Conant, Jr., A.C.S.W., director of the hospital's department of community health, and co-workers.

The 260-bed general hospital is the primary medical facility in the lower Naugatuck Valley where 75,000 persons live. None of the valley's five communities has a full-time public health officer.

A 3-year grant for the project made it possible for the hospital to move into joint planning between its personnel and community groups and to improve early detection, treatment, and rehabilitation of the chronically ill. When the grant was terminated, a department of community health that incorporated social services was created. It had the strong backing of the hospital trustees.

Patients participated in the information gathering stage, a necessary prelude to setting goals for the project. Meetings of mixed groups of selected patients, hospital professionals, and professionals from community agencies were particularly successful. All these patients had two admissions for the same diagnosis, or multiple admissions for a chronic condition, or were admitted with an obviously chronic condition. The 10-week series of meetings gave the project its direction.

Conant and co-workers listed 15 activities as typical of those in which the department has participated:

Screening all patients for discharge planning

Planning in behalf of patients

Establishment of a community council for health and welfare planning

Producing a directory of health, welfare, educational, and recreational resources

Educational programs for patients (diabetics, colostomy care, catheter care)

Drug education program for local school systems

Assistance to Daytop, a self-help community of ex-addicts

Assistance to a child day care center

Proposed and planned a transportation system to bring the ill and elderly to medical facilities

Brought together a committee on extended care facilities

Assist Alcoholics Anonymous in a hospital program for alcoholics

Cooperate in annual influenza immunizations for the elderly

Study of health, housing, and jobs in a depressed area

Reorientation of the hospital's emergency services to give primary care in addition to care for accidents

Catalyst for a patient education committee of the Connecticut Hospital Association.

The authors' description of several of these activities indicates the flexibility of the department of community health. A health planning committee resulted from discussions among the local United Fund officials, hospital staff, and the South Central Comprehensive Health Planning Agency, which operates in a 20-town area. This led to the formation of a health planning council (funded under P.L. 314-B) for the five towns within the larger agency and a community council. Many community expectations for Griffin Hospital can now be shared or placed in the hands of the council, the authors noted, such as the council-led efforts to establish a regional public health department for the five-town area and an areawide study of home health services.

A second project of the department of community health was the design of a transportation plan in the valley for the ill and elderly. After failing to obtain funding for a Federal grant, the Valley Regional Planning Agency volunteered to take up the proposals and concept developed by the hospital. With a $450,000 grant from the Office of Mass Transport, U.S. Department of Transportation, a system using minibuses to transport the elderly is being drawn up. Vehicle design will be tested as well as a system that meets health needs on a demand (door to door) schedule and on a charter basis. The hospital has offered space for the operation to be run by a transportation commission.

Conant and co-workers also discussed the drug education program. It started with a request from school superintendents for help in combating drug abuse among students. The department of community health gave sensitivity training to a pilot group of students and to high school teachers who would lead small, nondirective discussion groups of students. The department supervised teachers as they worked with students, evaluated the program, and made recommendations to the schools. While the results are incomplete, the group process appeared to raise the level of students' self-esteem so that drug abuse declined.

The authors outlined the discharge planning functions in the department. In 1 year 1,000 patients were selected for casework, or 12 percent of those admitted. Their median stay was 14 days, and discharge planning began before the third day of their

stay. Sources of referrals for discharge planning were as follows:

Sources of referrals	*Number of patients*
Department of community health staff	490
Hospital registered nurses	96
Physicians	305
Patient's family	42
Community agency	19
Other	46
Total	998

Staff nurses, while closest to the patients, initiated the fewest referrals of the professional group, the authors noted.

As to disposition of patients, almost half needed the post hospital services of a variety of community agencies. In addition, 210 were referred to extended care facilities, 163 to a specialized institution, 46 to the homemaker service, 71 died during hospitalization, and 7 were referred to other agencies or services.

An estimated 1 to 2 days of hospital stay was saved by the early discharge planning for the majority of patients, according to the authors. Further prehospital discharge planning is indicated in some cases.

The project's budget varied over the 3 to 4 years, but the Federal grant for direct expenses was $175,000. At the close of the project, the hospital picked up the costs of the department budget of $75,000 funded through traditional hospital sources.

During the lifetime of the project, special services were added such as drug education that were funded by agencies receiving these services.

Parents of Chronically Ill Children Need Genetic Counseling

Services for children with chronic conditions are not complete without genetic counseling for the parents, in the opinion of Dr. Harry A. Sultz, State University of New York School of Medicine, and co-authors. Their conclusion was drawn from the findings of an epidemiologic study of 70 chronic childhood conditions among children in Erie County. The study included an in-depth interview of mothers of a sample of 391 children with chronic conditions.

The effect of a chronically ill child on family size was investigated by using the data obtained in the interviews. A sample of 291 mothers of children with chronic conditions was matched with 291 control mothers according to the age of the sample mother at the time of birth of the ill child and the order of that birth in the family.

For the analysis, the authors reported, the period before the parents were advised of the diagnosis of the condition was regarded as beginning with the birth of the chronically ill child and ending 1 year after the date of diagnosis. This allowed inclusion in the study of other children conceived before, but delivered after, the diagnosis was made.

According to the authors, the only significant differences observed in the fertility rates (the number of births per 1,000 person-years during the study period after the birth of a chronically ill child) between the mothers of affected children and the mothers of healthy children were for the few sample mothers who had received family counseling services and for those who had at least two children with the same chronic condition. They noted, however, that at the time of the study no genetic counseling services were readily available in Erie County, and that the program of the voluntary agency offering family planning service was limited in scope.

The findings suggested that chronically ill children are counted along with healthy, viable children in family size aspirations and that parents do not see having an additional child as compensation for a chronically ill child, the authors said. Furthermore, regardless of socioeconomic class, birth order of the chronically ill child, religion, burden of care, and the hereditary nature of the condition, the parents continue to have children, whether purposefully or unplanned, as do parents of normal children. However, Sultz and co-authors saw a strong indication that this would not be so if parents were advised of the probability of transmission of genetic defects and effective techniques for prevention of pregnancy.

FDA Seeks to Inform Public On Radiation Hazards

The Food and Drug Administration now has the responsibility of protecting consumers from radiation hazards, but the consuming public also needs to be informed, stated FDA consumer specialist Diane Place and co-workers. They cited color television sets, microwave ovens, and diagnostic X-rays as the major areas of concern to consumers and described FDA efforts to protect and inform the public.

All television sets manufactured after January 15, 1970, must have tags or labels on the back certifying that they meet Federal standards. Consumers should check sets for this certification. The primary cause of excessive radiation from TV sets is higher operating voltages than the manufacturers recommend. The higher levels are usually set to brighten the picture. A recently marketed TV X-ray detector makes it easy for a trained serviceman to

identify sets emitting excessive radiation but, the authors cautioned, some do-it-yourself devices may not detect radiation from all parts of the set.

By 1975, it is estimated that 25 percent of all ovens bought in this country will be microwave ovens, and housewives, vending machine users, and food service employees in fast food restuarants are affected by the 100,000 already in service. A Government standard for microwave ovens became necessary after surveys in 1968 showed that 20 to 30 percent of the ovens tested emitted radiation in excess of industry standards, the authors said. The radiation production standards issued under the Radiation Control for Health and Safety Act require that ovens manufactured after October 6, 1971, not emit radiation in excess of 1 milliwatt per square centimeter before sale and no more than 5 milliwatts per square centimeter throughout the oven's life.

The standard also provides that oven doors must have at least two independently operated safety interlocks to shut off radiation when the doors are open. All ovens in compliance with Federal standards will have a certification tag or a label, and consumers should look for this.

Diagnostic X-rays are the source of the greatest (95 percent) of man-made exposures in the United States; in 1970, about 55 percent of the U.S. population had one or more X-rays. The FDA's Bureau of Radiological Health and the American College of Radiology has therefore launched an information and education program for professionals, Place and coworkers reported.

A booklet, "X-ray—Examinations. . . . A Guide to Good Practice," was mailed to 300,000 practicing physicians in addition to medical students, podiatrists, veterinarians, and radiologic technicians. It urges physicians to weigh possible effects of X-rays on the patient and to consider and reconsider the need for this diagnostic tool. It has been scientifically determined that two-thirds of the current exposure may be unnecessary, since it does not contribute to diagnosis. Beam restrictions, filters, and shields have been designed and should be used to reduce exposure, the authors declared.

National Health Insurance—A Partnership Plan

The goals of the National Health Insurance proposals of President Nixon and Senator Kennedy are the same, according to Under Secretary John G. Veneman of the Department of Health, Education, and Welfare. The difference, he went on, lies in the method of achieving these goals. President Nixon seeks a partnership plan to complete the existing structure of private and public financing. This plan aims at closing existing gaps—coverage for the working poor, coverage for catastrophy, and coverage for basic health services.

Two major insurance packages would provide that protection, Veneman said. The Family Health Insurance Plan would cover the poor and working poor. Families of four with incomes of less than $3,000 would have their premiums paid in full. As their incomes rise, they would begin to pay part of the premium. This plan would eliminate the cutoff that occurs under Medicaid, and it meshes with the President's plan for welfare reform.

The other part of the partnership, the National Health Insurance Standards Act, is designed for middle-income Americans with gaps in coverage. Under this act, employers would be required to provide a health insurance policy for employees. Employers would pay 65 percent of the cost until 1976 and 75 percent of the cost after that. The cost of catastrophic illness up to $50,000 would be covered for every family. A basic range of health services would be covered.

The freedom of unions and management to negotiate for health benefits would be preserved by this plan. Co-insurance and deductibles as well as coverage above the basic floor would be areas for discussion under union contracts.

The law additionally would provide for fair pricing, reputable participating insurance companies, and cost and quality controls. Policyholders would have a choice between care based on fee-for-service or a prepaid capitation plan.

The President's plan offers comprehensiveness, preservation of choice and diversity, and fiscal control and balance, the Under Secretary noted.

The Health Security Act would federalize the

health insurance industry as contrasted with the President's partnership plan. Rather than filling in gaps in the existing structure, the act would create an expensive new structure, Veneman stated.

The cost of the Health Security Act, he said, would be $7 billion more than the President's plan in the first year, and it would rise as demands on the health care system grow. Federal sources of revenue would have to be raised continually to meet medical care costs totaling one-fourth of all taxes. And the new sources of health care dollars would assure further inflation.

Balance Needed

Veneman pointed out that basic human needs must be met in addition to health care. These needs can be subverted if too much goes too soon into health care. These human needs also affect health—better schools and more housing, cleaner air and water, good sanitation systems, safe highways and working environments, and help to the poor to lift themselves out of poverty.

There comes a point when spending on health care would not improve health, and the Health Security Act goes beyond that point. The President's plan seeks to balance priorities; the Health Security Act does not, said Veneman.

The U.S. Position On Global Environment

For the first time in history, all members of the United Nations will meet to discuss the global environment. The Conference on Human Environment will be held in Stockholm in June 1972. Jay H. Blowers, Office of Environmental Affairs, U.S. Department of State, outlined the following issues which the United States considers its high-priority objectives to improve the global environment and which are in the U.S. interest.

1. A declaration on the human environment is needed which would set forth the essential facts of the environmental challenge, mankind's aspirations for a better environment, and basic norms for principles of conduct. Most important in the declaration, Blowers pointed out, are the following three elements: recognition of man's right to an environment in which he may live with dignity and well-being; responsibility of States to protect the environment within as well as outside their borders; and that protection of the environment is essential to sound development.

2. Concerning marine pollution, the United States proposes that the conference adopt a set of principles and possibly a master plan of recommendations to regulate pollution of the oceans. It further proposes that action be taken at Stockholm on specific agreements, especially a convention to control ocean dumping.

3. Concerning environmental monitoring, the United States supports action at the conference toward development of a global monitoring system covering the atmospheric, terrestrial, oceanic, and environmental health sectors. This system, Blowers said, should tie in with existing national and international systems.

4. Since most of the problems concerning human settlements can be dealt with only at a national level, the United States proposes that emphasis should be on research, information exchange, and comprehensive planning.

5. Highest priorities for natural resources should go to rational management of such resources, to preservation of genetic stocks and appropriate natural areas, and to soil conservation.

6. For environmental education, the United States believes the primary responsibility rests with national governments.

7. Regarding pollutant release limits, the United States favors international agreement on criteria as a basis for national standards. And, in certain basic fields such as food and drinking water, efforts should be made to achieve international standards.

8. In the field of conservation, the United States supports the conclusion of a convention establishing a World Heritage Trust for the preservation of unique natural, cultural, and historic sites. It is hoped that the conferees will agree on a variety of other conservation matters, including preservation of endangered species.

9. Regarding the relation between economic development and environment, the United States particularly endorses the view that the problems of human environment are not incompatible with development; they are an integral part of the economic and social development process.

10. In many instances the most effective environmental work can be done on a regional basis. The United States urges maximum encouragement of indigenous regional offices.

Confession Magazine Designed To Encourage Birth Control

True to Life, an apparently successful confession-type magazine, is designed for use by post partum patients of Grady Memorial Hospital, Atlanta, Ga., and other working-class women in their reproductive years. Its purpose is to resolve the problems of contraceptive continuation rather than its acceptance.

Marjorie M. Crow and co-workers of the Emory University Family Planning Program described the magazine as a new, unconventional method of patient education. It uses an approach which recognizes the emotional components of human behavior and employs appropriate advertising principles to meet the patients' perceived need to (*a*) continue birth control and (*b*) obtain answers to questions about sex, birth control, morality, and interpersonal relations.

The average woman served by Emory's family planning clinic is of low income and 22.3 years old. She has completed 11.4 years of school and has 2.1 living children. Ninety-five percent of the women who attend the clinic elect to receive a method of birth control. Of these, 55 percent do not return after their first visit, the authors said.

Description, Cost, and Distribution

True to Life is a 32-page pulp magazine which contains six stories, three feature columns, one graphic feature, and two public service ads. It is characterized by dramatic titles, titillating photographs, and personal advice columns. Crow and co-

MAMA MADE ME DO IT—

but she wouldn't tell me why!!!

It is early morning, my favorite time of day now. I come sit out on the front porch. I drink a cup of coffee. And I think about the baby I am carrying. My husband, Dan, has just left for work. I think about him too. I'm very happy these days. I look forward to my baby being born. Dan and I will feel like a real family then.

I look back too. My life hasn't been all roses. But I have learned along the way. I remember when I was a teenager. It seems like ages ago, but it's only a couple of years. I remember how excited I was to turn sixteen. On my birthday, I cut my hair and started curling it a new way. I felt a lot older. I decided, as I had every other year, that now I was really a woman. But it was only after all the heartbreak of that year that I felt like a woman. . . I want to tell you about it. Maybe it will help you, if you are a teenager. . .

To begin with, I had a boyfriend. His name was Ernie and he was eighteen, two years older than me. I remember the first time he spoke to me. . .

One day after school I missed my bus. I decided to sit and wait out in front of the high school until I got a ride. It was a cold day. I was huddled up under a tree in my big fuzzy coat. Ernie walked up, "What's this?" he said, "A big rabbit? I giggled. He sat down beside me. "Lily-" he said, "Lily Flowers - what a funny name." I was surprised Ernie knew my name. I knew who he was though. I had asked someone. Ernie was not very tall, But he had a beautiful body, warm brown eyes, and wonderful curly hair. I was so excited, I blurted out, "I know your name too - Ernie Haygood." "That's great," he said. And he looked into my eyes, smiling, as if he knew everything about me. "Lily, I like your eyes," he said softly.

So that was the beginning. After a while, Ernie and I were together almost all the time. I was on cloud nine. But Mama wasn't. She didn't like Ernie. When I brought him home, she was unfriendly to him. Finally, I stopped bringing Ernie home. And I spent a lot of time out.

Mama got suspicious. "Don't you think you're making a fool of yourself over him, Lily? You're just all over him - you know boys like girls who hold themselves back." She always waited up. She would glare at me when I walked in.

I began to believe Mama hated me. And I couldn't understand it. When I was a little girl, Mama had spent a lot of time with me. She had been lonely. My Dad had been killed in a terrible car accident. I couldn't remember him at all. But she told me over and over that she had worshipped the ground he walked on. And she told me how it would have

A page from True to Life

workers said that the magazine's first-person stories are about characters with whom the readers can have a healthy identification and whose development reveals moral and intellectual strengths which allow them to resolve their problems.

The problems discussed are lack of communication and honesty between generations, loneliness and search for affection, emotional dependency, lack of honesty with oneself, manipulation of others for personal ego gain, adjustment to death, and fears of sexual inadequacy.

With three physicians serving as consultants on medical information, stories and articles were written by students and staff. Staff cooperation and donated services held the cost of the first 8,000 copies in September 1970 to only $9,451. The second issue was 30,000 copies and was printed in September 1972, Emory's reporters stated. Distribution has included public high schools; OEO Centers; post partum wards; VISTA Programs; Planned Parenthood centers and health facilities in the United States and several foreign countries; classes in sociology, public health, communications, and psychiatry; adolescent pregnancy programs and Florence Crittenton homes; and other health, social, and educational agencies.

Readers and Their Evaluation

Initial evaluation of the magazine included interviews with 151 women at Grady Memorial Hospital. They received copies 1 to 2 days post partum and were interviewed before leaving the hospital. The age range of respondents was 17–47 years, with a median of 21.9 years; the range in number of living children was zero to nine, with a median of two to three; and the range in years of completed education was up to 15 years, with a median of 11.1 years.

Eighty-nine percent of the respondents said they thought "the stories tell it pretty much like it is," 95 percent would read another issue, 94 percent would buy it for 15 cents, and 89 percent thought it teaches women things they would like to know. According to Crow and colleagues, women who were married, over age 27, and with at least 13 years of education were less likely to respond positively than younger, unmarried, and less educated women.

Evaluation information was received also from 83 readers who returned tear-out reply cards which had been bound in the first issue. Of these readers, 93.9 percent said they liked True to Life. The age distribution of the positive respondents was 12–56 years, and that of the negative respondents was 23–68 years. The most informative responses, perhaps, were to an item asking what questions readers would like answered in the column "Dr. Adams' Advice to Couples." Responses indicated a trust in the publication and provided ideas about appropriate content for future issues.

The success of True to Life is significant not only because it may help women use birth control more effectively, but because the manner in which the material was conceived and the process by which it was developed may serve as a model for future efforts in patient education, Crow and her associates concluded.

Arts Can Play Vital Part In Environmental Change

The performing and visual arts—theater, dance, music, painting, writing, and film making—are dynamic ways of tuning up man's sensorium and providing fresh, inventive ways of looking at the familiar environment, asserted research associate Stephanie A. Mayer of the University of Michigan School of Public Health. Science can state the why of environmental problems and present choices in terms of available scientific data, and technology can state how to correct environmental problems, but experience shows that ultimately it is the judgment of the individual person who determines what is or what is not done, she declared.

The proper use of the performing arts is an effective way to involve and motivate persons, especially young people. Mayer emphasized that we need a society of persons who have developed a sensitivity to esthetics and a recognition of the need for creative beauty and esthetic planning throughout the environment. For many years attempts have been made to secure a quality environment for people by applying technological control measures, but the effectiveness of such programs have not equaled the pressing needs of the past decade, she asserted. She advocated the use of the arts as processes or ways of working creatively with individual persons and groups who can then join with science in working toward the same goal—a quality environment.

Motivating for Change

She gave the following illustrations to show how motivation for change can be obtained by stressing individual creative ability through involvement in "doing art." Dance has been used in the field of education—kinetics was used to teach rotor theory in physics classes. Dancers used rhythm to teach a typing class to achieve a rhythmic fluidity as well as accuracy in typing. A football coach whose players were twisting their knees out of joint solved the

problem by teaching the players exercises used in dance warmups.

She described how several techniques of the performing arts were used in the U.S. Virgin Islands to obtain a better environment. Fifty volunteer St. Thomas high school students, potential dropouts with high absentee rates, and 50 artists and specialists from the community poured their energies into writing and composing songs expressing concern about the environment. The students researched environmental problems, wrote scripts and original songs, and acted, directed, filmed, and edited a 15-minute, 16-mm color soundfilm documenting littering and pollution on the island.

As a result of their activities, the students' families and members of the community became involved. Laws already on the books were suddenly enforced, new legislation was passed to insure quality water in Charlotte Amalie's harbor, and cleanup campaigns were organized aimed at eliminating the dumping grounds that blighted the area.

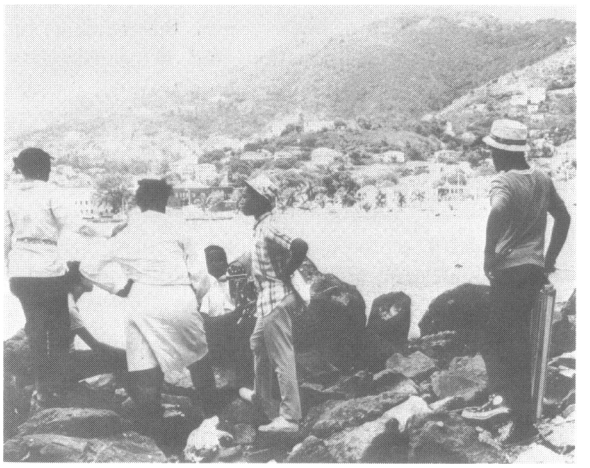
The project not only benefited the community but also the participating students. Their school attendance changed to excellent. Most finished their final year in school, and six were accepted by colleges on the mainland.

Changing Environment Through Awareness

Mayer pointed out that in the St. Thomas project, people became sensitive to their environment by observing through the critical and detached eye of the camera. Putting oneself into someone else's shoes is another way of becoming sensitized to an environment. She outlined two situations in which such an exercise would be fruitful.

Nurses in a hospital could become aware of how the environment they create affects patients when they play the patients' roles in a skit that faithfully portrays the patients' perceptions of their environment. The nurses can perceive the helpless feeling of patients which leads them to complain of neglect. It is easier for nurses to change their attitudes toward patients once they understand some of the restrictions and frustrations of their hospital life.

Tension is frequently high between teachers and students in ghetto schools. Mutual understanding might be achieved by analyzing the basic body movements of certain poses, Mayer said. The students might imitate a characteristic pose of the teacher who sits back stiffly in her chair with arms folded tightly across her chest and stares at the students. This pose might be interpreted by the students as critical of everything they were doing at the time and, when faced with this form of body language, their automatic reaction would be antagonistic.



St. Thomas high school students work on film about the island's littering and pollution problems

A further analysis of body motions could show that the teacher possibly had a similarly antagonistic reaction to the black student "strut." In discussing the movement, both parties would discover that each motion had a common denominator; in each, the arms are drawn in toward the center of the body, suggesting a pose that could be interpreted as self-protective. Although personal habits may be difficult to change, a change in attitude toward the habits of others can take place. Each can understand that the critical pose of the other has a defensive component.

Creatively used, the arts can become an invaluable part of the dialog of learning by doing—helping to stimulate reflection, inquiry, discovery, and evaluation.

Ambulance Service In Vermont Has Improved

A 1971 study of 163 highway fatalities in Vermont showed that 23 percent of the persons who died as a result of accidents had either definitely or possibly survivable injuries. Of those who did not die at the crash site but who succumbed either in the ambulance or the hospital, almost half died of survivable injuries. Their deaths could be attributed to problems and inadequacies in the State's emergency care system, as nearly half died from prehospital aspects of care and the other half from problems that occurred in the emergency room, reported Dr. Julian A. Waller, department of community medicine, University of Vermont. Contrary to expectations, he said, delay in discovery was not often a contributor to unnecessary death, and delay in arrival of the ambulance after discovery was not a factor in any death.

Training of ambulance personnel and equipment available, Vermont, in percent

Training and equipment	January 1970	January 1971
Training		
Attendants and driver-attendants...	[1] 704	[1] 892
None	3	3
Standard Red Cross or equivalent.	22	8
Advanced Red Cross	56	41
Greater than advanced Red Cross.	20	47
Drivers	[1] 108	[1] 125
None	43	43
Standard Red Cross or equivalent.	25	16
Advanced Red Cross	20	25
Greater than advanced Red Cross.	12	15
Equipment		
Primary ambulances	[1] 89	[1] 92
Oxygen	88	96
Resuscitator	57	78
Suction	47	67
Long bone splints	86	78
Long and short backboards	50	61
First backup ambulances	[1] 41	[1] 31
Oxygen	73	83
Resuscitator	35	52
Suction	22	46
Long bone splints	65	63
Long and short backboards	14	46

[1] Number.

Half of the ambulance services in Vermont were responding to only one emergency call or less per week in 1970—hardly enough to maintain through practice the level of skills and knowledge needed, said Waller. According to State estimates, only 69 percent of the ambulance services were able to be on the road during the day within 10 minutes after receiving a call. At night the figure dropped to 49 percent.

Thirteen ambulance districts were established by legislation in 1968, each district roughly equivalent to the areas served by 19 hospitals with emergency rooms. This legislation gave the districts broad powers to plan, regulate, or even operate ambulance services, and gave the State health department the authority to license and regulate ambulances. Several legislators were concerned that the State might have too much control; therefore, for State regulations to be operational in any district, the legislature required that they be approved not only by the State but also by district boards.

As of January 1970, only four of the 89 ambulance services in Vermont met the following standards required for emergency care licensing in the State: (*a*) availability at all times, with both driver and attendant; (*b*) advanced first aid training for attendants or driver-attendants and standard first aid for persons acting as drivers only; (*c*) a sufficiently large vehicle—station wagon not acceptable—with oxygen, resuscitator, and suction equipment and long bone splints, backboards, or other equipment; (*d*) radio communication with the nearest hospital; and (*e*) a physician to act as medical liaison.

A 70-hour training program, developed by Dr. J. D. Farrington, a physician of Minocqua, Wis., and others, was initiated in late 1970 through the use of matching monies from the U.S. Department of Transportation. Improvement in training has occurred almost entirely among attendants and driver-attendants, who comprised 87 to 88 percent of ambulance personnel in 1970 and 1971 (see table).

A communications system was established, also with matching DOT funds, to provide voice contact between ambulance and hospital personnel. In 1971 radio communication was either installed or on order in 15 of the 19 hospitals and 50 of the 92 ambulance services in the State that year, reported Waller.

By August 1970 there were 26 services that met the standards set for emergency care licensing in the State, and in 1971 the number had increased slightly, according to Waller.

The corrective approach in Vermont has been to seek voluntary upgrading of the service, at the same time insuring that service is available in every area of the State. With few exceptions, this approach has appeared to be successful, said Waller.

Try Nonphysician Health Team In Maryland HMO's

The development and evaluation of three-level, nonphysician family health teams to deliver comprehensive health care to families is one response to the need to increase the volume and lower the costs of medical care. The training and evaluation of such a team is underway in Baltimore, reported Dr. Archie Golden, associate professor of Johns Hopkins Medical Institutions' Department of Maternal and Child Health and training coordinator, Health Services Research Center, and colleagues.

The team, which would fill the need served by a declining number of family practitioners, would have built-in career mobility with all positions open to both men and women. The family health team would be acceptable to health professionals, patients, and the public in general.

For a given population, Golden and co-workers believe that the nonphysician team can provide up to 80 percent of the necessary primary care. The first teams to be trained will provide care to inner city residents in East Baltimore in the East Baltimore Medical Plan. Future teams will be trained for service in Columbia, Md., a new city of middle class residents.

The family health team would work within a

health maintenance organization. An HMO serving 25,000 people would employ eight to 12 family health teams, backed up by physicians and other health specialists.

The Team

Frontline worker on the team is the family health advocate, an ombudsman in family health. Visiting in the home, the advocate can participate in treatment plans because he will know the resources available to the patient and to his family. History taking, some of the tasks of physical examinations, and laboratory testing will be included in his activities. He or she will be the link to other community resources, such as legal aid, housing, and nutritional services. Ability to communicate and establish interpersonal relationships are attributes of the family health advocate.

The family health associate will be the next level of expertise, the authors explained. This person is not being trained yet, but will be trained first as an advocate and, while receiving training, will complete an academic sequence. He will handle more complicated tasks, process health checkups, and manage certain chronic illnesses such as obesity, asthma, and hypertension. He will work with community groups in helping them with health and health-related problems.

The third member and top level of the team is the family health supervisor, who will be responsible for the day-to-day operation of the whole team, consisting of one to two associates and two to four advocates, depending on the area covered by the program. The supervisor will be responsible for diagnosis and treatment plans for mild to moderate health problems and for referring patients to appropriate specialists when necessary.

Training

The basic course of training for each level of worker is 6 months, the authors reported. Core of the curriculum, built on a community medicine skill inventory of 360 skills, is a course in community and family health. Other important courses are community resources, communication skills, health assessment, and work in health care facilities with both well and ill patients. Teams will work with families throughout the program with psychological and social concerns included in the training experience. Health advocates will complete the 6-month training program; associates and supervisors will move into a 6-month internship.

There will be no educational requirement for number of years of schooling for the health advocate. Educational level of candidates will reflect the average of the community. The associate must have had 6 months' experience in the health field. The supervisor must be a registered nurse, or independent duty medical corpsman, or have come up through the associate level.

Evaluation

The following areas, said Golden and co-workers, will be covered in evaluating the training: the use of task analysis in curriculum design and analysis of trainee performance on the job; success of the career ladder; cost of care delivered by the team; and patient, public, and other health worker response and acceptance of the team.

The family health career also offers an opportunity to minimize the identification of particular jobs with one sex or the other, and thus break down some of the territorial barriers in the healing arts. Of the first six supervisor trainees, two were medical corpsmen and four were registered nurses; of the first 12 advocates, three are men. This career training breaks with the physician assistant and nurse practitioner programs in that it sets up new roles in community health rather than tasks being delegated from the content of traditional practices.

The usual health care team model involves several traditional professional workers. The ability of such a group to communicate with one another and with its patient clientele is one of its major problems. To overcome this, team members must be committed to common goals, and leadership must be flexible.

Group experience in learning has taken place in the training of the family health team with a family health supervisor and several health advocates working together. In this way, commonalities of purpose result among team members.

In combining team members of different educational levels, mutual learning takes place, the authors stated. Community residents can contribute to physician education. Both in the classroom and in practical work in the ambulatory setting, health supervisors take the role of coordinator as well as carry out diagnosis, treatment, and health maintenance.

The significance of the program, observed the authors, is several-fold. It is planned to serve future health systems. It sets up a model for a manpower continuum in which preparation and utilization of different types of workers are optimally related. Arrangements between educational institutions will, in addition to the vertical mobility, permit horizontal input from other health careers.