Dr. Robert A. Nordyke is a internationally recognized specialist in nuclear medicine and a pioneer in the field of medical informatics, recognized for his development of computer-based medical records, databases, and clinical studies of thyroid disease. Since establishing the Department of Nuclear Medicine at Straub Clinic and Hospital in 1960, Dr. Nordyke has built a uniquely large and complete thyroid disease database, which has helped uncover many new facts about these frequently underdiagnosed diseases and about their treatments. He has demonstrated the correlation between size of a goiter (thyroid gland enlargement) and increased thyroid function (hyperthyroidism), has shown how the cure rate for hypothyroidism is affected by various drug combinations and dosages, and, most recently, determined what is the most cost effective sequence of thyroid function testing for general hospital laboratory use. Dr. Nordyke developed, in collaboration with Casimir A. Kulikowski, Ph.D., one of the earliest pattern recognition methods for computer decision support employing a combination of advanced statistical and logical reasoning techniques. Dr. Nordyke’s research, in collaboration with Dr. Fred Gilbert, led the research efforts on information systems for multi-specialty clinics, chronic disease clinics, and screening for breast cancer at the Pacific Health Research Institute (PHRI).

(At a time when doctors kept patient records on 3x5 index cards and were viewing the computerization of medical records with suspicion, Dr. Nordyke recognized the power of computers as tools not just for keeping tidy notes, but for gathering and analyzing medical data in a way that would help direct doctors’ diognoses and treatments for patients. A visionary always bent on improving treatment for his patients, he was 30 years ahead of his time in realizing that the kinds of patients a doctor sees vary from practice to practice and that databases collected specifically for each practice improve the quality of patient care dramatically.)

Editor’s Note:

Bob Nordyke MD is a very special man, as indicated by George Chaplin, himself a very special man.

Dr. Nordyke served as guest editor for the June 1995 Festschrift honoring Fred Gilbert MD - a testimonial to Fred and to his longtime associate and friend as well as to Bob. It was our largest and best Festschrift.

Bob has received many accolades, accomplishments and awards - as indicated in his biography. Most recently he received a special recognition award from the Society of Nuclear Medicine, Hawaii Chapter.

Mahalo Nui Loa, Bob for the Fred Gilbert Festschrift, for your efforts to construct cabins at the YMCA Camp Erdman on Oahu’s North Shore, for your years of research and administrative guidance at the Pacific Health Research Institute, for the many many patients you have helped over the years, and for your friendship.

Public Health in Medical Education

by Kenton J. Kramer, Ph.D., Assistant Professor, Department of Tropical Medicine and Medical Microbiology

Kay A. Bauman, M.D., Associate Professor, Department of Family Practice and Community Health

A 1993 survey commissioned by the Assistant Secretary of Health Philip R. Lee stated that the United States had significant shortages of public health professionals including physicians (Am. J. Prev. Med., 1996). The goal of the U.S. Public Health Service, therefore, was to increase the number of physicians interested in the public health aspects of medicine. However, almost universally, medical education focuses on individual patients. It may be many years before the student realizes that his/her patient’s health is directly related to the patient’s family and the community in which the patient lives. The community medicine component of the M.D. Program at the John A. Burns School of Medicine (JABSOM) aspires to instill in our first year medical students an understanding of the principles of public health and the utilization of those principles to promote and preserve health.

Public health education emphasizes ways to promote and preserve health as well as to anticipate and/or correct factors adversely affecting the well-being and functioning of the community. This expansive view of health requires many types of health care professionals acting together as the physician for the community. In Hawaii, there is the added aspect of ethnic diversity and cultural beliefs which may at times come into conflict with western medical practices. The Problem-Based Learning (PBL) curriculum adopted by JABSOM in 1989 emphasizes the role of the family and the community in health issues by promoting community medicine as an important concept in medical care. One of our goals is to produce students with community awareness and cultural sensitivity and whose philosophy includes the maintenance and improvement of health not only for their patients but for all members of the community in which they serve.

JABSOM’s curriculum gives our students a wide range of community experiences in order to promote cultural awareness and to examine ways of putting public health concepts into practice. To accomplish this goal, JABSOM has a dual tract community medicine curriculum. Entering first year students are required to select either the Primary Care and Community Medicine Program (PCCM) or the Ke Ola O Hawaii (Health of Hawaii) Program to fulfill their community medicine requirement. The student’s total commitment in either program is 15 months.

In PCCM, the students participate in two of the following organizations: Queen Emma Clinics, Hina Mauka Drug and Alcohol Treatment Center, HUGS (Help Understanding & Group Support) for seriously ill children, Diamond Head Mental Health Clinic, Halawa Correctional Facilities, Leahi Hospital’s Adult Day Care
Facility, Health Care for the Homeless, and the Tuberculosis Branch of the Department of Health. The time commitment at each site is 4 hours per week for 3 months. Students develop an appreciation for the medical needs of the individuals seeking care at each of these facilities and to interact with patients from various cultural backgrounds. They also learn the physician’s role in meeting those needs and begin to gain an appreciation for the role other health care professionals play in caring for the patient. Finally, each student undergoes hospice training at either Hospice Hawaii or St. Francis Hospice where the focus is on comfort and community care for the dying and support for their family.

Working with community organizations is just one aspect of the PCCM curriculum. In their weekly health care problems, students are asked to integrate their PCCM learning with simulated patients and to explore other community agencies which may help in treating their “patient’s” health problem. PCCM continues during the summer between the student’s first and second year. The students must shadow a primary care physician and complete a community medicine research project. Shadowing a physician for 9 weeks is an integral part of the education of physicians. Students apply what they have learned during the year on “real” patients and examine how their preceptors interact with the community and contribute to solving public health issues through community and political involvement. At the same time, students are asked to identify and research a community health problem. This research project is a chance for the student to apply public health concepts and to explore ways epidemiology and biostatistics are used to investigate a health problem and as tools for developing possible solutions. Through these projects, students gain important research skills by investigating a community health care problem and at the same time gain practical experience in designing and executing a project with public health implications. Students have examined such diverse areas as cigarette poisoning on Oahu, bicycle safety practices, impediments to childhood immunization programs, development of anti-smoking campaigns which target specific groups, health care issues at Halawa Prison and the effects of delivery room temperature on newborn distress.

The second tract of the Community Medicine curriculum involves a multi-disciplinary approach to community medicine. Under the auspices of Ke Ola O Hawaii, students from the Schools of Medicine, Social Work, Nursing and Public Health come together to address health care issues of their community. There are four Ke Ola sites located at Queen Emma Clinics, Kalihi Palama Health Center, Kokua Kalihi Valley Comprehensive Family Services, and Waianae Coast Comprehensive Health Center. These sites bring students from the four disciplines together with grass-roots community organizations to identify and develop health projects, such as increasing participation in childhood immunization programs, improving access to medical care by native Hawaiians, and school- based educational programs on health. The students meet once a week for 4 hours to learn the skills needed to work in a multicultural/multilingual community. Other practical areas addressed are factors which influence group dynamics, ways to facilitate the functioning of small groups of individuals from different backgrounds, community needs assessment, and program planning and implementation. Active community involvement is a hallmark of the Ke Ola Program. Students leave the program with the background and skills needed to tackle the health care needs in the under served areas of our State.

The partnership between JABSOM and the community organizations involved in PCCM and Ke Ola is providing valuable learning opportunities for our students to study and practice the principles of public health. This unique arrangement expands the learning environment away from the physical structures of the Manoa Campus and allows our students to quickly integrate into the community. The JABSOM administration is grateful to the participating organizations for volunteering their staff and facilities to help train the future physicians of Hawaii. With their help, JABSOM will continue to promote primary care specialties as career choices for our students. Studies are in progress to evaluate the effect these efforts are having on the career choices of our medical graduates.