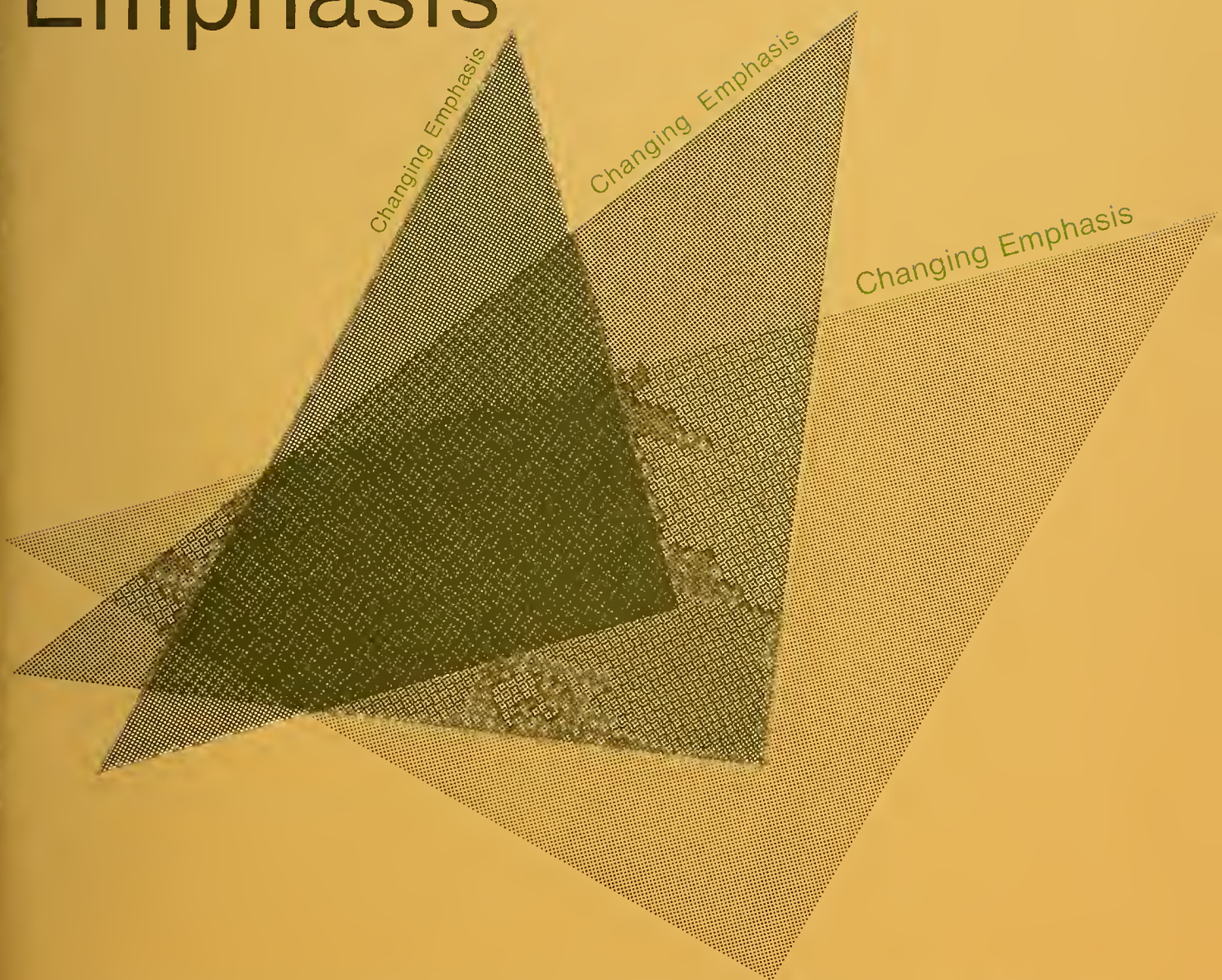
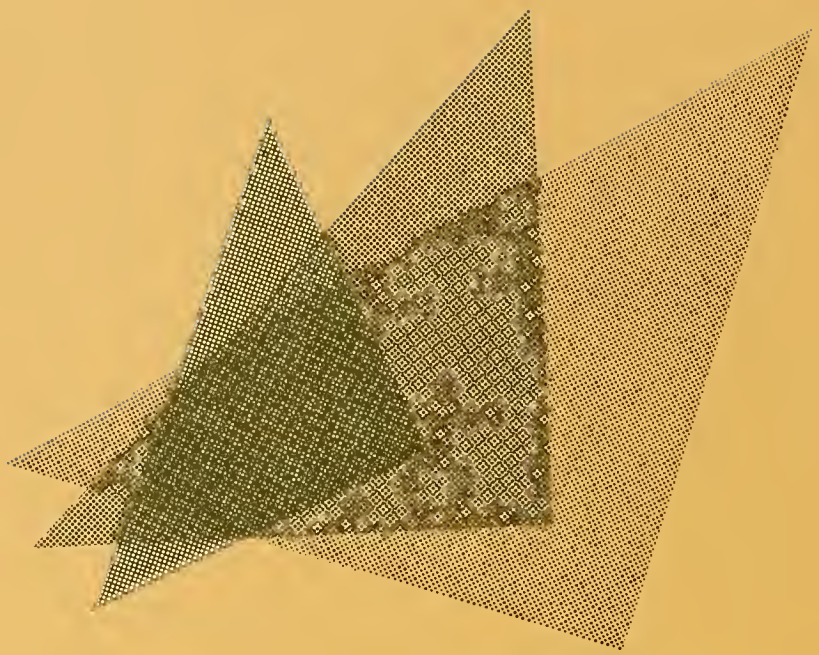
Changing Emphasis



MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

1972-1973



MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

June 30, 1973

William J. Bicknell, M.D., M.P.H.
Commissioner of Public Health
Chairman, Public Health Council

PUBLIC HEALTH COUNCIL

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Chester R. Kennedy, *Art Director*

CHANGING EMPHASIS
1972-1973

The year that ended on June 30, 1973, was an unusually busy one for the Department of Public Health. The Human Services Reorganization Act (House Bill 6120) was still being discussed and debated by members of the Legislature at the end of the fiscal year. Public and legislative hearings, explanatory meetings with outside agencies, and discussion of proposals for reorganization of the Department had, however, put heavy demands on the time and energies of departmental personnel.

The proposals sought to strengthen the three major areas of responsibility of the Department of Public Health:

1 * Health Protection, which encompasses:

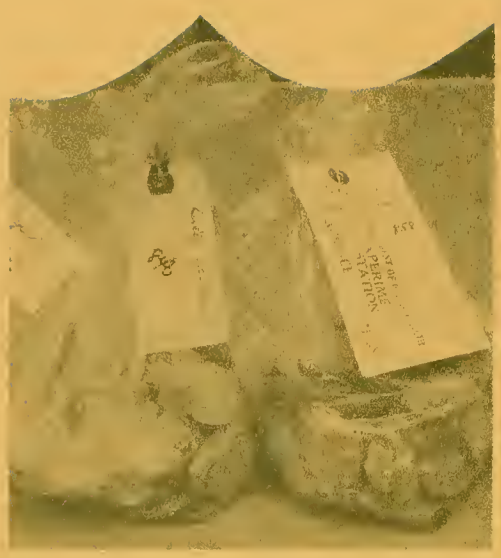
Health Surveillance and Disease Control — to guard the health of the people of the Commonwealth and to control disease through testing, vaccination, treatment, analysis of disease trends and assessment of threats to the population.

Environmental Health — to restore and preserve the integrity of the environment through controlling pollution of the air, water and land.

Food and Drugs — to regulate the quality and safety of consumer products, food and drug processing.

2 * Health Regulation — to regulate the quality and safety of health care facilities through licensing, certification and inspection; through the administration of the Determination of Need Program; and through planning and the collection of statistical data.

3 * Health Services — to provide direct health services through the seven public health hospitals, through the Department's alcoholism program, and through services to children.




The red tide episode was undoubtedly the emergency highlight of the year. In September 1972, the Commonwealth experienced an outbreak of paralytic shellfish poisoning (PSP) caused by the consumption of shellfish harvested from Massachusetts waters, which had been infested with the marine dinoflagellate, *Gonyaulax tamarensis*. Although PSP had been recognized for over a century as a clinical entity, this outbreak was the first of its kind in Massachusetts history.

The Department acted immediately and decisively and declared the North Shore region from Gloucester to the New Hampshire line closed to the taking of shellfish. On the following day, Governor Francis W. Sargent declared a public health emergency, and the Department placed an embargo on the sale and marketing of fresh and frozen shellfish at the wholesale and retail levels. By September 17, the harvesting of all shellfish along the entire 2,000-mile Massachusetts coastline was banned; marketing, exporting and serving of shellfish were prohibited throughout the Commonwealth, and stocks were confiscated. Monitoring of the entire Massachusetts coastline revealed that 2,800 acres of shellfish harvesting areas were contaminated by *G. tamarensis*.

To deal with this emergency required the staff and technical resources of several Divisions within the Department. The Division of Food and Drug Laboratory performed bioassays on the shelf stock of markets, restaurants and wholesale dealers. The Division of Communicable Diseases began surveillance for cases of paralytic shellfish poisoning, and canvassed poison centers and accident floors of all hospitals in the northeastern portion of the state, as well as those in Metropolitan Boston. Eventually, 26 illnesses were reported and verified. Of these, two were severe and the patients required respiratory supportive treatment.

Bioassays on the shellfish samples were carried out by the staff of the Lawrence Experiment Station, who also monitored all shellfish growing areas in collaboration with the Lakeville Laboratory of the Division of Environmental Health and the Cat Cove Marine Research Laboratory of the Division of Marine Fisheries, Department of Natural Resources. The Division of Community Operations alerted all local boards of health to the potential poisoning of *G. tamarensis* and to its possible effects. A campaign of public education through the press, radio and television was coordinated by the Office of Health Education.

Prompt and decisive action by the Department prevented the PPS episode from developing into a major outbreak. As a result of effective mass public education and a comprehensive embargo on potentially hazardous shellfish, no cases of PSP occurred after September 17, 1972. Despite the identification of shellfish with the extremely high toxicity of 5,000-10,000 micrograms/100 grams, there were no fatalities in Massachusetts. Ingestion of only three clams containing the above amount of toxin would have been sufficient to produce a lethal human dose. The mortality rate in outbreaks of PSP in other areas, including Canada, has usually been 20 percent.

Following the lifting of the general ban in October, the Commissioner of Public Health appointed a short-term task force to study the problem of paralytic shellfish poisoning and to submit a program for surveillance and control in Massachusetts. Chairman of the task force was Bernard B. Berger, M.S., Professor of Engineering and Director of the Water Research Center, University of Massachusetts (Amherst), and a member of the Public Health Council.

The signing into law of the Determination of Need Bill on July 18, 1972, gave the Department statutory responsibility to prevent unnecessary expansion of health care facilities. On June 29, 1973, the Department promulgated new rules and regulations for the program, including the participation of the Statewide and Regional Comprehensive Health Planning Agencies. With the passage of the Determination of Need Bill, the regulatory aspects of public health became more important in the work of the Department. The increase in the number of applications received under this program brought about a parallel growth from two to six in the staff of the Legal Office.

The voice of the consumer in the determination of health care programs was strengthened by the reconstitution of the Public Health Council under a section of the Determination of Need Law. In addition to the Commissioner of Public Health, the Council membership now includes three providers, two of whom must be physicians, and five nonproviders. A second physician was to be appointed later.

Two additional programs in the field of health planning came into being in early 1973. The Office of Emergency Medical Services, in the Office of Health Planning and Statistics, was given the initial responsibility for working with the Area Comprehensive Health Planning (b) Agencies to design regional emergency medical services systems, and to train and upgrade ambulance crews, firefighters and policemen to qualify as certified emergency medical technicians.

The second project was the formation of a Human Rights Committee in April 1973 to guarantee the confidentiality and privacy of individual health information. The Committee is working on a set of guidelines to be used in the Office of Health Planning and Statistics; these may have possible future application to other state agencies.

Although the Department has, in the past, had student interns assigned to various Divisions for short periods of time, it embarked upon a special, one year Post-BA Internship Program for young women interested in public health. Eleven women were selected during the spring to begin work in the Department on July 1, 1973. They were to be assigned to different Divisions and programs in accordance with their interests and experience.

The Department continued to provide basic preventive and protective services to segments of society that do not usually fall within the purview of private medical resources. The Prison Health Project, working in collaboration with the Department of Public Health, became operative in the fall of 1972 to upgrade medical and dental care in the state correctional institutions, and to organize training and placement programs.

Looking to the years ahead, the Department has given serious consideration to what its role will be in relation to other agencies within the Commonwealth. Without formal legislative reorganization of its structure, the Department has, nevertheless, made some changes to reflect the accelerated growth of certain aspects of its operation.

This 59th Annual Report*is a brief accounting of the activities of the Department of Public Health at a time of changing emphasis. This aims to create a new balance among the three cornerstones of the Department — protection, regulation and service programs.

*In 1914, the Legislature passed an act dissolving the Massachusetts Board of Health and creating the State Department of Public Health.

HEALTH SERVICES

One of the major functions of the Department of Public Health is the provision of direct health services that are not provided by the public sector. Primary services include: hospital care through the seven departmental hospitals, detoxification and rehabilitation of alcoholics through the Department's community-based alcoholism program, and services to children through the Preschool Nursery and Handicapped Children's Programs.

ALCOHOLISM PROGRAM

Passage by the Legislature of the Comprehensive Alcoholism Treatment and Rehabilitation Act in 1971 strengthened the powers of the Division of Alcoholism to establish a coordinated, comprehensive program of treatment, rehabilitation and prevention of alcoholism. The law abolished the crime of public intoxication (to become effective July 1, 1973), and provided for the establishment of detoxification and other facilities for the treatment of the alcoholic.

The state plan, prepared by the Department, called for the establishment of 500 detoxification beds, in units of about 20 beds per facility, throughout the Commonwealth. By the end of fiscal 1973, the Division had established 14 alcoholism intervention centers with 315 beds, capable of serving 38,000 of the estimated 60,000 public intoxicants.

The Division, with the assistance of the local administrative directors of the centers, conducted an intensive education and training program with the police in the areas covered by the detoxification units. By June 30, 1973, all police chiefs in the state were contacted and provided with written orientation material for distribution to all police officers.

The Division continued financial support of 23 half-way houses under partnership arrangements between nonprofit corporations and the Commonwealth. The state contributed approximately $10,000 a year to each half-way house. Additional operating costs of about $30,000-$35,000 were recovered from the clients and local communities. The Division also maintained its support of 21 outpatient alcoholism clinics that serve an approximate patient load of 10,000.

A special project grant from the National Institute of Alcoholism and Alcohol Abuse made possible the establishment of a statewide alcoholism program related to employment. Occupational specialists of the Division were successful in setting up 14 occupational alcoholism projects: eight in state and local government, and six in private industry. As a result of the work of the occupational branch of the Division with the State Group Insurance Commission, the new health insurance contract for state employees, effective July 1, 1973, will provide coverage for alcoholism without any limitations or discrimination.

HOSPITALS

Through its seven hospitals, the Department provides a broad range of clinical services to meet the needs of patients with long-term but remedial disabilities. In the past year, the seven hospitals assumed a more direct role in making comprehensive health care available to the communities in which they are located.

The hospitals have worked more closely with regional planning groups to develop programs for needed services that are not provided by other hospitals, voluntary or private, nor by other health agencies. At the same time, the Department has been considering what its role should be in the provision of medical services through its seven institutions. New services and programs perhaps indicate the trend for the period ahead:

- Lakeville Hospital opened its summer day camp program to outpatients from the handicapped children's clinics. Nursing staff from the hospital provided coverage for services at the clinics.
- Lemuel Shattuck Hospital has begun to supply surgical services to the hospitals of the Department of Mental Health to replace services previously provided at the Boston State Hospital. During the year, 370 surgical patients from mental health hospitals received services. Tentative arrangements are underway to provide services to inmates of correction facilities.
- The Massachusetts Hospital School, the Department's hospital and residential facility for physically handicapped children, instituted several new programs. The success of the Myelodysplasia Service, a multidisciplinary clinic, led to the establishment of the Nursery for Multiply Handicapped Infants and Children, in conjunction with Family Health Services. The Baylies Beginning Center, an open classroom, preschool project, initiated a special morning program for children from the school and the surrounding area. Ten of the children were not handicapped. The program was successful in breaking down the barriers that usually exist between the handicapped and nonhandicapped. It will serve as the model for similar programs throughout the state.
- During fiscal 1973, the outstanding event was the completion of the new Pondville Hospital. Patients were transferred to the new structure on August 22, 1972. The capacity of the new hospital is 140, an increase of 30 beds. The expanded facilities will soon house a Betatron, a 45-million electron volt linear accelerator, the most powerful radiological weapon now in use in the treatment of cancer. The hospital will serve as the southeastern regional cancer center, and will provide a full range of surgical, chemotherapeutic and radiotherapeutic services.
- The Community Comprehensive Health Clinic at the Rutland Heights Hospital has grown greatly. Appointments now have to be made 14 months in advance. The clinic sees 10 to 12 new clients daily, six days a week.
- A major accomplishment of the Tewksbury Hospital was the successful transfer of 29 children to the new hospital unit, on May 1, 1973. The hospital is cooperating with the Neighborhood Youth Corps in their program for the employment of underprivileged children. Salaries for these young people are paid by the federal government.
- The Physical Medicine and Rehabilitation Service at the Western Massachusetts Hospital, which was reactivated in 1971, has had the most active growth of any clinical service at the hospital. In fiscal 1973, the number of inpatients increased by 70 percent, and the number of treatments by 150 percent. Related outpatient services quadrupled in the same period.

The seven hospitals, with an actual operating capacity of 2,075, admitted 7,766 patients during fiscal 1973. The hospitals have an average daily patient load of 2,000 and an average daily admission of 20 patients. The average length of stay varied from 20 days at Pondville Hospital to 219 at the Massachusetts Hospital School. The shift in emphasis from

Table 1
PUBLIC HEALTH HOSPITALS
YEARLY CENSUS SUMMARY — JULY 1, 1972 - JUNE 30, 1973

	Operating Capacity	Admissions	Discharges	Average Daily Census	Average Length Of Stay	Out-Patient Visits	Total Patient Days
Lakeville	150	498	490	133	101	1,643	49,142
Lemuel Shattuck	205	3,416	3,292	216	22	9,995	77,605
Mass. Hospital School	180	157	158	108	219	808	39,381
Pondville	104	1,189	968	73	20	18,326	26,812
Rutland Heights	180	937	935	133	68	5,232	48,553
Tewksbury	1,136	835	674	1,054	159	0	384,570
Western Mass.	120	734	635	72	36	16,270	26,453
Totals	2,075	7,766	7,150	—	—	52,274	652,516

custodial to ambulatory care is indicated by the increased number of outpatients — 52,274 (Table 1), an increase of nearly 10,000 over the previous year. The hospitals provide the following services:

Hospital	Services
Lakeville	Comprehensive rehabilitation for children and adults, chronic renal dialysis, residential asthma center for children.
Lemuel Shattuck	Medical and surgical care of chronic illness, emphasizing pulmonary disease care, renal dialysis, chronic alcoholism and vascular programs.
Massachusetts Hospital School	Education and vocational training coupled with medical and surgical care of physically handicapped but mentally normal children.
Pondville	Multimodality treatment of cancer in adults and children.
Rutland Heights	Long-term hospitalization and rehabilitation of adults with chronic diseases and alcoholism.
Tewksbury	Medical and surgical care of chronically ill and severely handicapped adults and children, alcoholism program.
Western Massachusetts	Long-term care of chronic illnesses in adults, rehabilitation program.

As an essential element of the total public health effort, the Department's hospitals were being used, to a greater extent than in the past, to develop and implement programs for the training of physicians and paramedical personnel. Lemuel Shattuck, Pondville, Tewksbury and Western Massachusetts Hospitals, through their accredited schools of practical nursing, graduated about 150 licensed practical nurses, many of whom continued to work at the hospitals. The others contribute to the reservoir of personnel needed for the hospitals of the Commonwealth.

Lakeville Hospital provided educational services to Bridgewater College students in Special Education, to the Lynn Hospital School of Nursing, the Quincy Hospital School of Nursing and to St. Luke's Hospital in Middleborough.

The hospital facilities of Lemuel Shattuck are used by students of Tufts University School of Medicine throughout their four years of medical training. In addition, 18 residencies in Internal Medicine are offered and are accredited for three full years of training in conjunction with the Faulkner Hospital, an affiliated institution.

The Massachusetts Hospital School provided instruction for students majoring in Physical Therapy at Northeastern University. In addition, the School provided experience for teacher interns from Tufts University.

Pondville Hospital continued its affiliation with the Boston University School of Medicine, Department of Radiology at Boston City Hospital. Through this affiliation, Pondville receives on a rotational basis the continued services of two junior radiologists and two radiology residents.

Rutland Heights Hospital gave formal training courses in hospital administration, psychologic counseling, rehabilitation nursing, and physical therapy to students from neighboring colleges and universities.

In the spring of 1973, Tewksbury Hospital began a cooperative project with the Medex Physician's Assistants Program of Dartmouth College's School of Medicine. One student began his training program under the preceptorship of the hospital's medical director and two senior physicians.

The Rehabilitation Service of the Western Massachusetts Hospital is involved in the clinical training of students from the graduate program of Adaptive Physical Education at Springfield College, the Physical Therapy Section of Northeastern University, and the Physical Therapy Assistant Program of Springfield Technical Community College.

FAMILY HEALTH SERVICES

Improved health services to mothers and children in the Commonwealth remained an important aspect of the Department's total effort to upgrade community health. The Family Health Services staff carried out programs aimed to reduce infant and maternal mortality, promote maternal and child health, and to evaluate and treat handicapped children. Emphasis in the past year has been on the development of new services, and on the improvement and expansion of existing services to answer the needs of the individual and of the community.

Handicapped Children's Services

The identification of handicapped children at an early age so that they may have an opportunity to develop to their greatest potential remains a primary goal of the Department. In the past year, the number of profoundly multihandicapped children referred to Family Health Services for possible placement in a pediatric nursing home rose to 250. The Implementation and Referral Center for Services to Handicapped Children aided in this work. A complex and comprehensive program for the identification, referral and treatment of these children was being developed for implementation in the next fiscal year.

The three preschool centers for handicapped children — the Baylies Beginning Center at the Massachusetts Hospital School, the Anne Sullivan Day Care Center at the Tewksbury Hospital, and the Dimock Street Preschool in Roxbury — had an average enrollment of 30 children at each center. The three centers operate as open, integrated classrooms for both handicapped and nonhandicapped children. The concept has proved very successful in maximizing the developmental potential of each child.

The Department expanded its network of clinics for handicapped children to meet the demand for services in areas of the Commonwealth not previously reached. A pediatric evaluation and neurology clinic was established at the Southeastern Regional Office, located at the Lakeville Hospital. The program has been successfully integrated into the activities of the hospital.

Outpatient neurology clinics operated jointly by the Epilespsy Control Program and the Handicapped Children's Program increased during the year. More clinic sessions have been scheduled each month to meet the expanded caseload. The Epilepsy Control Program established closer ties with the Massachusetts Rehabilitation Commission, the Executive Office of Human Services, and the Developmental Disabilities Council in order to identify more effectively those Massachusetts residents with epilepsy who need financial aid to purchase medication.

Child Growth and Development

The Children's Developmental Clinic is concerned with the interaction of the child's social, intellectual and emotional development with his physical development. Children with developmental delays were evaluated at the clinic by multidisciplinary teams for optimal medical management. In the past year, the clinic evaluated 350 new patients and continued to give care to 400 patients previously seen. A close working relationship with the Somerville School Department and various neighborhood health centers helps to coordinate health care delivery and to make appropriate referrals.

Family Planning

During 1973, the Family Planning Program made a great effort on behalf of mentally retarded persons, whether in institutions or in the community. Working with the State Schools for the Retarded in an outreach capacity for the Department of Mental Health, Family Planning staff provided inservice training for staff, counseling for patients and parents, education on hygiene, health sexuality and contraceptive use.

Other Family Health Services projects included: aid to the hard of hearing, rheumatic fever prevention, the premature birth program for unwed mothers, and funding for PAGE, a program of continuing education, sex counseling, and health hygiene for unwed junior high and high school mothers.

Community Health

The scope of activities provided by the Department is reflected in the local health services provided by four regional offices in the state. These offices coordinate the Department's general field activities, and act as intermediaries between the central service programs and the local health agencies. They help the local health agencies either by consultation or by direct assistance in the local programs. These include school and personal health services, the application of the State Sanitary Code, day care licensure, and home health agency certification.

Only a few activities of each regional office in the past year can be noted:

- Central Region — Staff members organized and participated in education programs designed to fit the needs of many segments of the community. The nursing staff organized a program for 67 nurses on the handling of children with special needs. Another meeting brought together 200 people to discuss the regional infant cardiac program.
- Northeastern Region — The specialist in early childhood education provided consultation to groups in 21 communities on licensing, program development, staffing-room arrangements, physical plants, equipment, and on the needs of special children. The educator was assigned to the Topsfield office, Region IV of the Office of Children, two and one-half days a week, to act as liaison and to expedite referrals.
- Southeastern Region — Under an agreement with the Department of Correction, regional office staff have been working closely with the Prison Health Project to improve the standards of health care and to upgrade environmental conditions in the state's correctional institutions. Semi-annual inspections are made at each of the six state correctional institutions. Staff make annual visits to the six county houses of corrections, and periodic visits to the 73 local lock-ups and facilities of the Department of Youth Services.
- Western Region — The regional nursing advisor is serving with board representatives from Berkshire, Franklin, Hampden and Hampshire Counties who planned and implemented a coordinated family planning program for Western Massachusetts. The PAGE (Pregnant Adolescent Girls Education and Health) program continued in Greater Springfield with the consultation and assistance of the Franklin-Hampden nursing advisor.

STAFF SERVICES

HEALTH EDUCATION

The Office of Health Education continued to provide many services in the areas of health information and education to the Department and its program units. Release of information to the newspapers, radio and TV stations, a routine activity of the Office, greatly increased during the red tide episode. The Spring 1973 issue of COMMONHEALTH, the quarterly publication of the Department, was devoted entirely to the paralytic shellfish poisoning incident. Approximately 6,500 copies were printed to meet the nationwide request for the issue.

The production of materials, visual aids and exhibits increased in fiscal 1973, when 3,704,296 impressions were printed. These represented over 600 printing orders.

The recataloguing of the library acquisitions according to the system of the National Medical Library was completed during the year. The appointment of a library committee to review library policy will also strengthen services and utilization.

Health educators assigned to two regional offices planned educational programs with local boards of health, regional planning agencies, community groups and school personnel. Staff from the regional and central offices also participated in training programs and seminars at universities and other educational institutions.

MANPOWER DEVELOPMENT AND TRAINING

The Office of Manpower Development and Training increased its responsibilities in the past year. It added new programs to its regular tasks of setting up training programs within the Department, and of approving employees for attendance at special courses conducted by outside organizations. The Office developed an Affirmative Action Plan for the Department to guarantee equal employment opportunities to all individuals regardless of race, sex, age, religion or national origin. Office staff worked vigorously to increase the number of women and members of minority groups within the Department.

The Office coordinated the first audit of the Department's compliance with Title VI of the Civil Rights Act. The audit was conducted by the Office of Civil Rights, United States Department of Health, Education and Welfare.

HEALTH PROTECTION

HEALTH SURVEILLANCE AND DISEASE CONTROL

Within the area of health surveillance and disease control are the classic core activities that are and must remain the direct responsibility of the state. These activities are primarily carried out in three related sections of the Department: Communicable Diseases, Tuberculosis Control and the State Laboratory Institute.

COMMUNICABLE DISEASE CONTROL

The year that ended on June 30, 1973 was an unusually busy one for the Division of Communicable Diseases — and in areas that had not been of active concern for many years in Massachusetts.

In August 1972, the Division investigated two outbreaks of gastroenteritis associated with cooked lobster meat. Cultures sent to the Center for Disease Control yielded two cultures of *Vibrio parahaemolyticus,* 01:k38, Kanawaga positive. *V. parahaemolyticus* is a gram negative marine organism that occurs naturally in salt waters and is found in many species of fish, shellfish and crustaceans. The organism dies rapidly in the refrigerator or freezer and in temperatures above 55° or 60°C.

Investigation showed that the lobster meat had been recontaminated during the shucking process. An educational program directed to the employees of each of the lobster firms bore results. No further cases of *V. parahaemolyticus* food poisoning were reported.

States bordering Massachusetts have reported cases of rabies in dogs, cats, farm animals, foxes and skunks. On March 1, 1973, a rabid racoon was detected in Freetown in Bristol County, the first reported case of rabies in a ground animal in Massachusetts since 1949. A case investigation revealed that the animal was rabid when brought into the state from New Hampshire. The Division quickly organized a dog immunization clinic for the Greater Fall River Area and continued its educational program aimed at school-age children.

The Division arranged for immunization of all Christian Science students in both public and private schools in Lexington. This measure was taken after a student who was attending a Christian Science school in Greenwich, Connecticut, developed Type I paralytic poliomyelitis, and was hospitalized at the Mt. Auburn Hospital in Cambridge.

During the outbreak of paralytic shellfish poisoning in September 1972, the staff of the Division carried out surveillance for cases of PSP.

The impressive progress initially recorded through the statewide measles immunization program from 1965 through calendar year 1971 — a drop from 19,512 cases to 276, a 98.1 percent reduction — came to an abrupt halt in 1972. In that year, 1,173 cases were reported, a fourfold increase. Immunization surveys revealed many outbreaks of measles in areas with pockets of low immunization. Of the reported cases, 75 percent occurred in children who should have been immunized in the school health programs.

During the first six months of 1973, 3,822 cases of measles were reported. Most reported measles in high school students was properly rubella (German measles). Teams of two men with jet injector guns were sent into cities and towns with a low ratio of measles immunization or to areas where outbreaks were in progress. Each gun can deliver 500 doses per hour.

The statewide immunization programs continued to record impressive progress in controlling mumps and rubella:

- Mumps down from 9,024 cases in 1965 to 829 in 1972, a drop of 91 percent.
- Rubella down from 9,024 in 1969 to 526 in 1972, a drop of 64.1 percent.

During the first six months of 1973, 54,660 doses of the biviral vaccine for measles and rubella were administered. In the calendar year 1972, the following dosages of vaccine were administered:

* Measles 183,321
* Mumps 176,348
* Polio 804,400
* Rubella 223,691
* Measles/Rubella 81,025

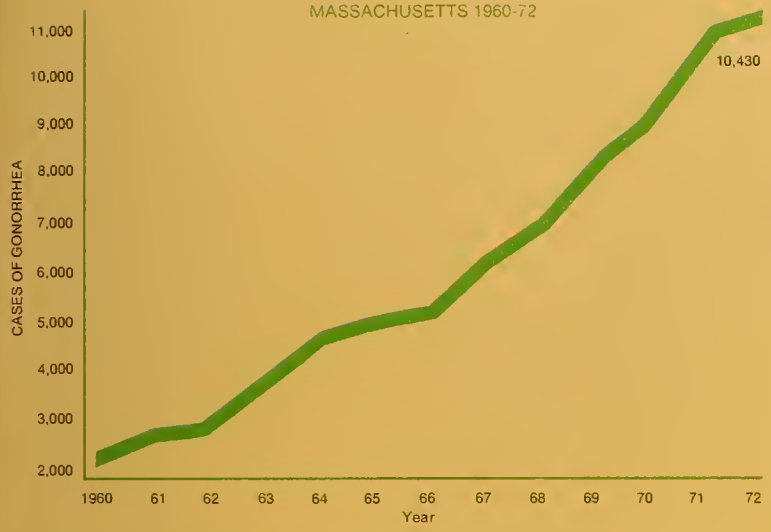
As part of its program to control and eventually eliminate those communicable diseases for which immunizing agents are available, the Division conducted mass preventive programs in 19 communities throughout the state and administered 51,038 immunizations against measles, rubella and polio.

The prevalence of other preventable infectious diseases remains low. Only 22 cases of whooping cough were reported in 1972, and one case of tetanus. There were no reported cases of smallpox or of diphtheria.

Table 2

GONORRHEA

MASSACHUSETTS 1960-72



VENEREAL DISEASE PROGRAM

The increase in venereal disease throughout the world and nation is replicated in Massachusetts. The 10,430 cases of gonorrhea reported in the calendar year 1972 constitute almost a threefold increase over the 3,725 reported cases in 1963. The estimated number of venereal infections was 83,000. This figure is based on a survey indicating that only 12 percent of treated cases of gonorrhea are reported. The curve of the graph for reported gonorrhea in the Commonwealth indicates clearly that it is still an uncontrolled venereal disease (Table 2).

Unfortunately, about 75 percent of infected females have no symptoms of the disease and are, therefore, carriers. A definitive diagnosis in women requires a culture, but cultures have a sensitivity of only about 70 percent. Effective control will begin when a blood test for gonorrhea becomes available. Division staff have been cooperating with other health workers to develop a screening blood test for gonorrhea that can be used by private physicians in their offices.

Primary and secondary syphilis, for the third consecutive year, showed an increase: 320 cases in 1971 up to 519 in 1972. Early latent syphilis increased by 56 percent. Based on the above survey, the estimated number of infections of syphilis in 1972 was 4,000.

In its attack upon venereal diseases, the Department carries on a three-pronged program of education, treatment and control. The 20 cooperating state venereal disease clinics in the outpatient departments of general hospitals examined 23,621 patients, who made a total of 56,982 visits. The Department anticipates a major step by these clinics into family planning. All venereal disease clinic patients will receive family planning counseling and contraceptive information. Departmental support of VD diagnostic and treatments services in family planning clinics is scheduled to increase in the coming months.

The Division received a federal grant of $325,107 for the screening of females for gonorrhea. Laboratory support was received from the State Diagnostic Laboratories, 24 hospital laboratories and five private laboratories to provide coverage for the entire state. During fiscal 1973, the program examined 60,367 women by culture, of whom 2,381 had positive cultures. The grant will continue into the next fiscal year, when the Division plans to screen about 100,000 women.

An important adjunct to the work of the Division was the installation of two data telephones where individuals may call 24-hours a day, seven days a week, for basic information on venereal diseases and where they may go for examination and treatment.

In addition to its activities in prevention and control, the Division was engaged in several applied research studies, including:

- Evaluation of the efficacy of Trobicin in the treatment of gonorrhea. An FDA-approved drug, Trobicin is used only in the treatment of gonorrhea in penicillin-sensitive patients.
- A double blind study to determine the effectiveness of Isoprinosine, a drug not yet licensed by the FDA, in the treatment of primary herpes progenitalis.

TUBERCULOSIS CONTROL PROGRAM

Tuberculosis in Massachusetts is still a significant health problem. In calendar year 1972, the number of newly diagnosed cases reported was 734, a decline of 3.8 percent from the cases notified in the previous year. The failure of the new tuberculosis case rate to decline rapidly is attributable to: 1) an influx of high risk population into the state; 2) high unemployment rates and continuing decline in the standards of inner city housing; 3) the ever-present problem of alcoholism and other forms of self-abuse.

Fiscal 1973 saw the Tuberculosis Control Program moving within existing legislation to change certain aspects of patient delivery, and to facilitate funding, surveillance and cost-effectiveness control of the statewide tuberculosis services. To facilitate cooperative arrangements between the Department, local authorities, private agencies and private medical practitioners, the Tuberculosis Control Program negotiated with the Rate Setting Commission to produce an official statewide rate for TB ambulatory services, effective on July 1, 1973.

During the year, the Department gradually withdrew from a direct provider role to one of quality control, standard setting and community surveillance with technical support for the private medical sector, which is now a major source of direct clinical care for tuberculosis. In fiscal 1973, the majority of the tuberculosis ambulatory services were concentrated in community hospitals. Regional programs became fully operative in Lawrence, Lowell, Cambridge and Worcester. New operations were contracted to begin in the fall of 1973 in Brockton, Holyoke, Northampton, Greenfield, Framingham and the Greater Springfield rural areas.

As the regional community hospital programs took over responsibility not only for ambulatory but also for inpatient care, the relative importance of the remaining sanatoria in the state continued to decline. Five previously established regional TB programs continued to function efficiently. Proposals for 1973-1974 include the setting up of inpatient care services in the Lawrence General Hospital, the Lowell General Hospital, St. Luke's Hospital, New Bedford; Massachusetts General Hospital, the New England Deaconess Hospital and the Cambridge Hospital.

Tuberculosis laboratory services were also concentrated centrally to accommodate to the increasing complexity of mycobacterial identification and of drug sensitivity testing. The Mattapan laboratory became a statewide resource and processed 24,524 of the 34,417 samples submitted within the statewide laboratory complex.

An important aspect of the Tuberculosis Control Program is surveillance of cases and contacts. During fiscal 1973, the Program was successful in completing the implementation of the computerized TRS Surveillance System to cover all TB cases, contacts and patients on chemoprophylaxis in the City of Boston. At the same time, the records system was reorganized to eliminate those patients no longer requiring ongoing care. As a result, the Department now has a regular computer print-out of the progress of 3,500 patients who remain under care and supervision in Boston. Plans were also completed for the establishment of a simpler surveillance system for patients from the rest of the state, to be in operation by the spring of 1974.

The Tuberculosis Control Program continued its efforts to eliminate chest X-ray screening as a first-line procedure throughout the Commonwealth. In all the new regional and area tuberculosis ambulatory care programs, the primary screening procedure is now the tuberculin test. Statewide screening programs of children previously carried out in schools and in the offices of pediatricians were modified. A list of communities at high risk was published, and school testing programs were continued in these communities.

The Program continued to gain entry to institutions from which it had been previously excluded. Most of the hospitals for the mentally ill and for the retarded have adopted the Department's standards for tuberculosis screening and treatment. In addition to its work with the county prisons, the Program is working with the Prison Health Project in state correctional institutions rather than with the individual prison superintendents.

The Tuberculosis Control Program continues to be the largest single clinical program of the Department, with a yearly budget of over $4 million. The following figures on the number of TB patients who received active care or regular follow-up indicate the scope of the TB program:

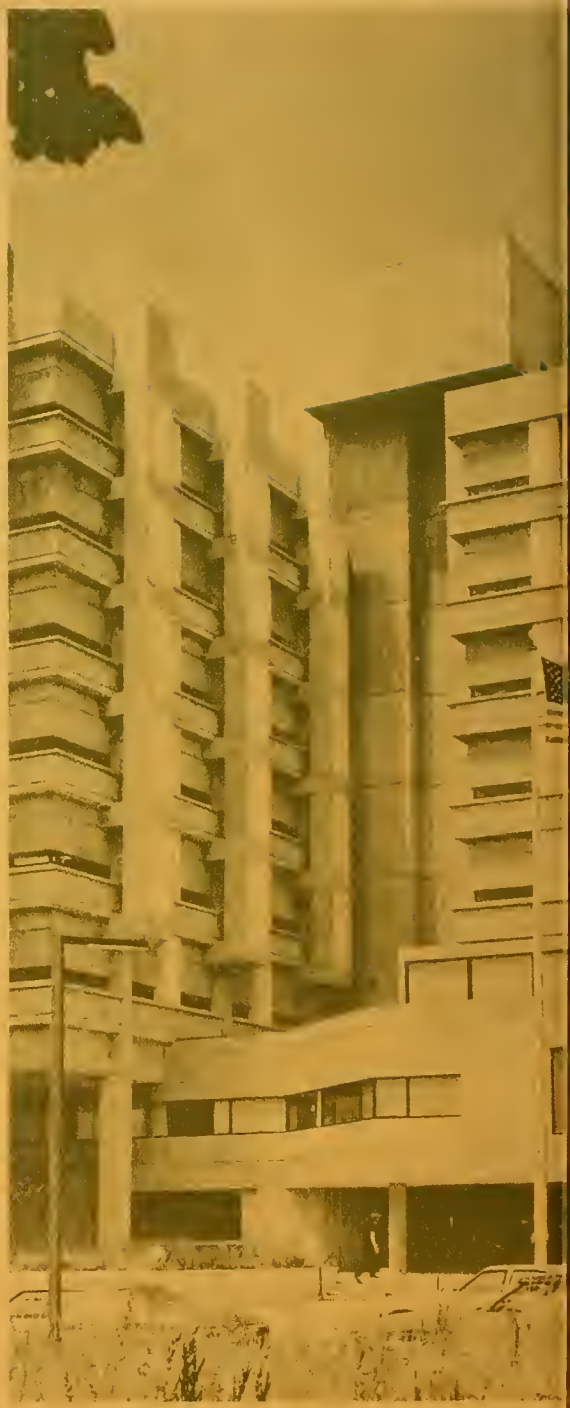
- Total patient visits to tuberculosis clinics in 1972 — 118,943
- Total patients hospitalized for TB in 1972 under the state program — 872
- Number of TB patients under care at home — 3,935.

FLOURIDATION PROGRAM

The Fluoridation Project continued its program of education throughout the state. It sent copies of the revised *Fluoridation Handbook for Massachusetts Communities* to the 287 Boards of Health on public water supplies, and to other agencies who had requested the handbook. Exhibits, pamphlets and other written material helped to bring the message of fluoridation to communities that faced referenda during the year.

During fiscal 1973, Attleboro began fluoridating its water supplies, the 50th community to do so. Cambridge, Fitchburg, North Andover, Walpole and Westboro will soon fluoridate. At the present time, 18 percent of the state's population on public water supplies receive fluoridated water; this places Massachusetts 46th in the United States.

The Project has concentrated on obtaining fluoridation of the Metropolitan District Commission's water supply. When this takes place — target date is 1976 — more than 50 percent of the state's population will receive fluoridated water. The Fluoridation Project will then be able to concentrate its efforts on all the communities in the Commonwealth in order to bring Massachusetts well above the national average. No communities in the state have a natural adequate fluoride content.



STATE LABORATORY INSTITUTE

Through its two sections, the Division of Biologic Laboratories and the Division of Diagnostic Laboratories, the State Laboratory Institute continued to provide many services to the Commonwealth at a cost of less than 40¢ per capita:

- Production and distribution of serums and vaccines (approximately 4 million doses) for use throughout the Commonwealth
- Performance of a variety of tests on approximately three-quarters of a million specimens for clinical diagnostic purposes (inborn errors of metabolism, streptococcal infection and venereal diseases)
- Diagnosis of rare or exotic diseases
- Laboratory back-up services for quality control
- Research

Biologic Laboratories

The Division of Biologic Laboratories provided assistance in about 20 unusually severe, rare or difficult clinical situations, such as, suspected tetanus, diphtheria and smallpox, and in cases of fulminant hepatitis.

Some significant developments during the year included:

- Dysentery toxoid vaccine — Toxin associated with *Shigella dysenteriae* type 1 has been purified and converted to a toxoid for tests as a vaccine.
- Serum albumin — The Laboratories extracted maximum amounts from over 10,000 liters of outdated blood.
- Hyperimmune anti-hepatitis B globulin — A globulin was prepared from especially screened plasmas rich in antibody. The globulin is being field tested in medical workers accidentally exposed to blood contaminated needles, and in renal dialysis patients and staff.
- Rh immune globulin — Production climbed to 7,000 doses, almost enough to treat all mothers in Massachusetts who might be at risk of giving Rh disease to their newborns.

Table 3

FIVE YEAR SUMMARY OF NUMBER AND KINDS OF SPECIMENS EXAMINED BY THE DIAGNOSTIC LABORATORIES

Bacteriology	1969	1970	1971	1972	1973
Agglutinations	2,566	2,535	2,420	2,247	546
Enteric Pathogens	12,512	13,830	13,019	13,126	12,368
Gonorrhea	5,614	6,461	13,463**	17,373**	19,240**
Malaria	3	—	—	—	—
Mycology	154	195	147	183	190
Throat Cultures	114,845	143,157	166,586	168,075	110,548
Tuberculosis	4,115	4,687	5,152	2,345	—
Vincent's Gingivitis	16	10	18	34	3
Food	53	68	45	20	141
Miscellaneous	370	1,270*	460	817	1,120
Totals	140,248	172,213	201,310	204,220	144,156
Wassermann					
Syphilis Serology	455,190	415,162	376,559	370,019	276,359
Rabies	616	632	691	696	632
Totals	455,806	415,794	377,250	370,715	276,991
Virus					
Virus Isolations	528	280	331	779	1,121
Virus Serology	2,423	6,172	5,416	2,581	3,175
Encephalitis Program	3,633	3,687	4,260	1,567	3,431
Rubella Program	1,166	4,791	4,832	7,700	3,483
Totals	7,750	14,930	14,839	12,627	11,210
Metabolic Disorders					
PKU Screening	152,563	203,540	229,945	203,939	196,139
Special Studies	—	131,583	3,588	3,756	3,287
Totals	—	335,123	233,533	207,695	199,426
Grand Totals	756,367	938,060	826,932	795,257	631,783

* Includes 900 gonococcus cultures.
** Includes cultures and smears.

Table 4

Diagnostic Laboratories Metabolic Disorders Laboratory

July 1972 - June 1973

A. Routine Specimens	Total
Cord Blood	62,328
Newborn Blood	75,799
Urine	57,779
Follow-up Blood	233
	196,139
B. Other Specimens	3,287
Total Number of Specimens	199,426
Total Number of Tests	1,083,990

Diagnostic Laboratories

Through its Laboratory Improvement Program, the Division of Diagnostic Laboratories assists local laboratories throughout the state to achieve a high degree of excellence in the performance of clinical laboratory tests. During 1972-1973, the Program evaluated 283 laboratories — 16 more than in the previous year — for the performance of one or more specified test categories. The Laboratory Improvement Program sent out 24,802 proficiency test specimens, an increase of more than 1,600 over last year.

The Program remains responsible for proficiency testing of hospital blood banks, of laboratories performing marital and prenatal blood tests for syphilis, and of laboratories in the Medicare program.

Metabolic Disorders Laboratory

The Metabolic Disorders Laboratory continued to test newborns in the state for over 30 inborn errors of metabolism, the largest neonatal screening program for metabolic disorders in the world. The total number of tests performed was over one million, the largest number in any one year of the program (Table 4).

Several important studies were fully completed or nearly completed, including an analysis of the clinical and biochemical characteristics of children who are offsprings of mothers with phenylketonuria (PKU).

Virus Laboratory

The Virus Laboratory has been hard pressed to provide for the increasing demands for professional consultation and the specialized type of laboratory services that are unavailable elsewhere in the Commonwealth. In three of the four sections of the Laboratory — virus isolation, virus serology and arbovirus program — there was an increase in the number of specimens submitted from approximately 25 to 50 percent over the previous year.

The Isolation Section was the first in New England to isolate the new epidemic A-England strain of influenza from students at Stonehill College in South Easton.

The 1972 arbovirus program made the first confirmed isolation of the eastern equine encephalitis virus from a specimen originating in the western part of Massachusetts.

To improve viral disease surveillance and intercommunication with hospitals, physicians and other health workers, the Virus Laboratory instituted a regular monthly report summarizing type of specimen, laboratory findings and some brief clinical background.

The new State Laboratory building, which was begun in 1969, will be ready for occupancy early in 1974. The consolidation and centralization of public health laboratories will make possible important program expansion.

Table 5

TYPICAL
ANNUAL AVERAGES
FOR
PARTICULATE MATTER

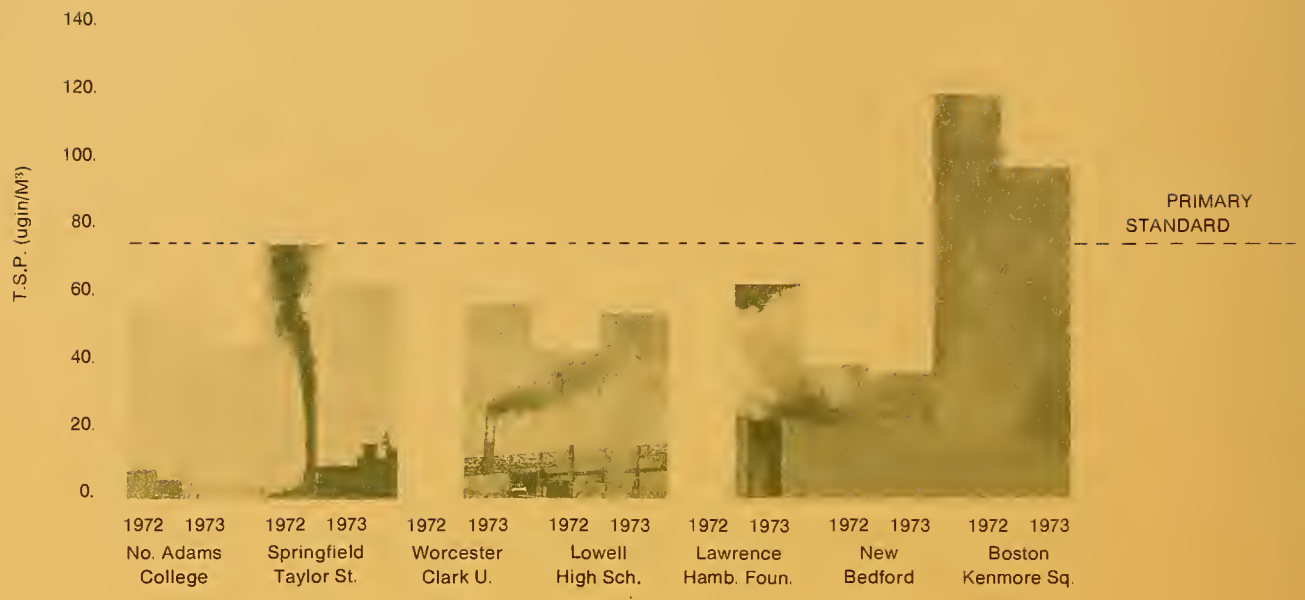


Table 6

TYPICAL
ANNUAL AVERAGES
FOR
SULFUR DIOXIDE

ENVIRONMENTAL HEALTH

The responsibilities of the Division of Environmental Health increased greatly in the past year as public concern for improving and maintaining the quality of the environment intensified. Enforcement of state and federal regulations, especially those relating to air pollution and solid waste management, required the activity of an enlarged staff of inspectors and engineers.

A new aspect of the Division's work has been its concern with the economic impact of air pollution control regulations. Responding to this concern, the Department ordered three studies to determine the cost of complying with the regulations.

Walden Research Corporation, Cambridge, made a study of the cost of compliance on the basis of 1970 emission inventory data and the cost of control equipment now available. The study estimated the economic impact in Massachusetts as $103,377,000 per year. The largest sum — $67 million annually — resulted from the regulation limiting the sulfur content in fuel oil. Some of this loss was reduced by granting variances in special cases of undue hardship, or for the public good.

The Harvard School of Public Health studied the cost effectiveness of the air pollution control regulations on stationary sources. Using computer analyses to estimate pollutant concentrations throughout the state, researchers indicated that secondary standards for sulfur dioxide and particulate matter will be met by 1975.

Public Interest Economics Center, a nonprofit Washington-based economic analysis group, made an indepth study of one pivotal variance request from a paper mill in the Metropolitan Boston Area. From this study, PIEC developed general criteria for the Department to use in defining "undue hardship" and "the public good" for purposes of variance.

Air Quality Control

The Bureau of Air Quality Control, working under the Massachusetts Implementation Plan to the National Clean Air Act of 1970, was able to take enforcement actions that resulted in significant reduction in ambient levels of particulate matter and sulfur dioxide (Tables 5 and 6).

Approximately $700,000 in federal funds assisted the program in expanding the Massachusetts Air Sampling Network to 49 stations across the state. These included seven highly sophisticated, continuous automatic monitoring trailers that transmit data to a central computer in Boston. Part of the federal funds enabled the program to streamline review procedures, source registration, emission inventories, mathematical modeling, and air quality measurements.

The Bureau processed applications and held hearings on many requests for variances to the regulations. The Public Health Council granted 17 variances during the year with estimated savings exceeding $5 million. Ambient air quality standards, however, were not violated.

The importance of an informed public to the success of the air quality control program was underscored by the 6,000 citizen complaints to the regional offices. After investigation by the regional staff, enforcement measures brought 90 percent compliance with the regulations. Further steps were taken to achieve compliance by the other 10 percent.

Water Supply and Water Quality

The Bureau of Water Supply and Water Quality, which is responsible for the environmental engineering aspects and surveillance of approximately 350 municipal water supply systems, approved 22 new sources of water supply, as well as plans for water treatment, storage and additions in 31 more communities. During the year, 22,587 drinking water samples were tested throughout the state. The Bureau granted four requests to establish small private water companies to serve condominiums or housing developments.

As a result of the findings of a committee established by the Legislature in 1971 to study the danger to ground water supplies and to the environment by the use of chlorides or other chemicals to remove ice from public highways, a bill was introduced into the Legislature to regulate the storage and use of snow removal chemicals. If the bill were to be enacted into law, it would assign to the Bureau substantial duties in this aspect of environmental control.

The Board of Certification of Operators of Drinking Water Supply Facilities, established under Chapter 942 of the Acts of 1971, adopted rules and regulations governing its work, and processed over 300 applications for certification. Over 1,100 applications were received for certification under a "grandfather clause" for which the time limit has now expired. Each water supply agency is required to have a certified operator.

The Bureau continued to survey and classify over 40,000 acres of shellfish-growing areas along the 2,000 miles of Massachusetts coastline, and posted all shellfish areas that were closed to shellfish harvesting because of pollution.

The activities of the Bureau in this work were stepped up as a result of the outbreak of paralytic shellfish poisoning (PSP) in September 1972. The special Berger Committee investigated the outbreak and made specific recommendations. Consequently, each week the Department now examines shellfish gathered from 30 stations located along the coastline. This new shellfish activity, which is costly in terms of manpower, has resulted in increased expenditures.

Community Sanitation

The Bureau of Community Sanitation continued its efforts to eliminate all public health problems and nuisances created by the operation of insanitary solid waste practices and facilities. In fiscal 1971, the Public Health Council adopted Regulations for the Disposal of Solid Wastes by Sanitary Landfill. The Bureau has utilized to the fullest its resources to enforce these regulations, and is now working on new regulations for transfer stations and recycling facilities.

During fiscal 1973, the Bureau handled over 500 projects on solid waste management. These required visits or inspections, letters of citation, holding of hearings, issuance of orders, referrals to the Attorney General's office and plan approvals. Public hearings were held on nine sanitary landfill sites.

The Bureau worked in cooperation with the Bureau of Solid Waste Disposal of the Department of Public Works, with the Department of Natural Resources, and other state and local regulatory, operational and planning agencies to coordinate the entire program of solid waste management in the Commonwealth. The Bureau also assisted the Solid Waste Council, made up of the Secretaries of Environmental Affairs, Human Services and Transportation, in developing a statewide plan for solid waste disposal.

The Bureau continued to regulate the disposal of liquid waste discharges into the ground. It reviewed and approved four reports and 41 sets of plans for municipal sewage treatment plants, as well as plans for 600 sewage disposal systems with a capacity of more than 2,000 gallons a day.

The inspection of all farm labor camps and their certification prior to their use by migrant farm workers is a permanent activity of the Bureau. The number of farm labor camps in Massachusetts has decreased, but recreational camps for children, family camping grounds and motels increased. These facilities are subject to licensing, inspection and regulation by local boards of health. The Division of Environmental Health, however, is responsible for review of plans for the disposal of sewage and for surveillance.

Environmental Health Laboratories

The Lawrence Experiment Station and three regional laboratories — at Amherst, Lakeville and Tewksbury — provide the laboratory services for the Division of Environmental Health.

The paralytic shellfish poisoning episode (PSP) placed great demands on the personnel, facilities and budget of the Experiment Station, which was the focal laboratory for the measurement of toxin in shellfish. The Station actively participated in: 1) identifying the areas initially infected by the toxic marine algae, *Gonyaulax tamarensis;* 2) determining when the infested areas could be open for shellfishing; and 3) establishing a network of 30 key stations for the early detection of future toxic blooms in Massachusetts shellfish waters.

Researchers made significant progress in the development of a new procedure for the measurement of fecal coliform concentrates in estuarine waters, and in applying fluorescent spectrophotometric principles for the measurement of trace microorganic constituents in drinking water.

In the past year, the environmental health laboratories performed tests on the following samples:

Bacteriological (Coliform Analysis)	28,807
Chemical (Water Supply)	9,580
Chemical (Water Pollution)	2,291
Radiological	3,169
Air Analysis	8,440
Paralytic Shellfish Poison Bioassays	1,402
Toxic Metals	600
Biological	533
Special Chemical (Pesticides, Oil)	250
Total	55,072

This represents a four percent increase in the number of samples examined over the previous year. The true increase in the workload was greater since the number and complexity of analyses performed on each sample had multiplied.

The Lawrence Experiment Station is now developing a program to computerize all the chemical data obtained by the Station on the water supplies of Massachusetts.

Environmental Radiation Control

The steady increase in the number of environmental problems created by sources of man-made radiation and emission from electronic products has added to the activities of the Bureau of Environmental Radiation. During fiscal 1973, the Bureau continued its routine monitoring programs of wastewater from nuclear facilities, and of the waters that receive the waste. The levels of radioactivity monitored were not of health significance. The levels in drinking water supplies varied seasonally through natural causes.

The predicted growth of nuclear-power generating stations in Massachusetts and on the borders of the state resulted in the development of specific emergency response plans for each nuclear facility. During the year, two full drills were held under the Pilgrim Nuclear Power Station Emergency Response Plan.

The Bureau continued surveillance of the environs of nuclear power plants, and maintained cooperative programs with New Hampshire and Vermont.

Pesticide Board

The Massachusetts Pesticide Board, under the jurisdiction of the Department of Public Health, is an inter-Departmental agency with representation from the Departments of Public Health, Natural Resources, Agriculture, Public Works, the State Reclamation Board and the Division of Fisheries. There are five public members.

Regulations under amended state laws now include control of transportation, storage, sale and use of pesticides. The Commissioner of Public Health now has the power to direct local Boards of Health to carry out certain activities in emergency situations.

Massachusetts meets most of the new standards under the 1972 Federal Environmental Pesticide Control Act. Exceptions are standards relating to classification of pesticides for general and restricted use, and to the licensing of those individuals who use restricted pesticides.


ASK FOR
Maple Leaf
FRANKFURTS

FOOD AND DRUGS

Increasingly aware of the hazards to health that abound in the surroundings, whether it be flammable clothing, carelessly packaged foods or improperly marked drugs, the consumer demands more and stricter controls from the State Department of Public Health.

The Division of Food and Drugs has the responsibility for protecting the consuming public from the detrimental effects of chemicals, adulterated foods, unsanitary bedding and upholstery. The Division is also responsible for the licensing of vending machines, cold storage warehouses, and the manufacture of upholstered furniture and stuffed toys; narcotic drugs and of establishments that use animals for experimental purposes; and of slaughterhouses and meat and poultry establishments. The Division also makes analyses of all foods, drugs, liquors and poisonous substances.

The inspection of foods covers the whole distribution chain from the source of food to the ultimate purchase by the individual consumer. Included in this cycle are more than 1,800 food manufacturers and processors, approximately 1,350 food trucks, 1,225 wholesale distribution points, and 40,000 retail food outlets. Each activity represents a possible point of food contamination and requires individual surveillance by experienced inspectors.

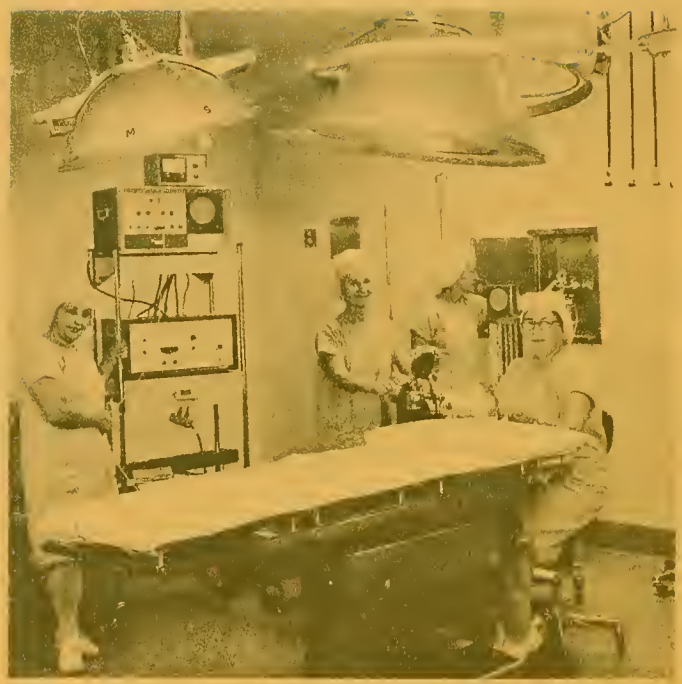
During the past year, Food and Drug inspectors supervised 113 meat and poultry wholesalers and processors. The laboratories of the Division analyzed 53,962 food and drug samples.

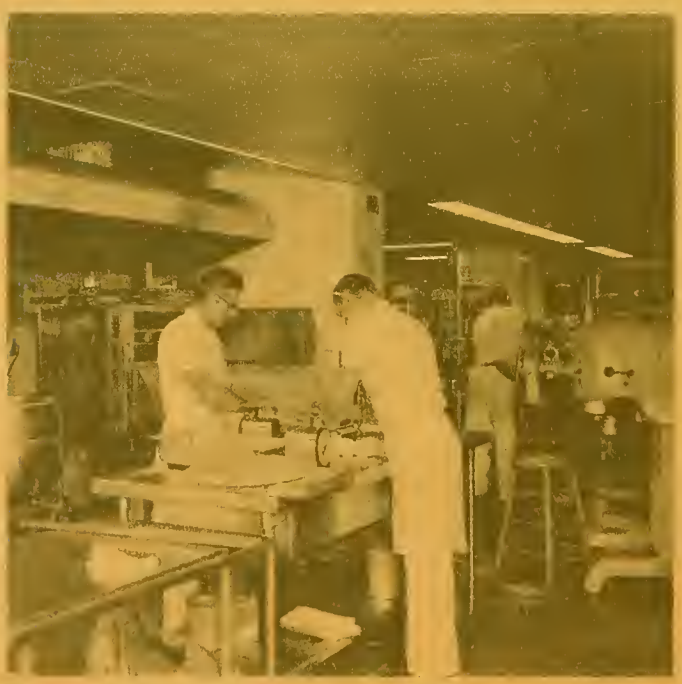
The Division wrote the Massachusetts Uniform Packaging and Labeling Regulations, which were adopted by the Public Health Council on May 22, 1973. These are among the most comprehensive food labeling regulations adopted by any state in the nation. In addition to total ingredient labeling and nutritional labeling, the regulations also require open dating to guarantee the freshness of packaged and canned foods. The regulations are presently subject to court action and will have to be reconsidered by the Public Health Council.

As a consequence of the paralytic shellfish poisoning emergency, the Division of Food and Drugs began a comprehensive survey of shellfish in Massachusetts. The Division concluded that the shellfish tagging-source identification program required better methods properly to identify and maintain identification of both shucked clams and shellstock.

The Division did a survey of the brands of evaporated milk on sale in Massachusetts and found levels of lead ranging from 0.15 to 1.30 parts per million. Samples of raw milk tested showed no lead. Investigations by the federal Food and Drug Administration at the source found that equipment used in processing evaporated milk and solder used to solder the cans were responsible for the lead contamination. The FDA established a federal guideline for lead levels in evaporated milk of not more than 0.5 parts per million. The Division has been collecting additional data with the aim of establishing a tolerance of not more than 0.2 parts per million.

The growth in the use of illicit drugs in the Commonwealth has put an additional burden on the Division, which analyzes drugs, as well as liquors and poisonous substances, for the Department of Natural Resources, and local and state law enforcement agencies. During the past fiscal year, the Drug Analysis Section analyzed 38,962 samples for local police departments in the Greater Boston Area, a decrease of more than 5,000 over the previous year. Among those drugs analyzed, however, were several very large samples, including trunkloads of marijuana that weighed up to 200 pounds.





HEALTH REGULATION

Through its programs of standard setting, inspection, licensure and review, the Department works to assure the people of Massachusetts safe health care. To the existing regulatory procedures, the Legislature added the provisions of the Determination of Need Act. This Act gives the Department responsibility for preventing unnecessary expansion of health care facilities.

At the end of fiscal 1973, the Department reorganized the Division of Medical Care into three units to correspond to the separate but interrelated activities previously carried out by five Bureaus within the Division.

HEALTH CARE STANDARDS

This program unit, one of the regulatory arms of the Department, is assuming a growing role in quality control and utilization review. It is responsible for setting the criteria in a health care system that includes more than 2,000 health facilities — hospitals, nursing homes and clinics. It is also responsible for the inspection of all diagnostic and therapeutic X-ray units in hospitals, private offices and departments of nuclear medicine.

The certification responsibilities of the unit extends into both the Medicare and Medicaid programs. Closer liaison was established with the Department of Public Welfare to assure a cooperative and coordinated effort to meet Medicaid requirements. The specialized Utilization Review Unit surveyed approximately 180 hospitals and 90 extended care facilities for the Medicare program, and 135 facilities for the Medicaid program. Upon recommendation of staff, the Public Health Council renewed the licenses for: 57 hospitals, 30 clinics, 133 nursing homes, 28 charitable homes for the aged, and 1 city or town infirmary. Under the Medicare program, 247 facilities, agencies and other providers were recommended for certification.

Aimed at upgrading standards, new Intensive Care Unit Regulations and new Nursing Services Regulations became effective in October 1972. In February 1973, the Public Health Council adopted Ambulatory Gynecological Surgery Regulations and held a public hearing in May 1973. These regulations will, at a later date, be incorporated into the final draft of regulations for clinics.

The Department began work on a new hospital classification system designed to decrease the number of classifications now in use. Ultimately, the system will be incorporated into the hospital licensure regulations. In the early part of 1973, the Department also began a program to implement the important Periodic Medical Review Program in skilled nursing homes and mental hospitals. This review is required under the Social Security Act of July 1971. The aim of the patient-centered evaluations is to appraise the quality of medical care, nursing care and social services, as well as their effectiveness in working together.

Another statewide activity that affects every consumer of health care is the Blood Bank Evaluation Program. The blood bank statistics for 1972 showed an increase in the number of donor units drawn, a reduction in the number of outdated units, and a gradual increase in the number of packed red cells used. In addition, the number of blood banks performing technical work was reduced from 158 to 145. This drop resulted from contracts with large hospital facilities to do the skilled technical work for small, low-volume ones that remained as transfusing facilities. The change helped to reduce expenses.

To reinforce the current regulations on blood, which have greatly improved patient care in Massachusetts, the Department revised the Rules and Regulations for the Use of Blood and Other Tissues for the Purpose of Transfusion, to become effective in the fall of 1973.

Radiation Control

The activities of radiological health specialists in the Radiation Control Program help to insure compliance with the Department's program to control hazards from ionizing and non-ionizing radiation sources. With the exception of color television receivers, more than 13,000 sources of radiation in the state are subject to inspection.

Staff carried out the annual surveillance of 1,600 medical diagnostic X-ray tubes, 800 dental tubes, 50 radiation therapy devices, 100 radium installations, 65 nuclear medicine departments, 100 lasers and 100 microwave diathermy units. The Program also conducted radiation control training programs for dental assistants, radiation technologists, nurses, dental and medical students. The evaluation of products involving radiation equipment or services under the Determination of Need Program became an important part of the Department's responsibilities.

A significant area of activity in the past year has been the preparation of proposed Rules and Regulations for Cancer Management in Hospitals and Clinics. The objective of these rules and regulations is to provide an acceptable level of comprehensive cancer management for every affected patient in Massachusetts.

Drug Programs

The Massachusetts Drug Formulary Commission, which functions within Health Care Standards, compiled the first statewide drug formulary in the nation. In the past year, it distributed 30,000 formularies to physicians, pharmacists, health facilities, and medical and pharmacy students in the Commonwealth. The Commission surveyed the use of generic drugs and the practice of generic prescribing by physicians, and recommended legislation to strengthen the original Formulary Law.

The Controlled Substances Registration Program has, since July 1, 1972, registered 13,000 practitioners — physicians, dentists, podiatrists and veterinarians. Applications for registration were sent to 1,296 health facilities. Next year, researchers and teachers must also be registered.

OFFICE OF HEALTH FACILITIES

On July 18, 1972, Governor Sargent signed into law Chapter 776 of the Acts of 1972, the permanent Determination of Need Law. This placed responsibility for determination of need activities within the Department of Public Health. The purpose of the legislation was to prevent unnecessary building of new, or expansion of, existing health facilities, and to avoid wasteful duplication of services and facilities. The legislation also sought to ensure easy access to, and good quality of, health care, and to control spiraling health costs. The Department consolidated all Determination of Need proceedings into one process to cover the following situations:

1. The establishment or amendment of the articles of organization of a corporation that requires from the Department a license as a health care facility.
2. A substantial capital expenditure ($100,000 or more) or a substantial change in the number of beds (five or more), or in the types of services, of a health care facility.
3. Issuance of an original license to operate as a hospital or clinic.

Provisions in the law allow for recommendations from the Statewide Comprehensive Health Planning (a) Agency, the Area Comprehensive Health Planning (b) Agencies and from groups of ten taxpapers. Chapter 776 also established the Health Facilities Appeals Board in the Executive Office of Human Services to hear appeals from decisions of the Public Health Council.

In the first 14 months of the permanent Determination of Need Program through August 31, 1973 (this included holdovers from June 1972), the Public Health Council acted upon 167 applications (Table 7).

The estimated cost savings on acute care beds in general hospitals alone came to $7,050,000 in capital outlay, and $7,452,000 per year in operating costs.

Table 7

DETERMINATION OF NEED APPLICATIONS

June 1, 1972 - August 31, 1973

Total Beds by Category

	Existing in facilities requesting a certificate of need when application was submitted.*	App'd by PHC (to exist in these facilities in future)	Net Change
GENERAL HOSPITALS			
Acute Medical/Surgical	1,946	1,777	—169
Intensive Care Units	125	120	— 5
Maternity	245	228	−17
Pediatrics	229	213	−16
Special (Alcohol, diabetes)	52	70	+18
Extended Care Units	0	0	0
Psychiatric	21	117	+96
TOTAL	2,618	2,525	−93
NURSING HOMES			
Level			
I	—	40	+40
II	224	294	+70
I/II	1,624	3,340	+1,716
III	2,131	3,259	+1,128
IV	944	3,176	+2,232
Pediatric	0	168	+168
TOTAL	4,923	10,277	+5,354
CHRONIC DISEASE HOSPITALS			
Rehabilitation and Long-term Care	173	173	0

*Refers only to the beds existing in facilities maintained by applicants for Determination of Need, NOT total beds for the state.

Health Facility Planning

Within the Office of Health Facilities Development, the staff of Health Facility Planning reviewed all Determination of Need applications before presentation to the Public Health Council for decision.

Personnel also administered the Hill-Burton Program and reviewed requests for FHA funds. Fifteen facilities received over $4 million in grants and $18 million in loans in fiscal 1972.

Early in 1973, the Commissioner of Public Health appointed a Health Policy Development Group (HPDG) composed of leading providers and consumers in the health care field to act in an advisory role to the Public Health Council and to recommend specific guidelines and standards on health policy issues. Appointed as members were: Robert Biblo, Thomas D. Cabot, Andrew Jessiman, M.D., Mrs. Frances Miller, Lee B. Macht, M.D., and Jean R. Steel, R.N.

An extension of the Hill-Burton Advisory Council, the HPDG set up two task forces: one to study post-hospital care; the other, to devise a state plan for free care compliance under Hill-Burton regulations.

HEALTH PLANNING AND STATISTICS

The Office of Health Planning and Statistics was organized to centralize the various information centers built up within specific units to monitor programs. The aim was to avoid duplication, to reduce costs of data processing, and to enhance the use of data and analyses. The following units were merged into OHPS: The Office of Planning, the Office of Health Research, the Office of Emergency Medical Services, and the Information Systems Unit. To these was added the Massachusetts Cooperative Statistical Project, the so-called Federal-State-Local (FSL) Project.

The Information Systems Unit greatly expanded its scope and served as a vital back-up system for many of the activities of the Department, which include:

- Blood Bank Report — Monitoring of blood bank resources and blood usage through 158 monthly reports from hospital blood banks.
- Controlled Substances Act — Approximately 21,000 computerized mailing addresses of individuals and institutions.
- Annual Hospital Statistical Report — Revised to gather more complete information on bed utilization and ambulatory services in hospitals.
- Inventories of Facilities — Lists of facilities licensed by the Department expanded to include accreditation and proficiency testing programs of all laboratories in the state, and of certified and dual purpose ambulances.
- Banyl System — A computerized tabulation of "beds approved but not yet licensed" for the Department's planners working on the Determination of Need program.

EXPENDITURE REPORT
DEPARTMENT OF PUBLIC HEALTH
JULY 1, 1972 - JUNE 30, 1973

I HEALTH PROTECTION		STATE	FEDERAL	TOTAL
A. HEALTH SURVEILLANCE AND DISEASE CONTROL				
1. Tuberculosis Control		$3,682,732.52	$ 145,066.95	$3,827,799.47
2. Communicable Diseases		1,663,461.98	263,472.32	1,926,934.30
3. State Laboratory Institute		2,084,358.62	240,637.57	2,324,996.19
B. ENVIRONMENTAL HEALTH		1,746,968.65	958,026.33	2,704,994.98
C. FOOD AND DRUGS		1,611,880.43	62,385.99	1,674,266.42
II HEALTH REGULATION				
1. Health Care Standards		830,507.31	896,534.59	1,727,041.90
2. Health Planning and Statistics		636,616.36	257,921.93	894,538.29
3. Certificate of Need		162,356.55	72,946.10	235,302.65
III HEALTH SERVICES				
1. Alcoholism		2,024,188.77	280,567.00	2,304,755.77
2. Family Health Services		2,854,187.39	1,290,275.10	4,144,462.49
3. Regional Offices		324,256.72	632,288.53	956,545.25
4. Hospitals		33,336,589.49	—	33,336,589.49
Lakeville	3,651,978.99			
Lemuel Shattuck	8,850,068.90			
Mass. Hospital School	2,994,438.77			
Pondville	3,400,167.15			
Rutland Heights	3,157,125.45			
Tewksbury	8,457,662.75			
Western Massachusetts	2,825,147.48			
IV COMMISSIONER'S OFFICE AND CENTRAL ADMINISTRATION		740,064.29	1,030,092.91	1,770,157.20
TOTALS		$51,698,169.08	$6,130,215.32	$57,828,384.40

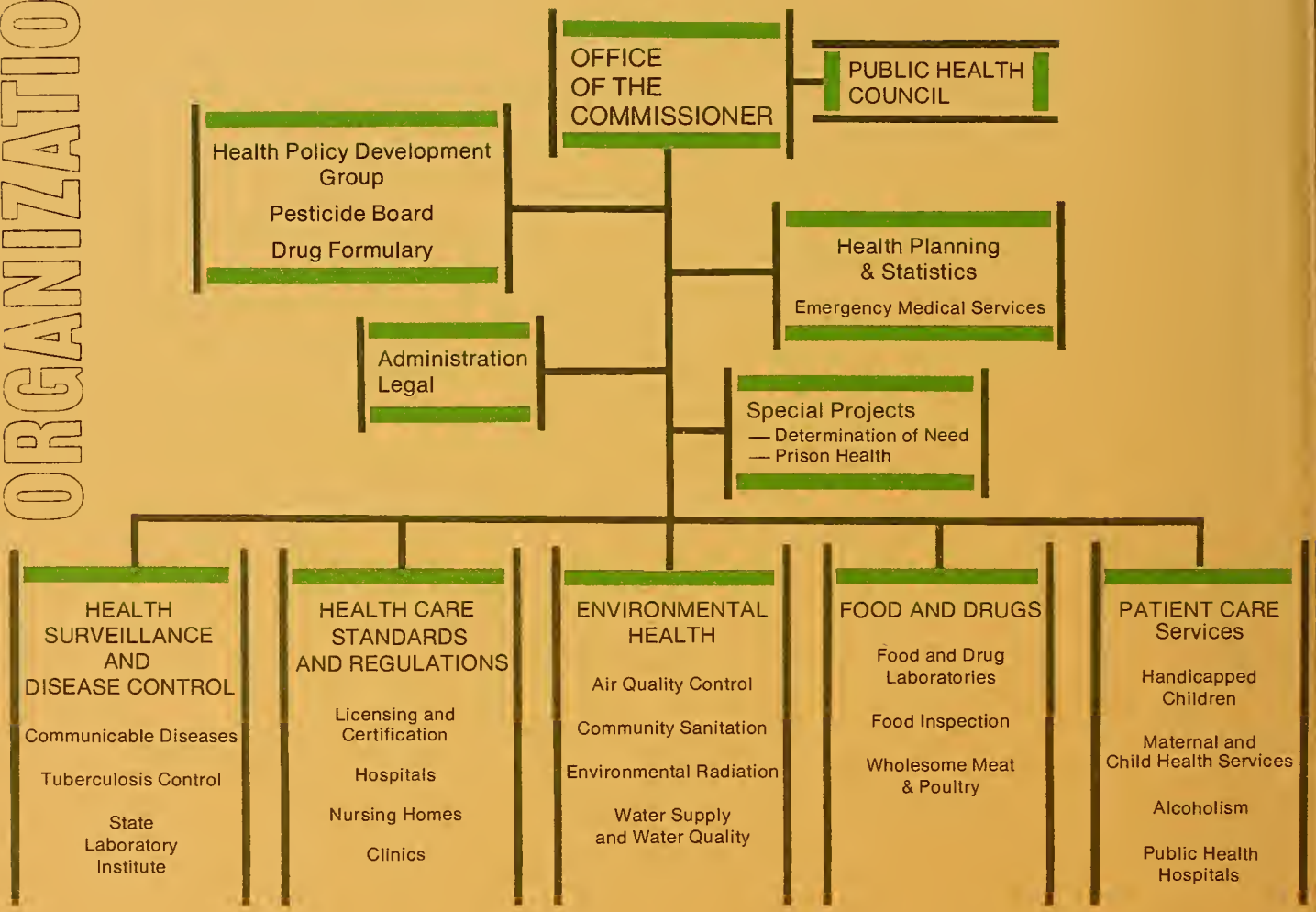
THE YEAR AHEAD

The improvement of the quality of medical care through the strengthening of the regulatory functions of the Department remains a top priority for the year ahead. At the same time, the Department maintains its vital role in providing basic preventive and protective services throughout the state.

Whatever organizational changes may take place, the purpose behind the modifications remains unaltered — to update the programs of the Department of Public Health; to foster improved patterns of care; and to guarantee the most effective programs to protect the health of the people of the Commonwealth.

MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

ORGANIZATION



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