the body politic

MAY, 1977



The Body Politic

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Edited by Harriet Barr

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HEALTH CARE FOR BELLE GLADE

Belle Glade Health Center, Belle Glade, Florida

Martha Valiant

As you drive into the "Glades" area of western Palm Beach County, Florida, from any direction, you are immediately struck by the vast expanses of flat, rather monotonous agricultural lands which stretch from horizon to horizon. Miles of fields and grazing lands are interrupted only by occasional views of small hammocks of trees, numerous interlocking canals in the system for flood control, or an occasional glimpse of the Herbert Hoover Dike which surrounds Lake Okeeshobee. The soil is a vivid black muck, very high in organic content. Its richness is proven by hundreds of thousands of acres of green sod, winter vegetables and sugar cane which form the basis of the economy of the Glades. Agriculture in the Glades, however, is "agri-business," and not farming by small independent farmers which characterizes so much farming in the South. Large sugar cane and vegetable cooperatives provide local employment for residents, thousands of whom are seasonal agricultural workers. The "season" in the Glades is from November to March, and during those months the local employment level is at its peak. Many local residents are unemployed or only occasionally employed for the remainder of the year. The unprecedented cold weather and snow during this famed "Winter of '77" has created even greater economic stresses on the low and marginal income residents of the Glades. This is the setting in which the Belle Glade Health Center operates.

Belle Glade Health Center is actually the west county district office of the Palm Beach County Health Department. The Center offers the more traditional services of health departments, but most of the real "action" on a day-to-day basis is the direct result of the Center's large and active Migrant Health Program, through which primary care is provided to low-income Glades residents as well as to agricultural workers who truly "migrate."

The program at Belle Glade was the first migrant health program in America to be funded and came about largely

through the vision and efforts of Dr. Carl L. Brumback, director, Palm Beach County Health Department. Dr. Brumback recognized long ago that there was a great need to develop public health services especially designed to meet some of the rather unique social and cultural patterns characteristic of migrant farm workers. He realized that many of the problems of the farm worker who actually migrates were shared by their counterparts who stayed in the same place but were only employed during the agricultural season. Back in 1956, rising morbidity and mortality rates among mothers and infants and high prematurity and illegitimacy rates, indicated a pressing need for intervention and gave impetus to the initial funding. These rates (some improved, some deteriorating) continue to be high today. Prematurity, illegitimacy and infant mortality rates for the Glades tend to be higher than those for either Florida or the nation.

The actual population of Palm Beach County is expected to reach 579,800 in 1977. Additionally, an anticipated 200,000 annual visitors will work and reside in the county for part of the year. At least 40% of these visitors will be low-income seasonal workers. A study by the area planning board in 1974 showed that about 34,000 of these individuals are true agricultural migrants. In addition, there were at that time in the county some 19,665 resident seasonal agricultural workers, or a total of almost 54,000 seasonal agricultural workers and their families. Distribution of these workers places 31,400 in the Glades.

But don't think that Migrant Health is the only service which is emphasized at the Center. In addition, the clinic is a site for two National Health Service Corps physicians and one dentist. Other programs include maternity and infant care, dental health, EPSDT, cancer screening, hypertension screening, cardiovascular risk reversal, pharmacy and supportive laboratory and social services. An outreach program is being developed which will use a well-equipped Winnebago van to go out into the surrounding communities



Lake Okeeshobee



Miles of fields and grazing lands are interrupted with occasional views of trees.



Large sugar cane cooperatives are employment for seasonal workers.

and labor camps. An environmental sanitation unit for the Glades is an integral part of the system and is based at Pahokee.

Two small local hospitals exist: Glades General in Belle Glade and Everglades Memorial in Pahokee. Both are adequately equipped for a rural area but lack specialty capability for pediatrics, internal medicine, coronary care, neonatal intensive care, and other medical and surgical subspecialty back-up. Both hospitals have emergency rooms. Patients who require services or care which cannot be provided locally are generally transferred to physicians or facilities on the coast. The only road to West Palm Beach is treacherous, narrow and poorly maintained. It winds through the Everglades around Twenty-Mile Bend. Thus, the trip to the coast requires at least an hour (sometimes more), depending upon the weather conditions and upon the amount of highway congestion due to vegetable and sugar cane trucks.

Physicians in the Glades are limited in number, and there is a real shortage of physicians for primary care. Thus, the Glades is truly "medically underserved" and the "underserving" crosses racial and economic interfaces. Money cannot buy the services of an internist locally if there is no internist.

The population served by the Center is mainly black, although white patients are served also. There are a number of patients from Mexico, Cuba, Jamaica, Haiti, the Bahamas and other Caribbean islands. Most of the patients are seasonal agricultural workers, and a significant number of them are true "migrants." Housing in the Glades, even substandard, is very expensive and very scarce and most of the available housing for low-income families is sub-standard. The prevalence of poor living conditions and the local pattern of seasonal employment make problems related to health much more dramatic and more frequent in occurrence than might ordinarily be the case.

The main building of the Center is undergoing renovations to increase the amount of functional examining room space. During this period the main hub of clinical activity is centered in a double-wide trailer. After the main building is re-opened, the trailer will be developed into the family medicine unit, which will be headed by one of the Corps physicians, who is a board-certified family practitioner. A second double-wide trailer serves as office space for administration and the community nurses. The dental unit is housed in still another trailer. Last, but not least, is a fourth tiny trailer known as "The Silver Streak," in which pediatrics and the W.I.C. Program are housed. The pharmacy, the director's office, V.D. control and



Entrance to Health Center.

two more large examining rooms are located in some apartment units which are a part of the building complex. Staffing needs are drastically increased by the necessity for having staff spread all over the complex in an attempt to serve an ever-increasing population of patients with an ever-increasing spectrum of services. In this regard, the Center is like Topsy in that it "just grew," so that last year there were well over 30,000 encounters.

This is only part of the reality of the Belle Glade Health Center. The main part of the reality, and the most important part, is the energetic, well-trained and committed staff at the Center, with their plans and dreams, and an involved Migrant Health Policy Board which, along with the staff, sees a bright future for the clinic at Belle Glade. The future includes the implementation of high standards for ambulatory medical and dental care, with manpower to make those standards a reality. Since physician manpower is difficult to recruit in geographically remote areas, capable nurse practitioners will form the "backbone" of the program with physician consultation and back-up in the ambulatory care programs. As now, emphasis will be on local recruitment of staff and local management of patients whenever possible. When more complex or sophisticated care is indicated, referral to the coast and a more functional transportation system will be developed, with emphasis on mechanisms for communication between providers and followup. Even as the current renovations on the existing outdated facility are under way, plans are being implemented to secure funding for a new facility which will more adequately serve this very high risk population.



Patients attend clinics in well equipped mobile van which provides services to surrounding communities.

CANCER AND WORK

The causative relationships between cancer and materials in the work environment has been known for almost 200 years. The relationship was first documented in 1795 when it was found that a number of chimney sweeps in London suffered a particular kind of cancer from contact with soot from coal smoke. About 100 years ago in Germany exposures in the dyestuffs and chemical industries caused some of the workers to develop bladder cancers. Since that time many studies of the incidence of cancer among workers in many industries have been done. Research in the rubber industry in this country and in Great Britain, has reported an association between work in the rubber industry and some kinds of cancer.

Health research in the rubber industry under the Joint Occupational Health Program has focused attention on cancer. Over the past two years detailed reports of findings on individual groups of workers have been sent as soon as they are completed by the Occupational Health Studies Group to the URW-Company Joint Occupational Health Committees. Findings to date on cancers for groups of workers from all four of the companies participating in the studies (Firestone, General, Goodyear, and Uniroyal) have been summarized. Highlights of that summary follow.

All male workers, either active or retired, between the ages of 40 and 84 on January 1, 1964 were identified for one large plant for each of the four companies and death certificates for all those who died in the ensuing ten years, 1964 through 1973, were obtained. Almost 19,000 rubber workers were included in this study, more than 5000 of them died in the ten year period. Deaths from all causes, from all cancers, and from specific types of cancers as determined from the death certificates were compared with the numbers of deaths which would have occurred among men of the same ages in the general population. Commonly used in studies of this nature, this comparison is called the Standard Mortality Ratio (SMR).

There were 5106 deaths among the 19,000 workers during the ten year period under study, and of these deaths, 1014 were due to cancers. The SMR for cancer, in all four companies combined, was approximately 100 showing that the number of deaths which occurred was the number which would be expected. This is an important, and perhaps reassuring result, but is incomplete. First, working people are generally healthier and have lower death rates than the general population. Second, important differences about specific types of cancers may be obscured or lost when all available data is lumped together. Indeed, this occurred in the present study, because when deaths from cancers at specific sites were analyzed, some major differences were uncovered.

The Standard Mortality Ratio for cancers of four different digestive organs were elevated either for the entire study group or for some particular age group in the study. 48 percent more stomach cancer was found than expected with the 83% figure for the 40 to 64 age group being the most

striking. In addition, cancer of the colon showed a moderate overall excess (16%) as did cancer of the rectum among the 40 to 64 age group. Cancer of the pancreas showed a slight excess overall (3%) and in the 65 to 84 age group (8%).

Cancers related to the lymph system and blood, such as leukemia and Hodgkins disease, were found in greater than expected numbers among rubber workers (31% higher than expected). Prostate cancer was 19% higher. On the brighter side, no overall excess deaths were found for central nervous system (brain and spinal cord), respiratory system (mainly lungs), and bladder cancers. The latter two findings are of special interest to rubber workers because numerous earlier studies have reported significant excesses of both respiratory and bladder cancers. The latest findings, however, are offered with the caution that smaller groups of rubber workers, among the large groups analyzed, may have increased risks of either bladder or respiratory system cancer which is undetected in analysis of the large groups.

After more than expected numbers of cancers have been identified among a group of workers, the next step is to determine the reasons for the excess. Ordinarily a difficult task, it is especially difficult in the rubber industry because of the thousands of chemicals encountered either as ingredients or reaction products. A first step in the process, is to identify the specific jobs held by workers who have died from certain cancers, to determine if workers who have held some particular jobs are at higher risk than other workers. Analysis of mortality experience by job groups within the industry is continuing and the results should answer questions in this regard.

Analysis by job type has already been used to study the leukemia and colon cancer experience of workers from some rubber plants. While no convincing job differences were found among workers who died from colon cancers, some of the leukemia deaths may be associated with past work with organic solvents. Such solvents are generally used in the middle and later stages of the tire production process. The findings on stomach cancer, mentioned earlier, is presently under intensive investigation by the OHSG. Additional work is also underway on leukemia and bladder cancer. The goal is to identify the conditions of work which are responsible for any of these cancers, so future exposures can be prevented.

MBERS

LIFE MEMBERS

Six alumni have joined the rank of life members since the last issue of The Body Politic, making the total 36. The new life members are:

Dr. Mary B. Duffy, Knoxville, Tenn. Mrs. Ida Friday, Chapel Hill, N.C. Mrs. Ellen B. Kaplan, Chapel Hill, N.C. Dr. Thomas W. Messervy, Columbia, S.C. Dr. J. Gerome Rinaldi, Atlantic Beach, N.C. Dr. Martha Valiant, Clewiston, Fla.

Life membership dues are \$100. If you would like to become a life member, send your check payable to the School of Public Health Alumni Association to Ms. Harriet H. Barr, c/o Dean's Office, School of Public Health, Chapel Hill, N.C. 27514

THE DEPARTMENT OF EPIDEMIOLOGY 1977 AND BEYOND

Michel Ibrahim



Ibrahim.

There was a time, when epidemiologists had to politely indicate that epidemiology is not concerned with the study of skin diseases. Thanks to (epidemiologic) studies such as those in Framingham and Evans County which identified the risk factors of developing heart attacks and, more recently, the Legionnaires' disease in Philadelphia, epidemiology and epidemiologists have become "household words." This increasing popularity is reflected in the unprecedented number of applications received in our Department last year and the fact that the demand for epidemiologists far exceeds the current supply, as evidenced by available positions which go unfilled.

Epidemiology, (epi: upon, demos: people, logy: study), is concerned with both the biological and the behavioral factors which determine the health of population groups. In its concern with major health problems, our Department has grown and matured to become one of the leading centers for teaching, research in epidemiology and consultation. We believe that disease occurrence in a population cannot be properly understood unless biological and behavioral factors are considered simultaneously.

History and federal funding have resulted in the development of several programs within our Department. These programs, however, represent areas of emphasis which revolve around a common core of epidemiologic skills and approaches.

In principle all epidemiologic interest is environmental, including the interaction of environmental agents with genetic predispositions. However, contemporary health problems arising from the nature of our social institutions have brought about an increasing interest in certain chronic diseases. This has led to the development of our program in environmental epidemiology. The epidemiologist's approach contributes to the understanding of the multi-factor etiology of these diseases. Environmental factors such as the presence of undesirable amounts of chlorinated products in the water, particulate matter in the air, and chemical additives to food are important areas of investigation for various forms of cancer. The potential harmful effect of the occupational environment on the workers themselves is the subject of intensive study by our Department in collaboration with the Department of Environmental Sciences and Engineering and Biostatistics. These investigations cover sixty-five plants and some 60,000 workers in the United States. Research findings have led to recommended changes in the national standards of exposure to certain agents. The research is focused on the study of diseases such as leukemia and cancer of the stomach, prostate, and lung in the workers to identify potential occupational causes; or the study of known occupational hazards to document their health consequences, such as in the case of vinyl chloride and the subsequent

occurrence of liver cancer and other disorders. We are now engaged in the development of information and surveillance systems for the entire industry.

In addition to its traditional usage as an investigative science in the study of the cause of disease and death, epidemiology is being applied to further our understanding of the workings of health services. This area includes the estimation of the magnitude of health problems of a defined community, the ordering of priorities of service programs according to community health needs, and the evaluation of these programs in terms of their impact on the distribution of health and disease in the population. We believe that persons responsible for policy formulation, decision-making and administration must rely not only on political, economic and administrative skills, but also on epidemiologic skills. In collaboration with the Health Services Research Training program in Biostatistics, the U.N.C. Health Services Research Center and the U.N.C. and Duke Schools of Medicine, our Department is working towards the expansion of this area of application. Judging by the national interest and the calibre of our applicants, we expect to be in the forefront of epidemiologic research in health services and medical care.

Along with the epidemiologic analysis of health services for a total population, our program has also been concerned with the study of the interaction between patients and deliverers of services. Within this area of research, a newly emerging discipline, identified as *clinical epidemiology*, addresses itself to the nature of the process of care, the determinants of both patient and practitioner behavior and the outcome of these clinical encounters.

In cardiovascular and cerebrovascular disease epidemiology, we are interested in the elucidation of risk factors — biological and behavioral — responsible for the increased mortality, incidence and prevalence of these diseases in certain groups of the population. For the last twenty years the Evans County Heart Study has provided a research base for our faculty and students. Together with other important studies, the risk factors of elevated levels of serum cholesterol and blood pressure, stress, obesity, physical inactivity, and smoking, have been identified and quantitated. We are now collaborating in national and international community-based intervention programs.

A unique element in this Department is the synthesis of the social and behavioral with the physical, chemical and biological approaches to the health of the population. The importance of man's social environment in determining the health of the population is of major concern in community health research. This component is essential to modern epidemiology. Studies in these areas address how behavioral factors influence the incidence and prevalence of disease, and how these factors interact in the context of the health and

medical care system to influence the acceptance and utilization of health programs and adherence to medical regimens. The behavioral epidemiology program in the Department is designed to provide the mechanism for dealing with these issues.

Finally, our population epidemiology program is concerned with the study of determinants of population size and structure, and the health consequences of these characteristics, as well as intervention strategies. As societies undergo transformation from a rural, dispersed, and under-developed state to an urbanized and industrialized state, there are predictable changes in the composition and fertility patterns of the population. Changes also occur in the type and frequency of various diseases. This phenomenon can be observed within a country or when a whole country undergoes such changes.

Our faculty and students will be working together in the years ahead to strengthen the cancer epidemiology program, expand and sequence our course offerings, and institutionalize the Department's strength in teaching and research. Throughout the history of the Department, we have believed that an academic program in epidemiology should have its roots in the community setting in which the problems and their potential solutions lie. Interactions with practitioners of public health have always been encouraged. We will continue to actively seek the collaboration of our alumni in our efforts to identify relevant areas of teaching and research. We shall rely heavily on our alumni to assist us in sharpening our programs and evaluating their effectiveness.

JOAN W. LINGNER 1938 - 1977

Dr. Joan Lingner, assistant professor of biostatistics, died suddenly of natural causes February 28, 1977 in Manila, Philippines.

She was in the Philippines studying demographic trends of the country as a consultant for the World Health Organization and as a representative of UNC-CH's Laboratories for Population Statistics (POPLAB).

At the conclusion of a four-year collaboration study with Xavier University, Dr. Lingner was awarded a plaque of appreciation which praised her dedication and devotion to duty and genuine human warmth.

Dr. Lingner joined the UNC-CH faculty in December 1970, as an instructor in the Department of Biostatistics. She was promoted to assistant professor in June 1971, after receiving her Ph.D. from the University of Pennsylvania. Her most outstanding contributions were in demography and population research.

Born in Chicago, she earned her B.S. and M.S. from St. Louis University. She was the author of more than 20 publications and a member of several professional associations including Population Association of America, American Statistical Association and American Public Health Association.

PREVENTION PUBLIC HEALTH GAME



Morrow

Prevention is the name of the public health game, Dr. Sarah T. Morrow, Secretary of the N.C. Department of Human Resources told approximately 70 public health professionals from the Southeast. Public health departments must assume more responsibility in prevention and primary care if unwanted and abnormal pregnancy, childhood disease and chronic diseases are to be prevented. Other areas of concern to health departments and health professionals in the state should be the high infant mortality rate, family planning services and identification of handicapped children.

These comments were made in the keynote address at the Regional Conference on Maternal and Child Health, Family Planning and Crippled Children's Services, sponsored by the Department of Maternal and Child Health and the Office of Continuing Education, School of Public Health.

In order to implement equal services to state citizens in these areas, Dr. Morrow said, North Carolina is instituting program standards for all local health departments. In the past we have had all levels of care from one end of the state to the other. No two health departments were providing the same levels of service.

As Secretary of the Department of Human Resources, Dr. Morrow said the health and well-being of children is the number one priority. An assistant secretary for children will soon be added to human resources. Assistant secretaries for aging and for alcoholism and drug abuse will also be named.

Specific child health goals identified in the address included:

- identifying, educating and treating all high risk expectant mothers
- -strengthening programs for mothers and babies before and at birth
- -screening of newborn infants, especially those at high risk
- -screening school-age children
- —increasing responsibility for local health departments, especially in rural areas
- —improving affiliation between rural health services and local health departments
- —improving working relationships among public health departments, hospitals and private physicians
- -obtaining state funding for family planning programs
- —permitting minors to have access to medical services and birth control without parents' consent
- -improving nutritional status of women and children
- -strengthening health education

ALUMNI CONFERENCE EXAMINES QUALITY ASSURANCE

Alumni joined faculty and students to consider issues faced in assuring quality in health services, at the School of Public Health's Annual Alumni Conference, March 24 and 25, 1977.

The keynote address was delivered by Dr. Robert J. Haggerty, Jr., Roger I. Lee Professor of Public Health and chairman, Department of Health Services, Harvard School of Public Health. Dr. Haggerty, head of a 1976 study committee of the National Academy of Sciences, Institute of Medicine to evaluate quality health care, discussed quality assurance in health care.

In his address Dr. Haggerty stated that, although the concept of quality assurance is part of the ethos of medicine, the U.S. became in 1972 the first nation to mandate monitoring of performance. Thus far, the most common method of measuring quality has been to develop criteria agreed upon by the profession and then to assess in given patients whether these criteria have been followed. Dr. Haggerty pointed out that the goal of quality measurement is high quality care, therefore we seek to change provider performance. One important way to bring about this change in Dr. Haggerty's opinion is through an informed public. In the future more self-care, improved health habits through lifestyle change and more participation by the public in how and where to use facilities must be incorporated into medical care. Assessment of quality on a population base rather than on those in the system is needed to identify the significant portions of the population who are currently underserved, he said. The Institute of Medicine study stated that the primary goal of a quality assurance system should be to make care more effective in improving the health status and satisfaction of the population. Dr. Haggerty concluded that our current efforts are helping to achieve this goal.

A panel reacted to Dr. Haggerty's speech, examining his remarks from varying viewpoints of the professional, the consumer, the IOM study director.

The Foard Lecture on Friday evening was presented by Dr. June J. Christmas, New York City Commissioner of Mental Health and Mental Retardation. The 1976 recipient of American Public Health Association's Award for Excellence in Domestic Health and head of President Carter's transition



June J. Christmas and William A. Darity at Foard Lecture



task force on health, said that consumer involvement in health policy and health service evaluation is mandatory. She pointed out that as we seek better quality care attention must be given to incorporating aspects of health care which are important to the consumer into reliable instruments for assessing expectations and satisfaction, providing effective health education and giving guidance in making informed

Until recently consumers were perceived as passive recipients of treatment. The role has been expanded to include policy setting and evaluation, she said. But this gap between the plan and the program is broad and citizen ardor is easily dampened by bureaucratic procrastination. Dr. Christmas stated that as the struggle continues to define and broaden the role of the consumer it is fitting that those who are served should participate actively and exercise control in the development of a more equitable system responsive to consumer efforts to change. In her opinion, the definition of medical care must be broadened to include prevention and rehabilitation and relate as well to social and economic conditions which have impact on people's lives.

She concluded by challenging health professionals to renew their commitment to quality and human values which each of us as consumer, as health worker and as U. S. citizen must share.



General session participants - Left to right: Van Allen, Sarah Morrow, Robert J. Haggerty, Cecil G. Sheps, Linda Demlo and Sam Shapiro.

choices.

DARITY, LORD WIN SPH HEALTH AWARDS



Grace Hamrick, General Alumni President, greets SPH alumni at the Awards Luncheon

Two alumni of the School of Public Health received awards for their achievements in the public health field. The awards were presented at the annual alumni luncheon at the Carolina Inn, March 24, 1977. Dr. William Darity, dean of the School of Health Sciences at the University of Massachusetts at Amherst, won the Distinguished Service Award. Dr. Margery J. Lord, the first woman appointed to administer a health department in North Carolina, received a presidential citation for her contributions and dedication to public health during her 50-year career.

The Distinguished Service Award was established last year by the School's Alumni Association to "recognize the achievements of alumni in the field of public health as well as their civic, political and other contributions to the community."

Dr. Darity was honored for many achievements, including his service to the World Health Organization and research on the availability and accessibility of health services. He has also studied barriers to family planning and consumers attitudes toward health delivery. Through his efforts a Department of Public Health developed into a fully accredited 19th school of public health at the University of Massachusetts. In 1975 he received the American Public Health Association's Poindexter Award for his contributions to the field of public health, particularly in relation to



Elizabeth L. McMahan presents Presidential Citation to Margery Lord

minorities. A North Carolina native, Darity earned his B.S. at Shaw University, M.S.P.H. at N.C. Central University and Ph.D. at UNC-CH. He is the son of Mr. and Mrs. Randall Darity of Flat Rock.

Following several years in the private practice of medicine, Dr. Lord attended the School of Public Health. She attributes her interest in prevention to this experience. She served as a school physician and health officer for Asheville and administrator of Asheville's educational division of the Board of Alcohol Control.

Dr. Lord, who is 82 years old, started many innovative health services, among them a 1942 venereal disease clinic for women and pioneered efforts in mental health and alcohol education.



Participants in the Blee-Hay Award presentation. Left to right: Cherry Beasley, Carol Simpkins, B. G. Greenberg, Mary Mundt, Dorothy Talbot.

FIRST BLEE-HAY AWARD PRESENTED

The first Margaret Blee-Ruth Warwick Hay Award was presented to Mary Mundt, a public health nursing student in the School of Public Health. The award, honoring the cofounders of the Department of Public Health Nursing, was presented Thursday, March 24, during the School of Public Health Alumni Conference. Ms. Mundt of Milwaukee, Wis., is in the teacher preparation tract in the Department and plans to teach in a college school of nursing upon completing her master's degree here.

The award, to be presented annually, honors one student in the Department of Public Health Nursing who shows scholarship and leadership potential and who has the ability to relate academic studies to community practice. Also receiving recognition at Thursday's presentation were Carol Simkins of Durham and Cherry Maynor Beasley of Pembroke. Ms. Simkins is studying for a master's degree in public health nursing administration. Ms. Beasley is a first-year student in the public health nursing teacher preparation tract.

Margaret Blee and Ruth Warwick Hay came to UNC-CH in 1941. Both retired in 1962 after 21 years of outstanding service to public health nursing practice and teaching in the Department of Public Health Nursing. Miss Blee died in February, 1977, and Miss Hay in 1972.

KOOMEN CHOSEN PRESIDENT

Jacob Koomen, director of the N.C. Division of Health Services, was installed March 24, 1977 as fourth president of the School of Public Health Alumni Association. He succeeds Richard House, director of continuing education in the School.

Koomen and other new officers were installed at the annual alumni luncheon during the School's two-day alumni conference. The new vice-president is Howard Barnhill, director of Area Health Education Centers in the School's Division of Community Health Service and associate professor of health education.

Public health nursing consultant Eris Russell of Black Mountain, N.C. is secretary. Dorothy Hays, a Winston-Salem regional nursing consultant of the Division of Health Services, is treasurer.

Four alumni were elected to the board of directors. They are: George Dudney, assistant chief, Dental Health Section, N.C. Division of Health Services; Mary Duffy, health director, Knox County (Tenn.) Health Department; Joan Cornoni Huntley, special assistant to the director of statistical research, National Center for Health Statistics; and Emily Tyler, director of health education, Guilford County Family Planning Program.

Russell Richardson, professor in the Emory University School of Medicine has been chosen as a member of the nominating committee.

Your participation in the Alumni Association is encouraged by submitting your suggestions for programs and projects to the officers and directors.

OFFICERS AND DIRECTORS

President	Jacob Koomen	P.O. Box 2091 Raleigh, N.C. 27602
Vice Pres.	Howard Barnhill	Dept. of Health Ed. UNC-CH Rosenau Hall 201H Chapel Hill, N.C. 27514
Secretary	Eris Russell	P.O. Box 98 Black Mountain, N.C. 28711
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Directors 1978	William A. Darity	Dean of Health Sciences University of Massachusetts Amherst, Massachusetts 01003
	William Burns Jones	P.O. Box 2091 Raleigh, N.C. 27602
	Margaret B. Pollard	AHEC, Wake Mem. Hospital 3000 New Bern Avenue Raleigh, N.C. 27610
	Jane Wentworth	VPI & S.U. Blacksburg, Va. 24069
Directors 1979	Betty Eller	1708 W. Friendly Ave. Greensboro, N.C. 27403
	Lydia S. Holley	AHEC Room 125, Victoria Wing 509 Biltmore Avenue Asheville, N.C. 28801
	Mabel S. Johansson	826 Evernia St. Box 29 West Palm Beach, FL 33402

	William T. Small	UNC-CH, Rosenau Hall 201H Chapel Hill, N.C. 27514
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	Mary B. Duffy	4055 Valencia Road Knoxville, TN 37919
	Joan C. Huntley	4920 Sentinel Drive Bethesda, MD. 20026
	Emily Tyler	312 N. Eugene St. Greensboro, N.C. 27401
	B. G. Greenberg	Dean School of Public Health Chapel Hill, N.C. 27514
	Fred Levick	Student Union School of Public Health Chapel Hill, N.C. 27514
	Richard House	School of Public Health Chapel Hill, N.C. 27514
Nominating	g Committee	
1978	Estelle Fulp	P.O. Box 2091 Raleigh, N.C. 27602
1979	Jay L. Allen	E. Tennessee State U. College of Health Johnson City, TN 37601
1980	Russell Richardson	1854 Chancery Lane Chamblee, GA 30005

CONTINUING EDUCATION DIRECTOR APPOINTED

Richard M. House has been appointed director of continuing education for the School of Public Health.

He has been acting director since July 1976.

The continuing education unit sponsors more than 100 programs each year in coordination with the School's faculty and numerous organizations throughout the state. More than 5,000 public health professionals annually attend these courses, workshops and conferences.

According to Mr. House, continuing education gives the School the opportunity to reach both scientists and professionals in the field. Programs are designed to update their knowledge and reduce the lag time between research and practice. In addition, courses are offered in areas not generally covered in existing formal educational programs.

Prior to his work in public health continuing education, Mr. House served as health standards administrator for the N.C. Division of Health Services.

Since receiving his master's degree in public health from UNC-CH in 1969, Mr. House has served as president of the School of Public Health Alumni Association and a member of the board of directors. He has also been a member of the board of directors for the American Academy of Health Administration and the governing council of the North Carolina Public Health Association.

Mr. House began his career in public health as a field epidemiologist and venereal disease program district supervisor for the U.S. Public Health Service. In 1969 he returned to North Carolina to serve as chief administrator for the Chronic Disease Branch in the Division of Health Services.

LUMBEE INDIANS HAVE SPECIAL HEALTH PROBLEMS

Carolyn Portier

Cherry Maynor Beasley has a special reason for wanting to receive an M.S.P.H. in public health nursing: she intends to return to her community of Lumbee Indians near Lumberton and work towards solving their unique health problems. Now in her second semester of the four-semester public health program, Ms. Beasley can only talk about returning to work with her people.

The Lumbee Indians are perceived as "bourgeois" Indians by some other Indian tribes, she says, because "they own land and tractors and wear boots," and because legend has it they are the descendants of members of John White's Lost Colony. Presently there is a bill in Congress to establish the Lumbee as a certified tribe and in that way grant them rights as a tribal number with the Bureau of Indian Affairs. This will pave the way, she explains, toward receiving needed funds for special problems, like the health-care needs.

North Carolina's Roberson County is the official home of the Lumbee. About 6,000 of the approximately 10,000 Lumbee in the country live there. The Lumbee in North Carolina have never lived on reservations. Very few moved away from Roberson County and rarely have they married outside the community.

Ms. Beasley is among the first generation of Lumbee Indians to enter full force into the health field in North Carolina. There are presently six Lumbees in the School of Medicine, three in the School of Dentistry and three in the School of Public Health.

Her reasons for wanting to go back include not only a strong desire to return to the slow-moving, close-knit life style of the community; but also because she sees the community's health needs as a real challenge for any health

professional.

A registered nurse, Ms. Beasley spent a year as a school nurse in Roberson County before entering the public health nursing program here. That year made her fully aware of the unique health needs of the Lumbee that are not being met through traditional channels. She says the primarily rural Lumbees, usually farmers, do not adequately use the public health department services available in Lumberton, because there is a stigma attached to "going to Lumberton" for medical care. Not only is Lumberton urban and therefore strange to the Lumbee, she says, but it is associated with political and racial problems from the past.

The most pressing health needs of her people, she says, are nutrition and health education. Hereditary diseases linked to inbreeding, like diabetes and hypertension, are very common. The latter can usually be controlled by special diets, but Ms. Beasley has found her people to be very resistant to changes in diet. "It's not that they eat strange 'Indian foods,'" she says, "but the combination of following such Southern traditions as cooking with grease and eating too much salt with the inbreeding problems makes controlling these diseases more difficult."

Health education is a great problem, she says, "Many of the health problems of the Lumbee could be prevented if they only knew what to do for themselves." Examples of such preventable health problems, she says, are high infant

mortality and tuberculosis, as well as the nutrition-related problems. "Suicide is also a problem because of lack of selfesteem common to many Indian people, and because of mental disorders resulting from inbreeding."

Beasley feels that nursing is the best way for her to help her people. She was awarded a national Indian Education Fellowship from the DHEW because she wrote an essay explaining why she felt her people needed public health nurses. Notice of the award, however, came after she had already accepted a fellowship from the School of Public Health that paid for all of her education needs.

"Nursing," she says, "is simply helping people do what they would do for themselves if they knew how. Nursing can help the Lumbee become more independent, making them more confident and proud, by giving them information on their health. Because nursing deals with all aspects of the human being, it can help them obtain their highest level of capabili-

The public health nursing program at UNC-CH, she says, is greatly helping her prepare for her later career. It allows each student to design their own course load to fit their career plans. Presently she is specializing in pediatrics and teaching. "By specializing in pediatrics, I can start changing the situation by first improving the overall health of the children. A lot of health care these days is aimed at reaching the mothers and infants and preventing future problems. The pediatrics speciality will also give me the qualifications needed to teach other nurses in the area about how to put the different principals of practice to work."

Being a Lumbee married to a Lumbee, Ms. Beasley doesn't feel she will have trouble being re-accepted by the community. Her husband, Charles, is presently a first-year medical

student at Duke University.

The community is skeptical of outsiders, she says, and it even watches those from within the community who go away for some time. "They notice whether your accent changes or what attitudes and life styles you've come to accept. The fastest way to lose the community's trust is to forget you're Indian, to forget your people." Ms. Beasley has two points in her favor already.



Beasley

GREENBERG REAPPOINTED DEAN

Dr. Bernard Greenberg has been reappointed to a second five-year term as dean of the School of Public Health. The announcement of the reappointment was made by Chancellor Ferebee Taylor following approval by the UNC-CH Board of Governors.

Greenberg, Kenan Professor of Biostatistics, joined the faculty in 1949 as associate professor and started the Department of Biostatistics.

During his past five years as dean, Greenberg has increased the commitment of the School to North Carolina by developing community service, providing technical assistance to state health agencies and increasing in-state enrollment and continuing education.

This commitment to the state will be continued by expanding the development of the off-campus master's degree programs and by establishing additional undergraduate degree programs in public health. Begun in the fall of 1976, the undergraduate program includes majors in health administration, health education, nutrition and biostatistics. Greenberg hopes to extend the undergraduate program to include a major in environmental sciences and engineering in the near future.

Several programs sponsored jointly by the School and by other schools and departments on the UNC-CH campus are being initiated. Beginning with the fall semester 1977 students wanting to earn the Master of Public Health degree and either the M.D. or D.D.S. degree will be able to do so through new collaborative programs with the schools of medicine and dentistry. A joint program with the Department of City and Regional Planning is also being considered. "The person with training in both city planning and public health," he said, "will be able to plan a city to avoid the hazards to public health caused by many factors. That person will also know where best to locate schools, health facilities and other clinics to meet public needs." Law and public health will be taught next fall by a professor from the School, with a joint appointment to the School of Law, Greenberg said. The professor will teach courses for public health students and try to interest law students in the field of public health as an area of application.

The greatest need of the School of Public Health at this time, according to the dean, is an increase in laboratory space, especially for scientists in the Department of Environmental Sciences and Engineering. A great amount of research in North Carolina's ability to utilize water, coal and nuclear forms of energy has been conducted by ESE scientists, he said, but efforts to expand and increase this research have been hampered during the past five years by a lack of laboratory space.

Some of the areas the School is working in include nuclear waste disposal and protection from radiation leakage from nuclear plants, water pollution, air pollution from burning coal and oil and reclamation of land torn up by strip mining. "We alone are concentrating on the safety aspects of the problem," he said, adding that N.C. State University and A & T University are doing research into alternative sources of energy.

The ESE department is one of the strongest in the world because of its select faculty, he said. It is also the only such department with such diverse talents within a school of public health. "But you need three things to solve health and energy problems: the right people, money for research, and space," Greenberg said. "We have the people, and because of their expertise, federal agencies are just begging us to take on funded projects in this area that could affect North Carolina and the nation. We just do not have the space we need to continue our work.

NEW HSA CHAIRMAN

Dr. Harry Phillips (HADM) new chairman of N. C. Capital Health Systems Agency, said that he hopes this coming year will be the "year of the consumer."

Dr. Phillips was referring specifically to consumers of health care. The 55-member board that he will head for the coming year has, under federal law, a majority of consumer members. Twenty-nine are consumers; the other 26 are health-care "providers" physicians, nurses, etc. Although he recognizes that the board is weighted in favor of the consumers, Dr. Phillips said the providers usually have more clout. There is a tendency for the consumers to be too humble, too reticient, too afraid to ask questions, an attitude he would like to see change during his term as chairman.

The biggest gap within our agency so far has been the lack of input for the consumer, Dr. Phillips feels.

The health agency was created in late 1975 out of two regional health planning boards. Its jurisdiction now extends over 11 counties. Its function is basically advisory. When new hospitals or other health facilities are proposed for a county, the agency is asked to review the plans to determine whether a need exists. If it rules against the proposal, the federal government may deny funds both for construction of the project and for the health care it later provides.

Most of the money received by the Health Service Agency is federal, and to get the funds, the agency must hold a public hearing to allow inspection of and comment on its plans for the year.

The work plan presented by the executive director, George Stockbridge, included:

- Coordination of planning health care programs and projects. It is the aim of the agency to get maximum results from the time and money spent.
- Increasing public involvement in the planning process. To help achieve this aim, the agency plans to create sub-area councils. Under one such arrangement there would be three sub-areas, each composed of from three to five counties in the district.
- Defining a healthy environment.
- Determining the appropriateness of health programs. The elements of appropriateness have not been decided, making judgments difficult.

Alumni who are members of the Board are John C. Key (HEED), Annette Boutwell (HEED) of Raleigh, N. C. and Jane Wooten (MCH) of Raleigh. Lou Orban (HADM) and Anita Page Williams (HEED) of Durham are members of the staff.



ON CAMPUS

FACULTY AND STUDENT NEWS

The Division of Community Health Service will sponsor the third annual Health Directors' Workshop to be held in May in Burlington, N.C. The North Carolina Association of Local Health Directors is co-sponsor. The program will feature discussions of primary health care, personnel performance evaluation and individual on-site wastewater disposal systems. Charles L. Harper, (HADM), is director.

Martin Hines (HADM) Chief of the Epidemiology Section, N.C. Division of Health Services, has been honored by the Association of Military Surgeons as the first recipient of the James A. McCallum Award "for outstanding accomplishments in the field of medicine and health."

The Health Education Department is conducting a study on employment of women treated for breast cancer in Alamance County, N.C. Supported by an American Cancer Society Institutional Grant, the study is designed so that the results will aid professionals in planning medical and psycho-social programs for women who have had mastectomies. Jo Anne Earp is project director, student Nancy McCharen is administering the questionnaire.

Spring break saw Robert R. Robinson, (PHNU) and seven PHNU students in Washington, D.C. on a tour of health-related federal agencies, legislative committees and professional organizations. The tour was part of a course designed to acquaint community health nurses with resources for technical assistance at the federal level.

North Carolina's recently developed standards for program services in local health departments prompted a series of eight workshops held throughout the state in March and April. "Standard Public Health Services and Their Impact on: Consumers, Boards of Health, County Commissions and Health Department Staffs" was sponsored by the SPH Office of Continuing Education, the N. C. Division of Health Services, the N. C. Health Directors Association and the Citizens Task Force on Public Health. Richard M. House and Charles L. Harper, (HADM) discussed the process of developing standards at several of the workshops.

Stephan S. Putnam (HEED) has been elected to membership in the National Training Laboratory Institute, a Washington D.C.-based network of human relations professionals who design and staff personal and professional growth programs for individuals, organizations, and companies in the United States and abroad.

Allan Steckler (HEED) Jim Burdine and Rosi Loeffler (HEED), graduate students, conducted a training retreat on planning and decision-making for the Capital Health Systems (HSA) Board, in Myrtle Beach, S. C. in February.

James E. Watson, Jr. (ESE) has been selected chairman of a steering committee for a project sponsored by the Health Physics Society to upgrade the quality and usability of environmental radiation data. The committee includes scientists from federal agencies, state governments, industries and universities.

Morris Shiffman (ESE) chaired a workshop session on environmental management and policy issues in North Carolina at the February joint NCSU/UNC-CH faculty workshop on North Carolina Environmental Options. Other department participants were Russell Christman, Emil Chanlett, Donald Willhoit and James Watson.

Daniel A. Okun (ESE) presented a paper in Indianapolis, Ind. in February for a water quality conference sponsored by the League of Women Voters and the School of Science, Indiana University, Purdue University at Indianapolis. He also participated in a workshop on water company lands in March sponsored by the Yale School of Forestry and Environmental Studies and the Natural Resources Council of Connecticut, Inc. Okun's review of the book, "We Didn't Wait for the Rain," was the lead article in the January issue of Water, Journal of the National Water Council, England.

John Hatch (HEED), was the keynote speaker at a Conference on Child Abuse and Neglect sponsored by the Social Services Dept. of Scotland County. The Conference was attended by approximately 75 teachers, nurses, ministers, social workers, law enforcement officers, court officials, and public health workers.

Guy W. Steuart (HEED), has been appointed external examiner by the Department of Social and Preventive Medicine, University of Ibadan, Nigeria, where he will participate in the final examination of candidates for graduation.

Godfrey Hochbaum (HEED) participated as principal behavioral scientist on the Blue Ribbon Committee of the National Dairy Council. The Committee is composed of nutritionists, educators, and behavioral scientists from throughout the U.S. It is charged with the development of a nationwide K-12, nutrition education program. Dr. Hochbaum has been chosen to

serve on a planning panel on ethical and professional issues in health education, convened by the National Center for Health Education.

Charles L. Harper, Arnold D. Kaluzny and James E. Veney are currently engaged in a study of administrative roles in local North Carolina health departments. Sponsored by the Bureau of Health Manpower, DHEW, the study involves questionnaires and a series of seminars. Approximately 150 representatives from 16 health departments across the state attended the seminars. The goals of the seminars are for participants to share their perceptions of their own administrative skills and responsibilities of health department program priorities. Based upon this study, recommendations will be made regarding continuing education programs and curriculum design for full-time students in the

A new course in nutrition for potential members of health teams was offered this spring with **Joseph Edozien** and **John Anderson** as directors. The course is designed to provide knowledge of nutrition and its application to human health and disease.

Under a joint sponsorship of the departments of biostatistics, sociology and statistics and funded by the National Science Foundation, a second symposium on survey sampling was held in April.

Ronald W. Helms (BIOS) chaired the second annual Statistical Analysis System Users Group international conference. Dr. Helms is president of SAS. Wendell C. Smith (BIOS) also chaired a session at this conference

H. Bradley Wells (BIOS) succeeded Forrest E. Linder (BIOS) as director of the International Program of Laboratories for Population Statistics (POPLABS) on January 1, 1977. Dr. Linder will continue in the department until June 30, 1977 at which time he will move to Washington, D.C. to become president of the International Institute for Vital Registration and Statistics.

The Society for Technical Communications Publications Competition made regional awards to thirty publications from UNC-CH. Cited for merit was Family and Health, An Epidemiological Approach by Berton H. Kaplan and the late John Cassel (EPID) and ESE Notes edited by Nan Burby.

Chirayath M. Suchindran (BIOS) has been awarded a federal grant to investigate the consequences of adolescent pregnancy and child bearing in the United States.

Arthur Stern (ESE) is editor of Volume III

Measuring, Monitoring, and Surveillance of Air Pollution published in December by the Academic press.

The Water Resources Research Institute has recently released a report on open space and urban water management. Authors are **Maynard M. Hufschmidt,** Department of City and Regional Planning and ESE and Karl Elfers.

An article "Seasonality in Water Related Intestinal Disease in Guatemala" by R. Schneider, R. W. Helms (BIOS), A. C. Turner and Morris Shiffman (ESE) appeared in the International Journal of Biometeorology. The article discusses the influence of improvements in community environment on the prevalence of diarrheal disease in the Guatemala study.

The WHO report, "Administration of Environmental Health Programmes: a Systems View," by Morris Schaefer (HADM) has been published at the request of the governments in the English, French, Spanish and Turkish languages.

Earl Shaeffer (MCH) presented the second lecture in the series "The Family: Past, Present and Future" sponsored by the woman's studies curriculum. He discussed methods of involving parents more directly with teachers in the education of children and with health professionals in the home health care of children. Dr. Shaeffer is exploring the feasibility of health and education institutions supporting parents by providing training and emotional support in raising their children.

Tony Whitehead (HEED) taught a course on the Black family through the Independent Study Program of the Extension Division. With Alex Haley's novel and the "Roots" television program as a backdrop, the course focused on the continuity of one family over two centuries and how family members were altered by events.

C. Davis (BIOS), deputy director Lipids Research Clinic Program was awarded a WHO fellowship this spring for travel to Switzerland, Sweden, Belgium, and The Netherlands to study statistical aspects of collaborative medical studies.

Ralph Boatman (HEED) has been named to the governing council of N.C. Public Health Association.

Bernard G. Greenberg (BIOS) and dean is chairman of the Awards Committee for the American Public Health Association. In April, Dr. Greenberg travelled to Kuwait at the invitation of the government to discuss possible relationships of the School of Public Health in training health workers for that country.

Berton H. Kaplan (EPID) has been named to a new National Institutes of Health study section on behavioral medicine. Dr. Kaplan has been appointed visiting professor of sociology, Department of Sociology, Stanford University, California, to present a public lecture series for summer, 1977. The National Institute of Occupational Safety and Health sponsored a meeting in February in Rockville, Md. to discuss plans for a mortality, medical and industrial hygiene study of styrene workers. This research will study a cohort of workers in one or more styrene monomer type operations. Allan Smith (OHSG) attended to assess the relevance to the studies in progress of styrenebutadiene synthetic plants.

Three technical reports of the Highway Safety Research Center were cited for merit by the Society for Technical Communications. These included two, "Evaluation of the North Carolina Habitual Offender Law" and "The Evaluation of the North Carolina K-9 Traffic Safety Curriculum" coauthored by Patricia F. Waller (HADM).

"Public Pages" is the title of the new public health students newsletter. Edited by Vickie Motley, the first issue was published in February. Representatives to the Student Union Board are BIOS - Kant Bangdiwala and Jimmie Givens; ESE - Mike Dziamba; EPID - Leslie Greene; HADM - Jane Forrester, Darius Moss, Susan Parker; HEED - Kathy Visocki; MCH - Richard Atwood; NUTR - Martha Cornwall; PALP - Louisa Chapman; and PHNU - Maria Conners; Black Caucus, Doris Magwood. Officers are chairman, Fred Levick; vice chairman, Richard Atwood; Secretary, Louisa Chapman; Treasurer, Mike Dziamba.

Mitch Weisberg, (HEED) course manager for HEED 33 (Human Sexuality) has been elected to membership in the American Association of Sex Educators and Counselors, as a certified sex educator. Mr. Weisberg, who has been teaching the undergraduate human sexuality course for three years, has served as consultant for the state family planning branches in North Carolina, Virginia, and Pennsylvania.

As student health advocate, Betty King (HEED) coordinated a series of seminars on health. The series included programs on health policy issues, health and law, nutrition and consumer health. SPH faculty members who participated are C. Arden Miller and Terry Bazzarre.

David Babcock and John S. Young, Jr. (ESE) in the Water Resources Engineering Program area presented a paper at the 1977 Annual Conference of the American Water Works Association in Anaheim, Ca.

Upcoming legislation to eliminate use of "no deposit-no return" beer and soft drink containers will save energy and create more than 1000 new jobs according to research findings of **Bill MacDowell**, (ESE). A noticeable change will also take place in the appearance of roadsides and parks. MacDowell spent the past year researching the economic and environmental impact in North Carolina of the proposed "bottle bill" legislation as a part of his final technical paper.

PERSONNEL CHANGES

Appointments and Promotions

Craig D. Turnbull (BIOS) to associate professor, effective January, 1978.

Leave of Absence

M. Elizabeth Brannon (NUTR) January - June, 1977.

Resignations

James C. Brown (ESE).



JO PATTERSON HONORED

Readers, especially those formerly affiliated with the Department of Environmental Sciences and Engineering, will be interested in the announcement of Jo Patterson's retirement as of March 31, 1977. Plans for the occasion were adapted to Jo's personal involvement in the illness of her husband, David, who is recovering from major surgery.

The entire School honored Jo's career which began in the basement area in Mac-Nider Hall where the School of Public Health was housed twenty-six years ago. In the fall of 1962 the Dean, Dr. E. G. McGavran, moved his professional "family" under the roof of its new home, Rosenau Hall. The main offices of ESE were established on the first floor of the north wing. Here Jo participated in and observed the rapid developments in the School and Department.

By nature, Jo conducted her activities according to her personal standards. These included an aim for excellency and a carefully fostered comprehension of her Department, not only as a unified whole but also as an essential dimension to a larger responsibility, the School of Public Health. The School was her home away from home because she cared about its image, its service, and its position in the guardianship of the nation's health,

What Jo is gave direction to her dedication and in turn, the Department gave her its unqualified confidence. The resultant combination worked long and well. Faculty, staff and students will miss Jo very much.

COMMUNICATION MAJOR PROBLEM IN MEDICATION ERRORS

Patients who don't understand their doctors' drug orders may not take the prescribed medication or may even take the wrong medication, according to a study conducted by Dr. Barbara Hulka, Department of Epidemiology. Over 50 per cent of the patients involved in the study were making some error in taking their medication.

Dr. Hulka's study involved 357 patients with diabetes mellitus or congestive heart failure, chronic diseases requiring daily medication and often more than one type of drug. Following medication schedules prescribed by a physician is vital for health maintenance of such patients. Up to 19 per cent of those surveyed, however, failed to take the drugs prescribed. Nineteen per cent took medications that their regular physician did not know they were taking and 17 per cent took prescribed medications at the wrong time. More than half of the patients were making potentially dangerous errors of some kind.

Many of these mistakes can be avoided, Dr. Hulka said, if physicians would prescribe fewer drugs, give less complex medication schedules and have better doctor-patient communication. The major problem noted was communication. When patients are informed and understand how drugs are to be taken and the purpose and time for taking the drugs 85 per cent took their medications correctly. The study also reveals that the more drugs prescribed and the greater the complexity of scheduling, the higher the error rate. Unlike those of previous studies, the results of this study show that patient disregard for doctors' orders was not the problem.

The research team suggested physicians try to communicate their instructions better, even if it means writing out instructions. They also suggested that patients be asked to bring to the doctor's office all medications they are taking and to explain how each is taken. This procedure would ensure that patients are not taking medications other than those prescribed by the regular doctor. Combinations of prescribed drugs can adversely affect the patient or even cancel out the effect of the most important drug. Just as it is the patient's responsibility to follow the physician's instructions, it should also be the physician's responsibility to know if and how often patients take their drugs.

Dr. Hulka conducted the study in Ft. Wayne, Ind. Coinvestigators were Dr. Lawrence Kupper (BIOS); the late Dr. John Cassel, (EPID); and Dr. James Burdette, chairman of Family Medicine, University of Kentucky at Lexington.



B. G. Greenberg presents Shell Award to Russell Christman

ESE RECEIVES AWARDS

The Environmental Sciences and Engineering Department has been awarded \$6,000 by E. I. duPont de Nemours and Company for use at the discretion of the department. The Shell Oil Company also renewed a Shell Aid grant for \$5,000 to the Department.

A past recipient of the Du Pont awards, the Department has used the funds for the last several years to support "ESE Notes," its quarterly publication. As one of the oldest and most diversified in the country, the Department uses this publication to keep alumni and other professionals abreast of research and new developments in the field. Each issue focuses on one of the five areas of study in the program and a special fifth edition features the students in the department and their research.

The Shell Aid gift of \$5,000 will be used by the Department for studies of hypersensitive persons. Donations of this type are a valuable asset to the School for expenses in research projects or educational programs not covered in the regular budget. Last year the Shell Aid grant purchased an infrared analyzer that was used for studies of exposure of operating room personnel to waste anesthetic gases. The analyzer also is being used in other research projects and in instruction in the industrial hygiene program.

ADDRESSES ANYONE?

Edwin T. McKeithen Robert B. McKenna Dorothy C. McKenzie William McKinnery Harry H. McLean Alice O. McMichael Annie McNaught Faye McNaull Carrie T. McNeil Anna E. McRight Terence McSherry Zola H. McWilliams Lena G. Meck Sakol Meekangwal George M. Meichen Henry Merrill
Jonathan M. Metsch
Mary B. Harris Michal
Estelle Mikell
Roberta Milar
Robert C. Miles
Adah Miller
Frances E. Miller
Fred W. Miller
Kathryn Miller
Stephen Miller
Fern H. Mims
Kathryn P. Mitchell
Charles E. Moak
Truman L. McCasland

SERVICE AWARD PRESENTED

The Theta Chapter of Delta Omega, the national honorary public health society, presented its service award and inducted twelve new members Thursday, March 24.

The Delta Omega Service Award was presented to Myrna Aavedal of Chapel Hill, a doctoral candidate in epidemiology and an M.P.H. graduate in biostatistics. She received the award for service to her Department and to the School. Aavedal has been a member of the School's Student Union Board, president of the Student Union and a student representative to the Dean's Cabinet and the Alumni Association for the past two years. She is also an active member of Sigma Theta Tau, the national honorary nursing society.

New Delta Omega members and their area of study are: master's degree students Linda Mashburn of Marshall, health administration; Cherry Maynor Beasley of Pembroke, public health nursing; Rosie Loeffler of Seranton, Iowa, health education; Nancy Woods of Durham, epidemiology; Martha Jean Cornwell of St. John, Kansas, nutrition; and James Amos Jones of Raleigh, maternal and child health.

Doctoral student inductees are: James O'Connell of Chapel Hill, parasitology and laboratory practice, and Kathleen Bucher of Lakewood, Colorado, biostatistics.

Dr. Russell Christman, chairman of the Department of Environmental Sciences and Engineering, and Dr. Godfrey Hochbaum, professor in the Department of Health Education were the two School of Public Health faculty members inducted into the society. Kathleen Parker, health education, Continuing Education for Health Sciences, Chapel Hill and Gary Lewis, health education, Snow Camp, N.C. were inducted as alumni members.

Delta Omega, established in 1924 at Johns Hopkins University, recognizes and encourages scholarly achievement in graduate students, faculty members and alumni of schools of public health nationwide. The Theta chapter of Delta Omega was established at UNC-CH in 1953.

MARGARET BLEE 1892 - 1977

Margaret Blee, 85, a former public health nursing professor at the School of Public Health, died February 17, in Lexington, Mo. Miss Blee had been incapacitated for some months before her death.

Miss Blee taught in the Department of Public Health Nursing in the School of Public Health from 1941 until her retirement in 1962. Prior to joining the U.N.C. faculty she taught at the University of California at Berkeley.

A registered nurse, she held a B.S. degree in social welfare from Missouri University and a master's in education degree from Mills College.

The first Blee-Hay Award was presented during the Alumni Conference, March 1977, to a public health nursing student.



Floyd McKissick addresses Black Health Conference. Left to right: B. G. Greenberg, Doris Magwood, McKissick, Fred Levick.

OF BLACK POPULATIONS

"Health cannot be separated from the rest of society — Health is business, health is politics and health is understanding a bureaucracy" commented Floyd McKissick in the keynote address on perspectives on the health of black populations.

The Conference held March 30 and 31 at the School of Public Health was sponsored by the Black Student Caucus and the Student Union Board of the School of Public Health.

Mr. McKissick is president of the Soul City Company and founder of Soul City. Health is affected by all other areas of society, he said, and cited Soul City as a classic example.

Pointing to the fact that all areas of life are controlled by politics and economics, Mr. McKissick said that blacks need to become more sophisticated to survive in this type of society.

When one deals with racism as a moral problem all that is needed is a strong commitment, a sense of organization and a willingness to endure pain and humiliation. He defined this new kind of racism "institutional racism" and said that as long as it exists society will never be truly integrated, minorities will remain at the bottom of the social ladder.

In conclusion Mr. McKissick feels that the struggle of the '60's for integration has not yet been won. Health is one of the many facets upon which we must concentrate.

Following the keynote address various aspects of the health of black populations were explored on panel discussions on black involvement, barriers and rural and international health. In addition to School of Public Health and other UNC-CH faculty, panelists included William A. Darity, dean, School of Health Sciences, University of Massachusetts at Amherst; Ruth Dennis, professor of psychiatry at Meharry Medical College; and Clay Simpson, Department of Health, Education and Welfare.

OFF CAMPUS

ALUMNI NEWS



Class of 1944

Lucille Brownell (HEED) was named teacher of the year for 1976 at New York State University at Stony Brook. Since receiving the award, Lucille has retired and is living in New York. Jean Christopher Eberhart (HEED) as liaison between SOPHE and the United Nations, attends briefings and shares the points of interest to health education.

Class of 1945

Cassie Smith Feagen (HEED) has retired as associate director of health education, Mississippi State Board of Health. Frances Kornegay (HEED) of Mt. Olive, N.C., recently retired as director, Wayne County Head Start Program.

Class of 1946

Eloise Aultman (HHED) has been actively involved in a project seeking private funding for study of the Orleans Parrish Schools through the League of Women Voters.

Rosemary Kent (HEED) Pittsboro, N.C., visited Kenya and Tanzania on an African safari in December. Sarah E. Walker (HEED) of Concord, N.C., is membership chairman for the N.C. Literary and Historical Association of Cabarrus County.

Class of 1949

Dora Tiglao (HEED) has returned to the Philippines and resumed her position at the University of Manila.

Class of 1950

Emma Carr Bivins (HEED) is serving on a national committee writing the health education component into guidelines for the Rural Health Initiatives projects. Berdelle Taylor Campbell (HEED), recently named to National Board of Directors of Planned Parenthood Federation of America, serves as chairman of South East Regional Council, PPWP and president of Planned Parenthood Association of Nashville. Berdelle has worked as planner-coordinator of Family Planning Division of Tennessee Department of Public Health and as a lecturer in USAID Africa Training Program for health professionals, Meharry Medical School, Nashville.

Class of 1951

Isom H. Herron (HEED) is training coordinator USPHS, Atlanta, Georgia. Chris W. Nutter (HEED) and her husband, Bob, honored their prize Holstein, Maview Sadie Rockman, who was recently named the first Holstein national butterfat champion in North Carolina.

Class of 1954

Jo Goulson (PALP) began wood sculpting eight years ago. Since that time her hobby has become a livelihood. This spring her work was on display at the Southeastern Art Show in Chapel Hill, N.C.

Class of 1956

Zuhair Tarabulsi (BIOS) writes that his new assignment in Aden includes training health personnel and planning a vital and health statistical system adaptable to defining health problems and evaluating programs.

Class of 1957

North Carolina Division of Health Services has issued health service standards for local health departments. Meetings are being held across the state to discuss the guidelines. The standards program is under the direction of Isa Grant (MCH) assistant director for local services. Etra P. Wood is director of the health standards program. Becky S. Bowden (HEED) has been elected to serve on the Board of Managers for the N.C. Congress of Parents and Teachers. Becky will be involved in the Health and Welfare Committee and the Parenting Project.

Class of 1958

William Barton (HADM) writes that he participated in training programs for WHO in Brasilia, Manila, and Alexandria during the past year and in the 250th anniversary celebration of the medical faculty in Edinburgh, Scotland. Howard Gailey (HEED) has been named acting director for the Guilford County Health Department. Howard joined the staff as a health educator but has held an administrative position since 1973. Ralph Boatman (HEED) Continuing Education in Health Sciences and William Byrd (HEED)

associate dean, School of Allied Health and Social Professions, East Carolina University, served as resource persons for the Third Annual Workshop on Proposal Development sponsored by N.C. State University.

Class of 1961

Mabel S. Johansson (PHNU) past president of the School of Public Health Alumni Association and winner of the 1976 Distinguished Alumnus Award, was presented the Meritorious Service Award by the Florida Public Health Association. Mabel was cited for outstanding service in local public health care and for her example, her acceptance and her encouragement to public health workers.

Class of 1963

Edmund J. McTernan (HEED) dean School of Allied Health Professions, divided his six month sabbatical leave between spring 1976 and spring 1977. Last year he was visiting fellow at Western Australian Institute of Technology at Perth and this year he is writing and working for the Health Resources Administration.

Class of 1964

Robert E. Sanders (ESE) is training consultant Bureau of Training, Center for Disease Control, Atlanta, Ga.

Class of 1965

The Cabarrus County Public Health Center was dedicated in January. Named for Dr. J. Roy Hege, the Center provides new quarters for the 60 employees and eight clinic areas. Al Klimas (HEED) is health director. Richard F. Murphy (HADM) dental consultant for the Eastern Region in N. C. was chosen president, American Association of Public Health Dentists. Dick has been in dental public health fourteen years. Eleanor J. Welch (HADM) is assistant director of Related Health Services, Community Nursing Services of Philadelphia. Pa.

Class of 1966

J. Gerome Rinaldi (HADM) U.S. Navy physician is now living in Atlantic Beach, N.C.

Class of 1967

Doris T. Bowles (MCH) is a part-time public health nurse with the Durham County Health Department in Durham, N.C. Jose F. Maldonado-Moll (PALP) is a member of the faculty in the Department of Medical Zoology, School of Medicine, University of Puerto Rico. Col. Mary R. Pullig (PHNU) was transferred to San Antonio, Texas in February.

Class of 1968

Sandra J. Eyres (EPID) has left Bethesda, Maryland, to accept a position in Seattle, Washington. Myra Mott Lentz (PHNU) formerly County Nursing Director, Broward County Health Department in Fort Lauderdale, Fla., has been promoted to Health Program Supervisor, District 10, State Department of Health & Rehabilitative Services in Fort Lauderdale, under the State HRS Reorganization. Martin B. Marx (EPID) is an associate professor, in the Department of Community Medicine, University of Kentucky, College of Medicine at Lexington.

Class of 1969

Catherine S. Eastwood (PHNU) writes that she is working on her doctor of public administration at Nova University in Ocala, Florida. Martha Valiant (MCH) is director of the Belle Glade Health Center, a district office of the West Palm Beach County Health Department in Florida.

Class of 1970

John W. Brough (PALP) is director Hygiene Laboratory West Virginia State Health Department in Charleston. Richard D. Heaton (ESE) has accepted a position with the American Water Works Association Research Foundation, Denver, Colorado. Anthony R. Measham (HADM) is deputy director, Center for Population and Family Health, Columbia University, New York City.

Class of 1971

As nurse epidemiologist, Mary Castle (PHNU) is on the faculty of the University of Colorado Medical Center, Denver. Suresh K. Gajendragadkar (ESE) is assistant professor in public health in the V.J.T. Institute, Bombay, India. He is on the Vigilance Committees setting up air quality and stack heights in Maharashtra. Suresh also continues his research on environmental planning and is consultant to the municipal corporation of Bombay. Formerly on the staff of the Nader-

backed health research group, Andrea Hricko (HADM) is currently health coordinator of the University of California at Berkeley's Labor Occupational Health Program. A non-profit organization which conducts research and education on health and safety for labor groups, the Labor Occupational Health Program is a part of the Center for Labor Research and Education. Francine Katz Jupiter (HADM) is head of social services, Alexandria Health Department, Alexandria, Virginia. M. Sam Sudman (PALP) is director, Division of Laboratory Services, Tennessee Department of Public Health in Nashville.

Class of 1972

Daniel J. Gossert (MCH) has served as director, Handicapped Children's Program, Colorado Department of Health since graduation. Edward F. Meydrech (BIOS) has accepted a position on the faculty, Department of Preventive Medicine, University of Mississippi Medical Center. Lt. Col. Donald A. Sakson (HADM) has been transferred to Fort Lewis, Washington. Fred D. Wright (MENH) is area director, Johnston Mental Health Center, Smithfield, N.C.

Class of 1973

Maj. Mary Janice Beil (PHNU) has been transferred from Sheppard, AFB, Texas, to Medical Aid Station, APO, New York. Ronald McLean (HEED) is now employed in the Department of Human Resources, Raleigh, N.C. Hal T. Wilson (HADM) resigned his position at Bowman Gray School of Medicine to become program and medical director, Physician Associate Program, University of Kentucky at Lexington.

Class of 1974

Ronald P. Burakoff (HADM) is now regional consultant for dental professionals, Public Health Service, New York, N.Y. Marguerite Cramer (NUTR) is director, WIC Supplemental Food Program, Forsyth County, Winston-Salem, N.C. Paul DesRoche (BIOS) writes that his master's paper is being published in the "Journal of Aging and Human Development." Paul is working part-time on his doctoral degree in statistics at New York University. Margaret Griffin (HEED) has accepted a position as a health planning consultant Forsyth County, N.C. Health Department. Margaret will direct a community health education proposal designed to reduce health problems by influencing personal health habits. Patricia Bunch Mark (PALP) is now employed with the regional blood bank in St. Augustine, Florida. As assistant director of nursing, Carolyn P. Rathgeb (PHNU) is

working in the Fairfax County Health Department, Fairfax, Virginia.

Class of 1975

Mary H. Askew (PHNU) is public health nurse Broward County Health Department in Florida. Mildred Bartko (PHNU) is health care consultant in Newington, Connecticut. Laura Carrillo (PHNU) is employed by Project Hope. William Edgar Cockrell, III (HADM) is administrative officer with the Veteran's Administration Hospital in Durham, N.C. Brenda K. Edwards (BIOS) is assistant professor, University of Cincinnati Medical School, Cincinnati, Ohio. Bill Hill, (HADM) director of Bertie County Health Department, has accepted a position with the Health Service Agency, Waynesville, N.C. J. L. Holliday (EPID) is director of preventive health and epidemiology, Greenville County Health Department, Greenville, S.C. Mary Hollingshead (PHNU) is assistant professor, Bradley University, Peoria, III. As community psychiatrist with the South Carolina Department of Mental Health, Thomas W. Messervy (HADM) is located at the William S. Hall Institute in Columbia. Kathy Parker (HEED) Chapel Hill, N.C. has been appointed to the Orange County Board of Health. Betty Jane Phillips (PALP) is director, Clinical Laboratories, Mississippi State Board of Health.

Class of 1976

Kenneth T. Alston (HEED) is director of public education for the Health Planning Council, Inc., West Palm Beach, Florida. In this position he oversees publication of the monthly newsletter, "Community Health Notes." John L. Cromer (ESE) is a research technician, UNC-CH. Announcement is made of the marriage of Donna Hardison (HEED) to Randy Craig Thompson. Donna and Randy are living in the Winston-Salem area. Ralph McDermott (HADM) has been appointed associate director of the Tennessee Office of Health Planning. In this position, he is responsible for developing the State Health Plan. Carol Rest Mincberg (HADM) is now living in Cambridge, Mass. Peter C. Reichle (MENH) is assistant professor, Department of Health, Physical Education and Recreation, Appalachian State University, Boone, N.C. Beverly Thorne (PHNU) is director of clinics, Kanawha Charleston Health Department in Charleston, West Virginia.

Class of 1977

The new executive director of the Home Health Agency of Chapel Hill is **Martha Jane Stucker** (HADM). Martha was supervisor of a home health agency in New York and a public health nurse with United Health Services of Kentucky. In the latter position, she helped local citizens' groups organize three primary care clinics.

It is with sadness and sincere appreciation for their contributions to public health that we announce the death of the following alumni:

Grace Daniel (HEED) December, 1976, after a series of heart attacks. Grace was living in Salisbury, N.C.

Benjamin Drake (HADM) January, 1977. Ben was health director, Gaston County Health Department at the time of his death.

Thelma Morris (HEED) December, 1976. Thelma had just returned to her home in eastern North Carolina from a consulting job in the Caribbean.

Evelyn Rahm (HEED) December, 1976. At the time of her death Evelyn was living in Boston, Mass.



Gourley

RETIREMENTS

Geraldine Gourley, (MCH) retired on December 31 after seventeen years at the School. Gerry came to U.N.C. from the Denver School of Social Work. During her tenure in addition to teaching, she developed many conferences for social workers concerned with health care and promoted availability of family planning services for all members of the community.

For ten years David H. Howells (ESE) was director of the UNC Waste Resources Research Institute. On October 1, 1976 he retired as director. Mr. Howells came to U.N.C. from the U.S. Public Health Service where he was a sanitary engineer director. On December 7, 1976 he was cited at the 44th honor awards convocation, U. S. Department of Interior, for his role in the conservation of water resources, water supply, pollution control and environmental sciences.

OPINION POLL SHOWS CHANGES NEEDED IN DEPARTMENT OF HUMAN RESOURCES

North Carolina leaders and policy makers should support changes in the N.C. Department of Human Resources according to results of an opinion poll conducted by Dr. Sagar Jain, Department of Health Administration.

A majority of the 449 respondents, Dr. Jain says, registered strong feelings against regionalization of administration and delivery of human services in the Department.

Several of the respondents indicated: regionalization is worthless and should be abandoned; that it is just another level of bureaucracy; and that regional offices have-little power to make changes without prior approval from the Raleigh office. Others believe that if regionalization is to continue, steps should be taken to make it more effective. More than one third of the leaders support local management of human services.

Of the 925 persons contacted to participate in the poll approximately 449 responded to the 17-page questionnaire. Those participating included state officials, regional office administrators, local health directors, county commissioners, superintendents of state institutions, chairmen of local boards concerned with human services and professional association chairmen.

Respondents indicated that they feel less than 61 per cent of Carolina citizens are receiving any type of needed human services, and the quality of these services is only average. Findings also show that state leaders give the development of physical health services higher priority than the development of mental or social health services even though they believe more people lack access to the latter two. The poll also shows that state leaders believe 61 per cent of those needing physical health services receive services while only 52 per cent of those needing mental health services and only 58 per cent of those needing social health services receive those

services. A similar finding appears when human service needs are classified according to age groups.

Services to children were given priority over services to the aged and to adults, even though respondents estimated only 54 per cent of the elderly needing services in North Carolina can obtain them. Of all adults in the state needing some type of human services, respondents felt 59 per cent were receiving that service. They believed 57 per cent of children needing some service were being reached.

State leaders believe preventative services, rather than treatment, care or rehabilitation services, need to be increased. Although respondents complained about the inadequacy and quality of services, they were not prepared to expand these services rapidly. Respondents indicated that by the year 2000, the state would still only be meeting the needs of 78 per cent of the people.

The study revealed considerable misinformation about how services are financed. The leaders surveyed thought the federal government should foot 27 per cent of the bill, when in fact it is now actually covering 58 per cent of human services' expenses in North Carolina. Although the state allocates only 20 per cent of its budget to this area, leaders thought it was 30 per cent. Often the allocation of funds is so complicated that even the administrators may not know the source of the money.

The poll's purpose, Dr. Jain says, is to provide data to state policy makers on what state leaders on different levels think about North Carolina's human service needs.

"Need is largely a matter of personal opinion; it is difficult to define in objective terms," Jain explains. "For this reason my methodology was designed to systematically gather data on societal leaders' opinions. The findings reported are only these leaders' opinions, and not necessarily based on facts."

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