Melanoma Studied

A study of 913 MDAH patients with malignant melanoma has been completed by Miss Eleanor J. Macdonald, epidemiologist. The data show that although mortality rates rose until 1957, since that time there has been a continuing decrease.

The 913 patients in this series represent 3% of the cancer cases from MDAH, although melanoma constitutes only about 1% of total cancer occurring in the population. The increased proportion of malignant melanoma cases at this hospital has resulted from the institution-wide interest in this particular type of neoplastic disease.

For the total series, the ten-year survival rate was 27.4%. In comparison, the group of patients who received treatment early in the course of the disease, before metastases occurred, had a ten-year survival rate of approximately 55%. The average time lapse between appearance of the first symptom and detection of the first metastases was almost 2 1/2 years. However, it may be expected that one in 20 patients will not develop the first sign of metastases until 7 1/2 years have elapsed after the onset of symptoms.

Metastases which were clinically difficult to recognize were observed in the pleura, adrenal glands, heart, kidneys, pancreas, spleen, and ovaries. In many cases, metastases to the heart, adrenal glands, and ovaries were discovered only at autopsy examination. In contrast, several patients with classic symptoms of brain lesions were found to be free of metastases to the brain at autopsy examination.

No differences in metastatic patterns by primary sites of disease were noted. Conventional therapy and chemotherapy showed no apparent differences of effect either on the course of metastases or on survival rates.

With the increased trends to early diagnosis and recognition of metastases, resolution of many of the medical problems encountered in the treatment of patients with malignant melanoma can be expected.

Radiologists Complete Training

Radiologists from 19 universities and hospitals, ten from Texas and nine from other states, have each completed a one-week study at MDAH of the mammographic technique developed by Robert L. Egan, MDAH associate radiologist.

In June Dr. Egan was awarded a $43,500 grant by the Cancer Control Program, Department of Health, Education and Welfare, and the Texas State Department of Health, for the one-year project of training twenty radiologists from institutions throughout the country in his technique of detecting breast cancer. Another radiologist will be selected at a later date for training under the grant.

Approximately three radiologists have visited the MDAH section of experimental radiology each week since award of the grant to review mammograms on file and learn the procedure involved in obtaining the mammograms.

After completing his training, each radiologist has returned to his institution to adapt his x-ray machine to the technique and to begin use of the technique at his institution.

Each participant will send mammograms taken at his institution to MDAH where they will be compiled and analyzed to determine the number of cancers which were diagnosed correctly through use of the mammographic technique as well as to determine the proportion of agreement between the pathologist’s diagnosis by tissue examination and the radiologist’s diagnosis by mammogram. Over 2,000 mammograms will be analyzed.

The ten radiologists from Texas who are participating in the project are: Tom S. Allen, University of Texas Medical Branch, Galveston; John E. Ballard, Shannon West Texas Memorial Hospital, San Angelo; Robert F. Elzey, Austin; Joseph E. Gardner, Corpus Christi; Billy D. King, Robert B. Green Hospital, San Antonio; Harvey M. Lowry, Beaumont; Janet Martin, Baylor University Medical Center, Dallas; Joe M. Moody, Memorial Baptist Hospital, Houston; Norman L. Presley, University of Texas Southwestern Medical School, Dallas; and Herman C. Sehested, Fort Worth.

Radiologists from other states who received training in the mammographic technique are: Stanley P. Bohrer, Massachusetts General Hospital, Boston; Earl Dagg, Salt Lake General Hospital, Salt Lake City; Roger Harvey, University of Illinois College of Medicine, Chicago; Stanley Lance, University of California Medical Center, Los Angeles; Andrew Lillie, University of Minnesota Medical Center, Minneapolis; Frank E. Maddison, University of California Medical Center, San Francisco; Charles Nice, Tulane University Hospital, New Orleans; James V. Rogers, Emory University Medical Center, Atlanta; and Ruth Snyder, Memorial Center for Cancer and Allied Diseases, New York.
1962 Symposium Announced

Conceptual Advances in Immunology and Oncology is the subject of the Sixteenth Annual Symposium on Fundamental Cancer Research which will be held Mar. 1, 2 and 3, 1962, at MDAH. According to Felix L. Haas, MDAH biologist and chairman of the symposium committee, the three-day program will be divided into morning sessions from 9:00 A.M. to 12:00 noon and afternoon sessions from 2:30 P.M. to 6:00 P.M. Tentative titles of the sessions are: Theories of Antibody Production, Control Mechanisms of Antibody Synthesis, The Nature of the Antigen-Antibody Reaction, Transplantation and Immunological Tolerance, and Cancer Specific Antigens. Molecular Basis of Neoplasia, the fourth volume in the series of MDAH symposium monographs, is in press. The book is a collection of the papers presented at the Fifteenth Annual Symposium, and will be available in February, 1962.

Previous volumes in the series of symposium monographs are Cell Physiology of Neoplasia, Genetics and Cancer and Radiation Biology and Cancer. These books are currently available from the University of Texas Press.

At the annual meeting of the American Society of Clinical Pathologists in Seattle October 3 to 6, a workshop on the cold chamber cryostat frozen section technique given by William O. Russell, pathologist, Michael Ibanez, assistant pathologist, and Jeffrey P. Chang, associate biologist, was held for three sessions to accommodate as many of the 150 applicants as possible.

The open-top cryostat was developed by Drs. Chang and Russell, E. B. Moore, engineer designer, and Dr. W. K. Sinclair, now at Argonne National Laboratory, Illinois.

Grants Aid Research And Education

Research projects and scientific education at MDAH have received new support in the form of twenty-three new grants totaling $470,514.

The American Cancer Society granted:
1. Robert B. Hurlbert, associate biochemist, $47,496 for studies on the biosynthesis of nucleotide and polynucleotide pyrimidines in rat tumor tissue, and $13,561 for further study on the same subject.
2. T. C. Hsu, associate biologist, $13,202 for research on the cytology of cell strains.

The National Cancer Institute awarded:
1. $44,786 to William O. Russell, pathologist, for the study of trace metal patterns in normal and malignant tissue.
2. $42,702 to R. Lee Clark, Director and Surgeon-in-Chief, for research on chemotherapy for malignant melanoma and other cancers.
3. $29,614 to William O. Russell, pathologist, for histochemical research for community cancer diagnosis.
4. $28,350 to William O. Russell, pathologist, for studies of the etiology of bovine ocular squamous cell carcinoma.
5. $27,416 to Leon Dmochowski, virologist, for studies of viruses in leukemia and allied diseases.
6. $23,871 to Daniel Billen, associate biochemist, for research on tissue cultured cells of hemic origin in x-rayed mice.
7. $21,658 to Nylene E. Eckles, associate internist, to study pituitary stalk section and breast cancer.
8. $20,603 to Saul Kit, associate biochemist, for studies of the biochemistry of mammalian and viral nucleic acids.
9. $18,536 to J. P. Chang, associate biochemist, for chemical and histochemical studies of carcinogenesis.
10. $18,336 to David E. Anderson, associate biochemist, for further research on the genetic aspects of bovine ocular carcinoma.
11. $9,720 to E. C. White, surgeon, for clinical training of fellows and residents in the department of surgery.
12. $9,264 to Darrell N. Ward, associate biochemist, for biochemical studies on hamster renal tumor induction.
13. $7,970 to Bruno Jirgensons, biochemist, to study characterization of plasma and urinary proteins.
14. $4,536 to Gilbert H. Fletcher, radiotherapist, for the clinical training of radiology fellows and residents.
15. $4,536 to Felix Rutledge, gynecologist, for the clinical training of fellows and residents in the section of gynecology, department of surgery.
16. $2,517 to Robert S. Nelson, associate internist, to study P32 in the detection of early gastrointestinal malignancy.
17. $1,030 to Howard T. Barkley, clinical associate surgeon, for clinical trials on chemotherapy as an adjuvant to surgery.

The Cancer Control Program, U. S. Department of Health, Education, and Welfare, granted $40,246 to R. Lee Clark, Director and Surgeon-in-Chief, to collect data on quantitative and qualitative differences in the sputum of smokers and nonsmokers by exfoliative cytology of pulmonary secretions.

The National Institute of Arthritis and Metabolic Diseases awarded $17,539 to Darrell N. Ward, associate biochemist, for research on the chemistry of luteinizing hormone.


The National Science Foundation awarded Felix L. Haas, biologist, $6,100 for research on the induction of genetic change.

Cancer Council Appointment

First From Southwest

R. Lee Clark, Director and Surgeon-in-Chief of MDAH, has been appointed a member of the National Advisory Cancer Council, U. S. Public Health Service.

During his term of service, from October, 1961, through September, 1965, Dr. Clark will aid the council in the review and recommendation of support of nongovernmental research.

Dr. Clark’s appointment to the council was the first to be made to a physician in the Southwest.

“I feel that this honor comes in recognition of the excellent work on the part of the institution’s clinical and research staffs, and is evidence that the hospital has attained national and international respect,” Dr. Clark said.

Dr. Clark’s other appointments include that of chairman of the committee on cancer of the American College of Surgeons.
Sixth Annual Clinical Conference

The Sixth Annual Clinical Conference on Cancer of the Genitourinary Tract was held at MDAH on October 20 and 21.

The guest participants were: Webb DeTar, Victoria, Texas; Gerald D. Dodd, Jr., Jefferson Medical College, Philadelphia; Milton Friedman, Hospital for Joint Diseases, New York; J. Sid Jones, Waco, Texas; Elizabeth A. McGrew, University of Illinois College of Medicine, Chicago; F. K. Mostofi, Armed Forces Institute of Pathology, Washington, D. C.; D. M. Wallace, Royal Marsden Hospital, London; and Willet F. Whitmore, Jr., Memorial Center for Cancer.

Bladder cancer, the most common form of genitourinary cancer, occurs most frequently in men, particularly in the older age groups. Mr. D. M. Wallace reported that epidemiologic studies of industrial workers in England indicated a link between some bladder cancers and the carcinogenic effect of certain industrial chemicals. At the same time, the theory of viral etiology has been supported by experimental work with animals and by patterns of tumor infiltration in human beings. He suggested that both factors probably play roles in carcinogenesis.

Urethral cancer is a rare form of genitourinary tract disease. Of 31 patients with urethral cancer seen at MDAH between 1950 and 1960, 25 were women; 80% of the lesions were classified as squamous cell carcinoma. The five-year survival rate for patients with this form of malignant disease was about 50%.

The incidence rate of penile cancer is low in countries where circumcision is common. In the United States, penile cancer constitutes only 2% of all genitourinary tract carcinoma. Between 1945 and 1960, 87 patients with this disease were seen at MDAH; none of these had been circumcised. All but one of the lesions were classified as squamous cell types.

Participants in the clinical conference emphasized that therapy for patients with cancer of the genitourinary tract varies widely with the specific type and with extent of the disease. Dr. Willet Whitmore reported the success of various surgical procedures, from simple endoscopic excision to pelvic exenteration, in treating these patients.

Experience with testicular cancer at MDAH indicates that careful surgical lymphadenectomy is essential in most cases. Surgeons at this institution prefer a transperitoneal approach over the older retroperitoneal approach for lymphadenectomy; exposure is simpler and more direct, more complete dissection of the lymph nodes is possible, and injury to blood vessels is less likely.

Radiotherapy has been used both as an adjunct to surgical treatment and as a sole form of therapy. Although radiotherapy has consisted largely of external supervoltage irradiation, intracavitary or interstitial irradiation has shown encouraging results in selected cases. Dr. Milton Friedman described the Walter Reed technique of intracavitary irradiation in the management of certain types of bladder cancers. This method utilized a radium or cobalt radiation source suspended in a balloon applicator.

Dr. J. Sid Jones discussed complications resulting from irradiation of the urinary tract. In a series of 260 patients treated at MDAH from 1954 to 1959, there were 12 major nonfatal complications with eventual recovery, 11 nonfatal complications without recovery, and 12 fatal complications. Of these, bladder complications were most numerous and significant. Complications decreased toward the study's end.

Chemotherapy has become increasingly successful in the treatment of patients with genitourinary tract neoplasms. Dr. Willet Whitmore reported promising results in the control of testicular cancer by the triple drug treatment consisting of an antimetabolite, an alkylating agent, and an antitumor antibiotic, in combination. In many patients, administration of this drug combination has resulted in reduction of size of masses, or in the case of some pulmonary metastases, complete regression. Endocrine therapy has proven a simple and effective method of inducing remissions in about 80% of patients with early or only moderately advanced disease.

(Conference, continued on page 4)
advanced prostatic cancer.

Problems in diagnosis were discussed by various speakers. Dr. F. K. Mostofi reviewed the cytologic types of carcinoma and patterns of infiltrations in the genitourinary tract. He outlined the pathologist's criteria for diagnosis of malignant disease, and emphasized the necessity for examining biopsy specimens which are adequately representative of the tumor in order to reach accurate pathological diagnosis.

Cancer Society Meeting

The Travel Club of the New England Cancer Society met at MDAH December 1 and 2 to hear staff members from various departments at MDAH present papers on methods of cancer research and treatment of the cancer patient.

C. D. Howe, chief of clinics, presided over the first session, which included papers on current concepts in the biology of cancer, tumor inducing viruses, and current concepts of the biochemistry of cancer, presented by Felix L. Haas, biologist, Leon L. Dmochowski, virologist and electron microscopist, and A. Clark Griffin, biochemist. A question and answer period concluded the session.

Murray M. Copeland, assistant director for education, presided over the afternoon session, which began with a discussion of cancer chemotherapy by C. C. Shullenberger, associate internist, Daniel E. Bergsagel, associate internist, and C. D. Howe, chief of clinics. William S. MacComb, chief, head and neck service, Beaury C. Burns, Jr., assistant gynecologist, Gilbert H. Fletcher, radiotherapist, and Richard H. Jesse, Jr., assistant surgeon, addressed the society on carcinoma of the head and neck, carcinoma of the uterine cervix, and chemotherapy by arterial perfusion and infusion.

William S. MacComb, chief, head and neck service, presided over the Saturday morning session. Robert L. Egan, associate radiologist, and Patrick A. Dolan, assistant radiologist, presented papers on radiologic techniques of mammography and of lymphangiography, respectively. E. C. White, surgeon, and Gilbert H. Fletcher, radiotherapist, discussed carcinoma of the breast. Frozen section diagnosis, utilizing the cryostat, was the subject of a paper by William O. Russell, pathologist. E. C. White and Raymond G. Rose, associate internists, concluded the meeting with a discussion of cancer of the thyroid.

Fifth Year Book of Cancer


Editors of the Year Book, R. Lee Clark and Russell W. Cumley, were assisted by an editorial board of 129 international authorities in surveying the world journal literature throughout the year in order to present, in the one volume, the current status of cancer research and care of the patient with cancer.

Abstracts of 334 articles are included in the Year Book, which contains 544 pages and 189 illustrations.

The concluding chapter of the latest volume is an article written for the Year Book by William O. Russell, MDAH pathologist, on the "Incidence and Classification of Bronchogenic Carcinoma, with Reference to Earlier Diagnosis by Exfoliative Cytology."

Copies of the Year Book of Cancer may be obtained from the Year Book Medical Publishers, Inc., 200 East Illinois Street, Chicago 11, Illinois. The price is $8.50.
Scientific Presentations

Mary L. Alexander, assistant radiation biologist, addressed the Thirtieth Annual Meeting of the Genetics Society of America in Lafayette, Indiana, August 28 to 30, on “Genetic Recovery Mechanisms and Fast Neutron Treatment of Mature Sperm Treated in Males and Fertilized Females of D. melanogaster.”

David E. Anderson, associate biologist, Jeffrey P. Chang, associate biologist, Eleanor J. Macdonald, epidemiologist, and John S. Stehlin, Jr., associate surgeon, presented papers at the Fifth International Pigment Cell Conference in New York, October 11 to 14. Dr. Anderson spoke on “Effects of Pigment on Bovine Ocular Squamous Carcinoma”; Dr. Chang addressed the conference on “Chemical and Autoradiographic Analyses of Tyrosinase Activity in Melanoma and Related Lesions,” co-authored by W. O. Russell, J. S. Stehlin, Jr., and J. L. Smith, Jr.; Miss Macdonald presented “The Epidemiology of Melanoma”; and Dr. Stehlin spoke on “Perfusion Techniques in Treatment of Malignant Melanoma,” co-authored by R. Lee Clark, Director and Surgeon-in-Chief. At the same meeting, a film, “Observations on Human Melanoma Cells in Tissue Culture,” was shown which was narrated by George G. Rose, assistant biologist.

Jeffrey P. Chang, associate biologist, delivered a lecture at the University of Kansas Seminar, August 29, on “Recent Advances in Freeze-Substitution and Frozen-Sectioning.”

R. Lee Clark, Director and Surgeon-in-Chief, was guest speaker at meetings in Mexico City and Guadalajara, Mexico, August 21 to 26. He presented a paper on “Total Thyroidectomy for Cancer of the Thyroid: Significance of Intraglandular Dissemination” and reviewed a film on “Carcinoma of the Thyroid” at the meeting of the Mexican Chapter, American College of Surgeons, in Mexico City, August 21, and at the staff meeting of the Santa Mar­gurita Hospital in Guadalajara, August 26. Dr. Clark spoke on “A Critical Review of the Management of Soft-Tissue Sarcomas” to the National Academy of Surgery of Mexico in Mexico City, August 22, and to the Surgical So­ciety, University of Guadalajara, Au­ gust 25 in Guadalajara. He addressed the staff of the National Cancer Hos­pital in Mexico City, August 22, on “Experience with Mammography in a Tumor Institution.”

William S. Derrick, anesthesiologist, spoke to the annual meeting of the Michigan State Medical Society September 28 in Grand Rapids, Michigan, on “The Role of the Anesthesiologist in the Hospital and in the Community Today.” He addressed the society’s Section on Anesthesiology on “Anesthesiology and the Texas Medical Center in Houston” on the same date. At Ann Arbor, Michigan, September 29, Dr. Derrick spoke to the staff and residents of the department of anesthesiology, the University of Michigan Medical School, on “Recent Studies in Electron­crosis.”

Leon Dmochowski, virologist and electron microscopist, presented two papers, “Sites and Modes of Polymavirus Replication” and “Sites and Modes of Chicken Leukosis Virus Reproduction,” at the Symposium on Nuclear-Cytoplasmic Interrelations, organized by the State University of Florida at Fort Collins, August 18 to 19. At the Nineteenth Annual Meeting of the Electron Microscope Society of America in Pittsburgh, August 23 to 26, Dr. Dmochowski was chairman of the session on “Neoplasms and Related Topics.” He delivered a paper on “Studies on Mammary Glands and Mammary Tu­mors of Mice Bearing Grafts of Pituitary Tumors and Injected with the Bittner Virus,” co-authored by C. E. Grey, Jacob Furth and K. Yokoro. At the same meeting, Elizabeth Bereczky, section of virology, presented a paper on “Correlative Light, Phase, Fluorescence and Electron Microscopy of Mouse Embryo Cells Infected with Polyoma,” co-authored by L. Dmochowski and C. E. Grey.

Patrick A. Dolan, assistant radiologist, Robert L. Egan, associate radiologist, and Lillian M. Fuller, associate radiotherapist, presented papers at the Sixty-second Annual Meeting of the American Roentgen Ray Society in Miami Beach, Florida, September 26 to 29. Dr. Dolan spoke on “Crani­al Nerve Extension of Tumors of the Head and Neck,” co-authored by Alando J. Ballantyne, associate head and neck surgeon, and Gerald D. Dodd, Jr., Jefferson Medical College, Philadelphia. Dr. Egan delivered an instruction course on “Soft Tissue Roentgenography of the Breast” and spoke on “Experience with Mammography in a Tumor Institution.” Dr. Fuller presented “Analysis of the Results of Treatment in Lymphomatous Diseases Treated by Radiation Therapy.”

John F. Dominick, executive for research, office of research, spoke at the Medical Seminar for FAA Aviation Medical Examiners on “Fitness and Air Crew Maintenance” at The University of Texas Postgraduate School of Medicine, August 16.

Robert L. Egan, associate radiologist, addressed the staff of the Tucson Medical Center in Tucson, Arizona, September 18, on “Experience with Mammography in a Tumor Institution” and “Soft Tissue Roentgenography of the Breast.” At the annual clinical session of the Southeastern Texas Chapter, American College of Surgeons, in Houston, September 23, Dr. Egan spoke on “Experience with Mammography in a Tumor Institution.” “Soft Tissue Roentgenography of the Breast” was the subject of the paper he presented at the meeting of the Osler Society in Houston, October 17 to 18.

John E. Healey, Jr., associate experimental surgeon, addressed the Third Annual Educational Symposium of the Harris County Medical Assistants Society on “Anatomy” September 16 to 17 in Houston. At the Clinical Congress of the American College of Surgeons in Chicago, October 2 to 6, Dr. Healey presented an exhibit of a simplified perfusion pump.

C. D. Howe, internist, spoke on “The Chemotherapy of Neoplasms” to the Vermont State Medical Society in Pile, New Hampshire, September 9. At the Seventh Annual Southeast Missouri Cancer Conference in Cape Gir­ardeau, Missouri, October 8, Dr. Howe presented a paper on “New Advances in Chemotherapy.” He addressed the Osler Society in Houston, October 17 to 18, on “New Agents in Solid Tumor Chemotherapy.”

Bruno Jirgensons, biochemist, de­livered a paper at the American Chemical Society National Meeting in Chicago, September 4, on “Optical Rotatory Dispersion of Proteins in the Far Ultraviolet.”

Tsuneo Kada, section of genetics, presented a paper on “Alternate Mechanisms of Deoxyribonucleic Acid Synthesis in Bacteria” at the annual meeting of the Genetics Society of America in Lafayette, Indiana, August 27 to 30.

Saul Kit, associate biochemist, de­livered a paper on “Studies on the Heterogeneity of Mouse DNA Prepara­tions” at the Fifth International Con­gress of Biochemistry in Moscow, August 12. At the Gustave Roussy Institute in Villejuif, France, July 24, Dr. Kit spoke on “The Nucleic Acids of Normal Tissues and Tumors.” “The Biochemistry of Vaccinia Infected Tis­(Presentations, continued on page 6)
issue Culture Cells" was the subject of the paper he presented at the Weizmann Institute in Rehovoth, Israel, July 29.

William S. MacComb, head and neck surgeon, presented a paper on "Cancer of the Paranasal Sinuses" at the Second National Cancer Meeting of the Sociedad Mexicana de Estudios Oncologicos in Mexico City, October 26 to 29. At the same meeting, Alando J. Ballantyne, associate head and neck surgeon, spoke on "Surgical Treatment of Extensive Basal Cell Carcinoma and Squamous Cell Carcinoma of the Skin and Head and Neck." Marga Sinclair, chief, plastic surgery service, addressed the meeting on "Cancer of the Skin." Clifton F. Mountain, assistant surgeon, spoke on "Exfoliative Cytology in the Diagnosis of Pulmonary Malignancy."


William O. Russell, pathologist, presented a paper on "Cold Chamber Permanent Frozen Sections for Routine Surgical Pathology" at the Swiftsure Medical Society meeting in Seattle, Washington, September 25 to 28.

Felix Rutledge, gynecologist, spoke to the Society of Pelvic Surgeons in Baltimore, October 27 to 29, on "Lymphocyst and Lymphedema."

Robert J. Shalek, associate physicist, presented a paper on "The Influence of Oxygen and Temperature on the Radiation Inactivation of Dry Lysozyme" at the Fifth International Biophysics Congress, July 31 to August 4, in Stockholm, Sweden. At the same meeting, Arthur Cole, assistant physician, spoke on "Study of Radiation Susceptible Structures in Microorganisms with Monoenergetic Electron Beams of 0.5 to 150 Kev Energies.

J. Leslie Smith, Jr., assistant pathologist, lectured at the Holland T. Jackson Seminar on Allergy and Dermatology on "Neoplasms and Pseudoneoplasms of Skin: Clinical and Histologic Differentiation" October 14 in Houston.

John S. Stehlin, Jr., associate surgeon, presented a paper on "Systemic Chemotherapy for Melanoma" and participated in a panel discussion on "Leakage Factor in Regional Perfusion" at the American College of Surgeons meeting in Chicago, October 3 to 7. At the Twenty-fifth Annual Meeting of the Western Orthopedic Association.

Staff Publications


R. Lee Clark, Director and Surgeon-Chief of MDAH, has been appointed to the Advisory Committee on Institutional Research Grants of the American Cancer Society.

Retiring Employees Honored

The second annual program honoring employees retiring from careers at MDAH was held August 30 in the MDAH auditorium.

Plaques denoting membership in the Anderson Hospital Alumni Association were presented to the three retiring employees.

Mrs. Eva S. Child retired after five years as director of volunteer services.

Miss Glyde Moore left after seven years of service in the business office.

Mr. Edward Roensch retired from the Physical Plant after seven years' employment.

The first employees to retire from full-time employment at MDAH were honored with a program in 1960.