RECENT ADVANCES IN CANCER CONTROL

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Cancer is on the increase throughout the civilized world. When eight of every 100 men and eleven of every 100 women who reach the age of 35 years are destined to die of cancer, and when the yearly toll of cancer dead in the United States of America is almost 50 per cent as great as the total mortal fatalities of this country in World War II, then it is time for the public as well as for the medical profession to awaken to the serious menace of this disease. More people die of cancer than are killed by automobiles, streetcars, railroads, civilian aviation, mining, drowning, homicides and suicides combined.

In 1900, the average life expectancy of every newborn babe was only 34 years; at that time cancer occupied sixth place as a major cause of death in the U. S. A. In 1945, the average life expectancy of the newborn infant approaches 65 years; in this interval of forty-five years, the relative incidence of cancer has increased until now it holds second place among the "captains of the men of death", being exceeded only by heart disease. The lessening of the hazards of childbirth, improvement in infant welfare, control of contagious diseases, prevention and early recognition of tuberculosis, chemotherapeutic treatment of pneumonia and other infections, relief of industrial dangers and postponement of the degenerative diseases of middle life have conjoined to permit our population to live to a greater average age at which cancer is more frequent. On this account now, and inevitably in the future, cancer promises to demand ever-increasing attention by public health authorities and physicians interested in the cause, prevention and treatment of this malady.

THE PROGRAM FOR CANCER CONTROL

A. Education of the Laity
1. Missionary efforts of individual physicians and nurses.
2. American Cancer Society.
3. Women's Field Army.
4. Instruction to Students of Biology in High Schools, Academies and Colleges.

B. Education of the Medical Profession
1. Undergraduate instruction in schools of medicine.
2. Graduate training in Neoplastic Diseases.
3. Postgraduate short courses, round table conferences and cancer teaching days, held under the auspices of the American College of Surgeons, American Radium Society and Cancer Divisions of State Boards of Health.
4. Medical Journals
   (a) Articles in general and special journals.
   (b) Journal of Cancer Research.
   (c) Journal of the National Cancer Institute.
   (d) Bulletin of the American Cancer Society.

C. Early Diagnosis of Cancer and Allied Diseases
1. Depends fundamentally on continued education of the laity and medical profession.
2. Cancer prevention and cancer detection clinics.
3. Establishment of tumor diagnostic groups in general hospitals.
4. Cancer should be made a reportable disease.
5. Essential to have universally available such diagnostic aids as endoscopic facilities, radiographic apparatus and competent pathologists.

D. Treatment of Cancer
1. Improvement in individual efforts of general surgeons and radiologists.
2. Tumor clinics in general hospitals, the organization, equipment, experience and personnel of which, should satisfy the minimal requirements of the Cancer Council of the American College of Surgeons.

1. Federal and State Aid.
2. National Cancer Institute (U. S. A.)
3. Sloan-Kettering Research Institute of the Memorial Cancer Center.
4. American Association for Cancer Research.
5. Philanthropic foundations for the study of cancer. (American)
   (a) Anna Fuller Fund.
   (b) Finney-Howell Research Foundation, Inc.
   (c) International Cancer Research Foundation
   (d) Jane Coffin Childs Memorial Fund for Medical Research.

THE ECONOMICS OF CANCER CONTROL

More than four-fifths of Americans who have cancer are more than 40 years of age. Every community owes a debt to the adult members of the population who have rendered service of varying degrees of effectiveness for the major portion of their lives. Civilization and commerce are prone to push aside the senior adults in favor of those in the younger age groups, but no well-ordered community conscience will deny the right of restoration to health of those who have served the community so long.

One hundred and sixty thousand citizens of the United States of America die yearly of cancer. The loss of earning power of those who died in one year is 35,200,000 working days. In the cost of hospitalization alone, a minimal estimate would be more than 12 million dollars. The economic loss suffered through these untimely deaths as based on estimated future earning capacity would reach the stupendous sum of $750,000,000.

These figures offer cogent argument for increased expenditures toward cancer research, diagnosis and treatment. The amount of money spent on cancer research in the United States during 1944 was approximately fifty cents for each patient afflicted with the disease, whereas three hundred dollars was the average amount per patient spent for research on poliomyelitis. This comparison is not intended to suggest a deflection of funds from the study of infantile paralysis to cancer research, but only to stress the relative lack of financial support for the great and urgent problems awaiting investigations of the cause and cure of cancer.

One of our large super-dreadnought battleships costs our government eighty million dollars, which sum would be sufficient to build and equip fifteen great cancer institutes throughout the United States. I have been told that one great American industrial concern has allocated thirty million dollars and assigned five thousand scientists and employees for the solution of their research problems. As much as this accomplishment may contribute to the comfort, health and economic
welfare of the people, its importance pales into insignificance when compared with
the great value of solving the problems of cancer and possibly eradicating our
second major cause of death.

CULPABILITY FOR DELAY IN THE DIAGNOSIS AND TREATMENT
OF CANCER

In 1938, the author made a study of 1,000 patients with cancer in an effort to
determine the responsibility for the delay in establishing a correct diagnosis and
in instituting appropriate treatment. These patients were selected at random
from two sources: a tumor clinic in a general hospital and an institute devoted
solely to the care of cancer patients. Of the total number of patients, the patient
alone was responsible for the delay in 44.3 per cent; the patient and the physician
in 18.0 per cent; the physician alone in 17.0 per cent, and in only 20.7 per cent was
there no delay on the part of either. From this information, it can be seen that
in 35 per cent of the cases, the physician was either ignorant of the character of
the disease or lax in his sense of duty to the patient, remedial defects which
should be speedily rectified. The judgment is not harsh or unfair, inasmuch as we
permitted a one month leeway or interval during which the diagnosis could have
been made before we classified such a delay as unjustifiable.

In reviewing the results of an educational program of fifteen years conducted
in the state of Massachusetts, an encouraging fact was the improvement, i.e.,
shortening, of the delay from 6.5 months to 4.6 months. Throughout the country,
it has been generally evident that the carefully planned national awareness of
cancer and its curability has been partly realized. On the basis of their statistical
studies the Metropolitan Life Insurance Company reported that more people, and
especially women, are seeking diagnosis earlier in the course of the disease.

CANCER PREVENTION CLINICS

In May 1937, Dr. Elise S. L'Esperance organized the first Cancer Prevention
Clinic as a unit of the Kate Depew Strang Tumor Clinic which had been estab-
lished in 1933 at the New York Infirmary for Women and Children. The ultimate
goal desired in a cancer prevention clinic is to influence individuals to accept
periodic health examinations as the best means of reducing mortality in cancer
and possibly a host of other diseases. Dr. L'Esperance organized a second cancer
prevention clinic at the Memorial Hospital in November 1940. These preven-
tion clinics are operated by the same well-trained medical staff as functions in the
tumor diagnostic and treatment departments. It only differs from these depart-
ments in that normal or presumably normal persons are encouraged to pay regular
visits for periodic cancer detection examinations.

The examinations are complete and include a thorough study of the family
history, personal history, present health status, complete physical examination,
including the body inlets and outlets, with endoscopic procedures as indicated,
roentgenograms of the chest and gastro-intestinal tract and pertinent laboratory
studies. For example, the study of vaginal smears by the Papanicolau method is
routinely done on women to detect a possible early endometrial or even cervical
uterine cancer. The patient is instructed to revisit the clinic within six months
or not later than one year or at any time during the interval if an unusual or per-
sistent symptom develops.

Of 3,611 individuals examined in the two Strang prevention clinics, 6.5 per cent
were found to have cancer. A significant finding was the discovery that 1.5 per
cent of the women who came without complaints or symptoms were found to have
early cancer. Dr. L'Esperance has rightly concluded that if an increase in cancer incidence is the price one must pay for longevity, then the fortunate people who reach middle life must assume a new personal responsibility toward the detection of early cancer in themselves.

In 1938, Dr. Catherine MacFarlane organized a special cancer prevention clinic in the Women's Medical College of Pennsylvania, originally to determine the value of periodic pelvic examinations in discovering early uterine cancer. It was decided later to include examination of the breasts. One thousand women without any symptoms of cancer volunteered to come for this examination twice a year for five years; of the total number, 623 women continued throughout the specified quinquennial period. Three early cancers of the uterus were recognized and successfully treated in this group; there were 442 inflammatory lesions (some possibly precancerous) of the cervix treated in this series of patients. Five mammary cancers were detected during the examination of the breasts of 2,105 women.

The success of these two clinics led quickly to the organization of others in various cities. The Women's and Children's Hospital in Chicago started such a group. The International Cancer Research Foundation and Mr. Donner of Philadelphia sponsored the opening of five Health Maintenance Cancer Prevention Clinics in five of the large hospitals in that city. In Los Angeles, California, 504 patients were examined during the first five months which the clinic was functioning and of these, 134 were found to have untreated cancer. A similar experience occurred during the first three months of the Milwaukee Cancer Detection Clinic, where of 798 patients, 41 had cancer, 18 of which had not been previously diagnosed. Under the auspices of the Field Army of the American Cancer Society, two such clinics were established in mills in Sylacauga and Talledega, Alabama; these were the first clinics made available to industrial workers.

THE AMERICAN CANCER SOCIETY AND THE WOMEN'S FIELD ARMY

About thirty years ago, the American Society for the Control of Cancer was organized for the purpose of presenting to the public factual and authoritative information about cancer. The great lay audience of American citizens became familiar with the warning signs and symptoms of early cancer through the media of lectures, booklets, magazine articles, educational motion pictures and radio talks by qualified physicians. The original purpose of the society was solely educational and to achieve this object it sought and enrolled in its membership not only physicians, nurses and public health workers, but laymen in all walks of life and of all vocations, the only requirement being the necessary interest, zeal and industry to disseminate the pertinent facts about the means of early diagnosis and the good news concerning the possible curability of cancer. It is my opinion that the very great betterment in end-results or higher cure rates which are now consistently reported in medical journals can be accredited fully as much to the efforts of this Society as to improvements in surgical and radiotherapeutic procedures.

Under the leadership of Dr. C. C. Little, the Director, the name has been changed to the American Cancer Society and the objectives of the organization have been expanded to include support of organized cancer research, the care of hopeless cancer patients, financial aid for the diagnosis and treatment of cancer and material contributions in the matter of diagnostic and therapeutic equipment for hospitals and laboratories.

The American Cancer Society through its national office has separate, active state groups and in some instances county and city cancer committees, all of which are integrated in the broad scope of activities of the national organization.
The subdivision of the work into such subsidiary groups with local officers assures continuous effectiveness.

The American Cancer Society sponsored a national organization of women called the Women’s Field Army, which has enrolled thousands of women under state commanders. It is impossible to overestimate the effective good that has been accomplished by these eager, altruistic groups of women under inspired leadership. Their aim has been to teach every man, woman and child in the United States the fundamental facts about cancer, the warning signs and symptoms requiring professional advice, the welcome information about the curability of cancer and also to dispel the bogies, fears and superstitions about this malady which have obscured the lay mind.

The Westchester County (New York) Cancer Committee was first to realize the importance of applying its educational program to younger age groups and accomplished this through the biology departments of the high schools and academies throughout the county. A small bound book or primer on cancer was written and distributed without cost to all high school students in the county. The New York City Cancer Committee has recently seconded the wisdom of this plan, so that academic and college students in the city are provided with authoritative information about cancer through the use of lectures and free books.

Need for a Pan-American Cancer Control Society. The joint collaboration of lay citizens and physicians in nationwide educational efforts in cancer control is not peculiar to the United States of America. Our sister nations in the western hemisphere are fully cognizant of the importance of this great public health problem and efficient and well-planned societies of this character are already functioning with success in numerous Latin-American countries. The Tumor Clinic of the Institute of Surgery in Buenos Aires, under the directorship of Professor Oscar Ivanissevich, has been waging an aggressive educational campaign to acquaint the public with facts about cancer. The Chilean League against Cancer founded by Dr. Leonardo Guzman, Director of the Radium Institute of Santiago, is a model organization and in its scope and plan of activities is a South American counterpart of our own American Cancer Society. The Cuban Cancer Society, so efficiently managed by Dr. Puente Duany and his colleagues, is another example and similar plans are functioning in Mexico and Panama. The problem of cancer control is so fundamental with regard to the health and welfare of any nation that it should be recognized and plans made to coordinate these efforts by a great international joint program. A prospective Pan American Cancer Control Society would not jeopardize nor influence the autonomy of any national group, but by the free interchange of ideas, plans, statistical data and end-results, could add materially to the mutual benefit of all. Certainly the American College of Surgeons, whose Fellowmemberships are open to surgeons of all the Americas, and the Red Cross, which is an international body with local national chapters or units, furnish adequate proof of the wisdom of such international efforts. I vouch for the fact that in my own experience I have been richly rewarded by ideas, suggestions, procedures and stimulation from my Central and South American colleagues.

The Cancer Control Program of the American College of Surgeons

The great good which resulted from the planned efforts of the American Cancer Society in educating the lay public has been duplicated by the American College of Surgeons in their campaigns to improve professional achievements in the diagnosis and treatment of cancer. Under the leadership of Doctors Bowman C. Crowell and Malcolm T. MacEachern, Associate Directors of the Col-
lege, a cancer council or committee was appointed from the Fellows to guide the College in this work. Because of previous long experience in hospital standardization in the United States, it was not difficult to evaluate the facilities for the diagnosis and treatment of cancer in any community. Beginning in 1930, plans and principles were gradually elaborated for the organization of tumor clinics in general hospitals. The committee formulated certain basic or minimal requirements for tumor clinics of two types: (a) those offering diagnosis only, and (b) those qualifying for both diagnosis and treatment. Printed instructions in booklets, supplemented by consultative advice, were given to the hospitals wishing to concentrate and unify their work in cancer diagnosis and treatment. Plans for the organization of the clinic, arrangement of clinic facilities, types and strength of x-ray therapy apparatus, quantity of radium necessary and manner of its distribution, selection and duties of the personnel, relation of the tumor clinic to the hospital as a whole, to the doctors and citizens of the community, the social service obligations of the clinic, the case record systems, the follow-up care and observation of the patients and the analysis and criticism of end-results were worked out in detail. Finally these clinics were all inspected and if the requirements of the College were fulfilled, they were placed on the approved or accredited list of tumor clinics in general hospitals. This scheme led to a rapid popularization of the tumor clinic idea and furnished an incentive to excel. At the present time there are 36 diagnostic tumor clinics and more than 281 tumor clinics so approved for both diagnosis and treatment in general hospitals in the United States. Through 1941 “there were approved cancer clinics in 25.5 per cent of the approved general hospitals of 100 beds and over in the United States and Canada.” The American College of Surgeons further reports:

- Cancer hospitals fully approved: 14
- Cancer clinics fully approved: 274
- Departmental cancer clinics fully approved: 7
- Cancer clinics provisionally approved: 45
- Cancer diagnostic clinics fully approved: 36
- Total cancer clinics approved: 376
- Other existing cancer clinics: 69
- Other contemplated cancer clinics: 38

The annual congress and the several sectional convocations of the American College of Surgeons laid particular emphasis on the subject of cancer by special programs, round table conferences, radio talks and evening meetings for lectures to the laity. Individual case record forms for each histological and regional type of cancer were designed, printed and furnished at cost to tumor clinics and hospitals as a means of securing adequate data for future valuable analyses. A central file has been maintained for recording five-year definitive cures of cancer and this collection now totals many thousands of histologically verified cases, thereby offering indisputable proof to those skeptics, both lay and medical, who still doubt the possible curability of cancer.

For many years, the library of the College encouraged the submission of complete case records (including roentgenograms and microscopic slides) of all bone tumors. These case records in the so-called Codman bone sarcoma registry were submitted to juries of competent pathologists and authorities on bone tumors for their classification and opinions. The result of this survey is that now a satisfactory classification has been adopted and the cumulative data has rewarded us with a rather exact knowledge of these tumors, especially the enigmatical malignant bone tumors, which in the past constituted the most confusing chapter in the entire category of neoplastic diseases.
GRADUATE TRAINING IN THE DIAGNOSIS AND TREATMENT OF NEOPLASTIC DISEASES

The greatest number of cancers are not treated by cancer specialists just as the majority of patients with heart disease are not cared for by cardiologists. Many cancers of the skin are treated by dermatologists, cancers of the female genitalia by gynecologists, cancers of the male genitalia by urologists, cancers of the bone by orthopedists, cancers of the nose, throat and oral cavity by otorhinolaryngologists and others by general surgeons and therapeutic radiologists. There is a growing recognition throughout the world of the need for physicians and surgeons intensively trained in the diagnosis and treatment of neoplastic diseases. Men and women so trained are now chiefly occupied in key positions in various cancer institutes and tumor clinics. It is to be anticipated that ultimately, a significant number of these specialists will be trained as to become attached to the large general hospitals.

As an example of the character of graduate study deemed proper in the training of a cancer specialist, the program of the Memorial Hospital for Cancer and Allied Diseases may be presented. A surgical residency of two years is considered a prerequisite for the initial year of service in the hospital. This preliminary year, during which the graduate is classified as an assistant resident, is so planned as to give one month's rotating experience in each of the various services of the hospital; such as the admitting office, medical service, head and neck service, pathology, gynecological service, x-ray department, genito-urinary service, rectal service, gastric service, breast service, bone service and mixed tumor service.

From this group of assistant residents, a few men and women are selected for Fellowships of three years' duration; the first two years of which are devoted to a thorough study of the nature and etiology of neoplastic diseases, the methods of diagnosis including all endoscopic procedures and roentgenographic study, a period of supervised review of the gross and microscopic pathological anatomy of benign and malignant tumors and familiarity and experience with radium and x-ray therapy. The third year of the Fellowship is spent as Resident Surgeon in the hospital, during which time the fellow becomes adept in the minor and major surgical procedures commonly used in the treatment of cancer and in the pre- and post-operative care of the patient. During these four years of study, there is ample opportunity to pursue research studies, both experimental and clinical, under proper guidance.

These graduate Fellows have been distributed throughout the United States where they occupy important positions in hospitals, tumor clinics and medical schools. The international distribution of their influence may be appreciated by a recital of some of their locations: Peiping Union Medical College in China; Tata Cancer Institute in Bombay, India; State Cancer Clinic in Regina, Saskatchewan, Canada; Cancer Institute of the General Hospital of the University of Mexico (three graduates); Medical School of the University of Guatemala; Tumor Clinic of San Juan de Dios Hospital in Costa Rica (two graduates); University in Caracas, Venezuela; Radiological Institute in Lima, Peru; Cancer Institute in Santiago, Chile (two graduates); University of Rio de Janeiro, Brazil, and Cancer Institute of São Paulo, Brazil.

The Rockefeller Foundation through grants to Memorial Hospital has financed many of these Fellowships during the past eighteen years. The National Cancer Institute has also established Traineeships of one to three years' duration for well-qualified young physicians, surgeons, radiologists and pathologists who have an aptitude for and desire graduate training in this special field. The Pan American Sanitary Bureau and the Commonwealth Fund have been especially
generous and good-neighborly in providing means and opportunities for young Latin American students to pursue this type of graduate education in the United States.

CANCER INSTITUTES AND FEDERAL PARTICIPATION IN THE PUBLIC HEALTH ASPECTS OF THE CANCER PROBLEM

In Sweden, almost all patients with cancer are treated in the two government-subsidized cancer institutes. The size of the country and the concentration of the population are such that this arrangement is feasible and desirable. The control of the patients during and after treatment is almost absolute, as the state will pay even the round trip costs of travel to these cancer centers from any part of the kingdom. The Radiumhemmet in Stockholm has been one of the important fountainheads from which new and exact methods of radiation therapy have emanated.

In France, antinecancer centers were situated in various cities with due regard to geographical distribution. The most famous of these is the Radium Institute of the University of Paris, eponymically referred to as the Curie Institute, because Madame Curie's physical research laboratory was affiliated with the clinical buildings through the Curie Foundation. From this center have come some of the greatest principles of modern radiation therapy through the discoveries of Professors Claude Regaud, Antoine Lacassagne, O. Monod, and Henri Coutard.

In Portugal, the Oncological Institute of Lisbon under the Directorship of Professor F. Gentil, has continued to grow and now is one of the world's best centers for cancer diagnosis and treatment. It is also busily engaged in an educational program for the laity.

In Italy, the Victor Emanuel Institute of Milan was active before World War II, but no information is available concerning the present status.

The Tata Cancer Institute in Bombay, India is a privately endowed cancer hospital, the first of its kind in India. The physicist, radiologists, surgeon and two of the visiting or foreign surgical consultants working there, have been trained in the United States.

In Argentina, there are three active cancer diagnostic and treatment centers in Buenos Aires alone, and also facilities in Rosario and Cordoba. The tumor clinic of the Surgical Institute of the University of Buenos Aires has an expert staff and the advantages of teaching facilities in the School of Medicine. The Radiological Institute under the direction of Professor Saralegui is concerned chiefly with clinical and research problems about radiation therapy. The large and heavily endowed Cancer Institute, of which Professor Angel Roffo is the Director, has a large number of buildings including hospital facilities, radiological departments and research laboratories.

In Chile, the Radium Institute of Santiago, under Dr. Leonardo Guzman, does excellent clinical work and is the center for the Chilean League against Cancer. It is planned to enlarge and renovate this important cancer center in the near future.

In Paraguay, the government, in conjunction with the National University School of Medicine, is building and organizing a cancer division in the hospital. Dr. Manuel Riveros, Professor of Surgery, has recently made a thorough survey of the cancer incidence in Paraguay. Radium and x-ray therapy equipment has recently been purchased.

In Peru, a new Radiation Therapy Institute has been built under the direction of Dr. Constantino Carvallo, when he was minister of Public Health. The design and organization of the Institute, which is in Lima, are modeled somewhat after the Memorial Hospital in New York.
In Puerto Rico one of the best programs for cancer control in the Americas is the one organized by Dr. González Martínez and which is still under his guidance.

In Panama, a small but efficient Cancer Institute has long been in existence. It is supported through governmental aid. Dr. Ernesto Zubieta has recently made some important comparisons of cancer incidence in Panama with the relative frequency of various cancers in other countries. A valuable contribution from this hospital has been the results of extensive clinical research on cancer of the uterus.

In Habana, Cuba, the Institute under the renowned Dr. Puente Duany, sets a high standard of excellence. The annual Cuban Cancer Congress brings together many of the leading cancer authorities of the Western Hemisphere. The techniques of radiation therapy are modeled somewhat after the Radium Institute of the University of Paris.

In Costa Rica, the two leading hospitals, namely San Juan de Dios and the Social Security Hospitals, have organized tumor clinics and are supported by state subsidies. During the Presidency of Dr. R. A. Calderon Guardia, a tax was levied on imported cement, the entire amount of this revenue being utilized for cancer diagnosis and treatment. Adequate quantities of radium and suitable x-ray apparatus have recently been purchased. Three well-qualified young physicians have had Fellowship appointments and Ex-President Calderon Guardia, himself a surgeon, has taken graduate study at the Memorial Hospital for Cancer in New York.

In Mexico, the Minister of Health, Dr. Gustavo Baz, who is also Professor of Surgery in the School of Medicine, has been instrumental in constructing hospitals in all the states of Mexico and with this, as a natural accompaniment of the health program, has been an appreciation of and provisions for education of the public concerning cancer and the necessary facilities for cancer therapy. The central unit in this wide hospital plan is the new Cancer Institute, which is a part of the General Hospital of Mexico City. This small cancer hospital is well-designed and staffed by a group of exceptionally competent and well-trained surgeons, radiologists and pathologists. The annual Cancer Congress usually convenes in Guadalajara.

1 In Havana, there is also an Institute of Cancer, under the able Directorship of Dr. Emilio Martínez.

2 In other countries not mentioned here they have cancer institutions and associations and important work is carried out. For instance, in Brazil, the National Department of Public Health has a National Cancer Service which operates a cancer center in Rio Janeiro and is planning to open a cancer institution. In different Brazilian states and specially in Rio Grande do Sul, São Paulo and Bahia, local organizations have been incorporated to the cancer campaign. In Recife, Pernambuco, an Institute of Radiotherapy is in operation since 1941 under Dr. Waldemir Miranda. In São Paulo it is expected to have soon in operation a cancer institute. In Colombia the National Radium Institute is in operation since 1938 as part of the National University in Bogotá, its Director being Dr. José Vicente Huertas. In the Dominican Republic the organization of a Cancer Institute is already a fact. In Uruguay the Institute of Radiology and Center of Cancer Control in Montevideo, whose Director until a short time ago was the noted Dr. Carlos Butler, has specialized in training in radiotherapy. There is in addition at Montevideo, an Institute of Gynecological Radium-Therapy. In Venezuela there has been in operation for a number of years, the "Luis Razetti" Cancer Institute, which recently has been serving the Social Security Fund. In Bolivia, plans for cancer control including opening of an Institute were submitted in 1942 to the Ministry of Public Health.—Red.
State Cancer Control Programs in the United States. Fourteen of the forty-eight states in this country have departments in the state government devoting full time to cancer control. In one state, Texas, the work is under the control of the State University, which has also erected a hospital for cancer research at Houston. In three states (Missouri, New Hampshire and Vermont) there are Cancer Commissions to guide the effort, and in the other ten states the work is delegated to the State Department of Health. In the states of Georgia, Missouri (Ellis Fischel Hospital) and New York (State Institute for the Study of Malignant Diseases, Buffalo) there are state hospitals to care for the indigent cancer patients.

In 1937, a Commission was appointed by the Legislature of the State of New York “to study the cancer situation, as it existed in the state, to examine the facilities available, and to make recommendations as to how the problem could best be attacked.” Legislation in New York State reorganized the Division of Cancer Control and made cancer a reportable disease (exclusive of New York City in which public health is separately administered). Doctors Louis C. Kress and Morton L. Levin, Director and Assistant Director of the Division of Cancer Control, have exercised the functions of this law by the dissemination of information about cancer to physicians and to the public, by statistical and epidemiologic analyses of reports from physicians, hospitals and laboratories and by the encouragement of general hospitals throughout the state to establish and maintain tumor clinics of the highest quality. When the work was initiated in 1939, there were 23 active tumor clinics in upstate New York and by June, 1943 there were 37 actively functioning clinics in the same area, a gain of 60 percent in less than five years. Cancer Teaching Days throughout the state have evoked great interest and have been well attended.

War Veterans' hospitals in the United States already have a bed occupancy approaching 1500 cancer cases and in two to four decades the number may approach three to five thousand beds occupied by cancer patients, as the veterans of World War II reach the age of greater cancer incidence. The Veterans' Facility (hospital) at Hines, Illinois is used exclusively for cancer patients and has a present bed capacity of 500 with a new cancer hospital of 600 additional beds nearing completion. Veterans of any war in which the United States of America has engaged are eligible to enter these hospitals for cancer diagnosis and treatment.

National Cancer Institute and National Advisory Council. An act of the United States Congress on August 5, 1937, created the National Cancer Institute in the United States Public Health Service and a National Advisory Cancer Council. The institute, a division of the National Institute of Health has been erected in Bethesda, Maryland. In the words of Dr. R. R. Spencer, Chief of the Institute, the act empowered the Surgeon General “to (a) conduct, assist and foster cancer research, (b) provide training and instruction in the diagnosis and treatment of cancer, (c) provide research fellowships in the Institute, (d) secure for the Institute consultative services and advice of cancer experts from the United States and abroad, (e) cooperate with the state health agencies in the prevention, control and eradication of cancer, and (f) procure, use and lend radium to other agencies and institutions.” The National Advisory Cancer Council was authorized “to (a) review research projects or programs submitted to it or initiated by it relative to the study of the cause, prevention or methods of diagnosis and treatment of cancer, (b) collect information and make it available to scientists and the public, and (c) review applications for grants-in-aid for research and to certify to the Surgeon General its approval of grants for such projects which show promise.” Dr. Spencer from the background of his wide experience in the problems, clinical and experimental, incident to neoplastic diseases, has summarized the means by which
the federal agency he represents can best be of service, viz., “the education of the
public, the postgraduate education of physicians in the diagnosis and treatment of
cancer, the loan of radium to hospitals and tumor clinics, the assisting of the states
in setting up full-time departments of cancer control in the respective state Boards
of Health, advice and guidance to universities and medical schools desiring to
establish departments of oncology or cancer biology, the establishment of pre-
vention and case finding clinics, grants-in-aid to various institutions and indi-
viduals for cancer research, promotion of conferences on the various phases of the
cancer problem, and the continuation of long-time cooperative studies in the
fundamentals of cancer biology.”

Memorial Cancer Center in New York City. In 1884 a group of public-spirited
New York citizens organized a hospital for the care of cancer patients. This
hospital became known as the Memorial Hospital for the Treatment of Cancer and
Allied Diseases. It became a great center for surgical specialization in cancer
therapy, research both physical and clinical on x-rays and radium, the training of
young men in all aspects of cancer, the education of the laity, fundamental re-
search on the causal and formal genesis of cancer, etc. A children's ward is used
exclusively for the care of infants and children. Through the generosity and
vision of Mr. Alfred P. Sloan, a new research institute is to be built for cancer re-
search and funds have been provided to enable the new institute to pursue its
intensive research on cancer for a period of ten years. Through the Sloan Found-
ation also, it will be possible to apply the vast resources of industrial research to
many of the scientific problems in cancer research. A third building unit, which
will be added to the group is the new Dr. James Ewing Cancer Hospital, to be
built by the City of New York on Memorial Hospital’s grounds and to be inte-
grated with the original Memorial Hospital for Cancer and the Sloan-Kettering
Institute for Cancer Research into the greater Memorial Cancer Center.

BIBLIOGRAPHY
Crowell, Bowman C.: Cancer clinics, American College of Surgeons 1944-1945 Year Book, Chicago, Lakeside
Press. pp. 36-38.
Kress, Louis C. and Levin, Morton L.: Experiences and results in tumor clinic organization, Radiology,
L'Esperance, Elise S.: Cancer prevention clinics, Medical Women's Journal, 51: 17-21, Jan. 1944; The pro-
gress in cancer prevention clinics, Medical Women's Journal, April 1945.
1944.
New York City Cancer Committee of the American Society for the Control of Cancer, Inc.: A Manual
for High School Teachers, New York, N. Y. 1944.
Results of fifteen years of the Cancer Control Program in Massachusetts, New England Jour. Med., 199:
61-84, Jan. 15, 1942.
Shimkin, Michael: Research activities of the National Cancer Institute, Jour. National Cancer Institute,
5: 77-88, Oct. 1944.

Espustos.—Del esputo de tres personas que padecían de tularemia sin síntomas
eclínicos franco de invasión pulmonar, C. L. Larson (Pub. Health Rep., 1049, sbr. 7, 1945) aisló la P. tularensis. Como procedimiento de laboratorio se recomienda
la inoculación de ratones con suspensiones de esputos de enfermos sospechosos,
y el examen microscópico de frotes de bazo de ratones infectados, teñidos con la
coloración de Wayson. Este procedimiento facilita el establecimiento de un diag-
nóstico tentativo precoz de la enfermedad.