

A magazine for the friends of the University of South Carolina College of Health

HEALTHBEAT

Fall 1989



HealthBeat

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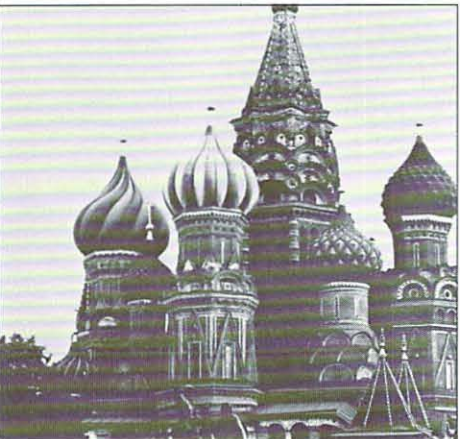
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On the Cover:

Nettie Humphrey, 82, from Finlay House gets a follow-up hearing screening at the Speech and Hearing Clinic by Patricia Balfour-Smith, Ph.D. candidate in the Department of Communicative Disorders. As a part of Better Speech and Hearing Month initial speech and hearing screenings were offered at Finlay House as well as various schools, hospitals, and child care centers in the Columbia area.



Dean Winona Vernberg

From the Dean

By whose yardstick do you measure yourself? We've spent months measuring the College against the standards of the Council on Education for Public Health – a required step toward reaccreditation. It's not an exercise for the idly curious; our findings filled two volumes.

The findings, however, were exciting. They reminded me that, on a day-to-day basis, it's hard to see the forest for the trees. Every five years or so, it's good to step back and survey the forest.

Here are the highlights of our Self-Study Report, dated August 29, 1989. Statistics are referenced to the previous self-study conducted five years ago.

- Student applications are up 28%. Sixty-eight percent of applicants are accepted. Of those, 77% subsequently enroll. Total enrollment is up 13%.
- Grade point ratios of newly admitted students have increased: 70% have GPRs of 3.0 or higher, compared with 56% five years ago.
- The number of full-time faculty members has grown from 28 to 41.
- The student-to-faculty ratio has improved from 6.7/1 to 5.1/1.
- Grant income for research increased five-fold between 1983-84 and 1987-88, from \$733,880 to \$3,657,561.
- Total space assigned to the College of Health on the Columbia campus has more than tripled. Laboratory square footage is two-and-a-half times greater.
- Computer resources – both mainframe and micro – are greatly enhanced. The USC system is one of the few in the southeast with "super computer capability."
- Continuing Education events have grown markedly, from 16 events and 682 participants in 1983-84 to 42 events and 3,905 participants in 1987-88.

Over and over, the Self-Study criteria made us examine and answer the question: Is the College meeting its mission and goals? Specifically, is it meeting them in the areas of education, research and service?

Our mission, bottom-line, is to serve the State of South Carolina. As we went through the painstaking process of answering each of CEPH's questions, one self-examination tool gave me particular pleasure. In the spring of 1989, the School of Public Health sponsored luncheon meetings with 19 major employers of the School's graduates. Our goal was to determine how well prepared our graduates had been to enter the workplace. The consensus of the employers was that the graduates had been extremely well prepared.

That was good to hear. As an alumna or alumnus, you should take pride in that news, too.

Occasional Physical Activity Better Than None at All

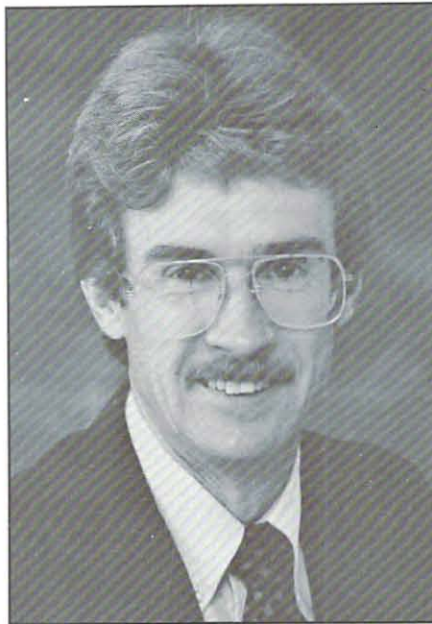
Good news for the sedentary: if you've been tempted by an occasional fling with exercise, but were wary of a whole-hearted commitment — take the fling. Even occasional physical activity is better than none at all.

"Our profession," says exercise scientist Russell Pate, Ph.D., "has created the mistaken impression that if you can't meet the minimum standards — say, 30 minutes of brisk exercise three times a week — then why bother to fool with it." Pate, chairman of USC's newly formed Department of Exercise Science, says that emerging data indicates there are real benefits to even moderate activity.

"In working with healthy people, a key is to take the sedentary person and get him to become at least moderately active. He may not go in for workouts every Monday, Wednesday and Friday but he might take a comfortable walk after dinner a couple of times a week. And that's much better than total inactivity."

Pate was selected by the American College of Sports Medicine — the major scientific society in the field of exercise — to chair the editorial board which is updating the manual *Guidelines for Exercise Testing and Prescription*. The manual becomes the standard of accepted practice in exercise testing and prescription in clinical and programmatic settings.

This fourth edition of the manual is scheduled to be released in late 1990 or early 1991. It will contain: significant revisions to the criteria for professional certification at six levels of practice (Pate's committee spent a year reviewing and revising the behavioral objectives for certification in both the rehabilitative and the preventive tracks); new sections dealing with exercise needs of people with diabetes, kidney disease and pulmonary disease; new



Russell Pate

guidelines on the amount of exercise needed by healthy people to remain healthy and fit.

"We've traditionally prescribed exercise," Pate says, "based on scientific studies that have looked at improving physical fitness. But many of us are interested also in reducing the risk for developing heart disease and other problems." One of the committee's goals is to eliminate the rigidity of exercise guidelines for healthy people.

Pate is managing a \$15,000 grant from the College of Sports Medicine to support the work of the eight-member committee, one of whom is USC associate professor Dr. Larry Durstine. Other members are from "all ends of the country, as well as Canada." The committee has been meeting three times a year for two years. Since some of their work has the effect of setting policy, they interact with a number of other committees of the ACSM.

Pate holds a Ph.D. in Exercise Physiology from the University of Oregon. He has been a member of the USC faculty for 15 years.

Research May Lead to Legislation

Dee Vernberg never said that waterbikes aren't fun. She simply said that, in young or inexperienced hands, and in crowded swimming areas, they're dangerous.

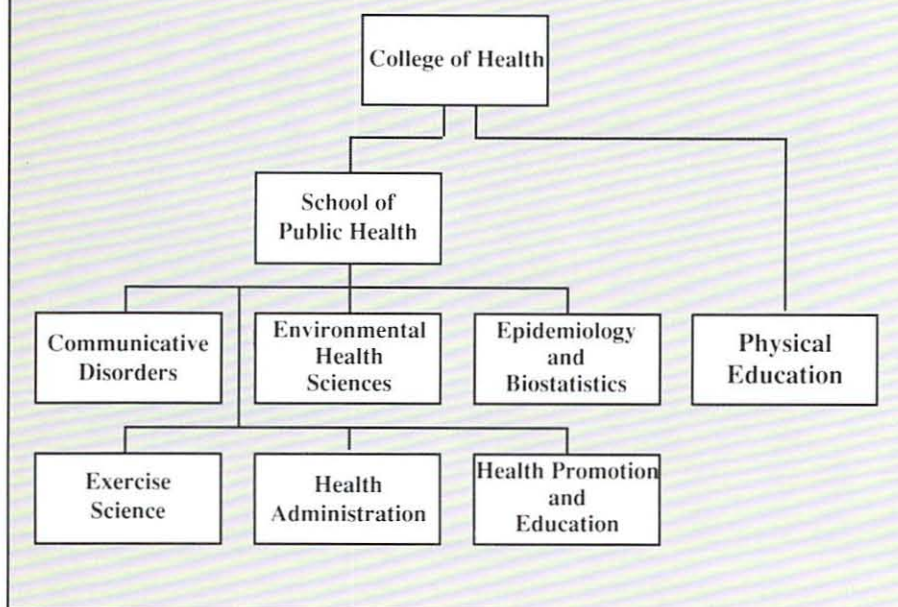
Her study, based on three years' statistics from the Dade County Trauma Registry, has created a wave of media interest, and added thrust to a bill introduced in the Florida State Legislature.

Vernberg's study began two years ago, shortly after she and her husband, Eric, moved from Charlottesville, Va., to Miami. The beaches and waterways were crowded with boats, swimmers, skiers and the fast, maneuverable inboard waterbikes (often called jet skis) widely available for rental or sale.

How safe were they? Vernberg was working in the right place to ask. As a consultant to the Dade County Trauma Registry, she had become interested in its data base, which records only those injuries severe enough to require treatment at a trauma center. A search of the professional medical literature turned up nothing on water-bike-related injuries per se. Nor did contacts with the US Consumer Product Safety Commission or the Coast Guard. Vernberg began her own study without funding or sponsorship, but with the cooperation of Ellen G. Fine, Ph.D., director of the Trauma Registry. Along with Janine Jagger, Ph.D., of the University of Virginia, the three co-authored a letter to the *Journal of the American Medical Association*, describing the study's findings. JAMA published the letter in its April 7, 1989, issue. It touched off a number of media reports, including an article in the June issue of *The Physician and Sports Medicine*. Vernberg had found 13 cases of serious injury — two of them fatal — caused by water bike accidents in Dade County between September 1985 and

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New Structure of the College of Health



Research (from p. 4)

August 1988. Six of the 13 victims were riding waterbikes when the accidents occurred. Six others were swimmers or water skiers struck by waterbikes. The circumstances of one person's injuries were unknown.

The six riders ranged in age from seven to 27; four were under age 15. Two of the riders, aged 13 and 19, died from brain injuries. The other seven ranged in age from 11 to 50. The study showed a marked increase in the incidence rate over the three-year period, with two injuries reported in the first 12 months, three in the second 12 months, and eight in the final 12 months. Not included in the report were the four people injured or killed in waterbike accidents in Dade County between the submission and the publication dates of the article. Nor did it include any of the lesser injuries treated in facilities other than trauma centers.

Vernberg has recommended that safety regulations be enacted. These should include restricting the use of personal watercraft in congested swimming areas, requiring operators to wear life vests and to be at least 16 years old, and recommending that purchasers and renters be trained before they operate the craft. The letter to JAMA noted that "separating swimmers from these vessels is likely to be a more effective prevention strategy than advising operators to be more careful."

In most states, waterbikes are considered motorboats and thus are subject to the same regulations. However, some states, including Florida and South Carolina, have no age restriction for motorboat use.

At the time that her study was published, Vernberg said, the Florida State Legislature was considering legislation that would regulate waterbike use. Her findings were included in their considerations.

In South Carolina, a four-year-old girl died of a broken neck after the jet ski she was riding rammed a bank on Oconee County's Lake Koewee in early August of this year. In May 1988, a 13-year-old girl playing with an inner tube

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New Avenues of Collaboration Opened by Restructuring the College of Health

The School of Public Health has grown from four departments to six in a reorganization of its "umbrella," the College of Health.

Communicative Disorders, previously a free-standing department of the College, is now part of the School of Public Health. The department is under the leadership of Hiram McDade, Ph.D. The newly created department of Exercise Science, chaired by Russell Pate, Ph.D., was formed out of the existing Department of Physical Education and is a component of the School of Public Health.

All other Physical Education faculty — whose focus is the preparation of physical education teachers — remain a free-standing department under the umbrella of the College.

Dean Vernberg noted that the restructuring "makes us unique among the nation's Schools of Public Health. No other school has the same opportunities for interaction and collaboration that we have.

"In the field of communicative disorders, consider the fact that hearing loss is such a major issue among the elderly. Anything that affects the elderly is a Public Health concern. Consider also the health effects of exercise for the entire population.

"Even before the restructuring, there was a significant amount of interdisciplinary study taking place between the faculties of the School and these two departments which have joined it. Coming together makes them eligible for new sources of research funding. I foresee many productive avenues of collaboration for the future."

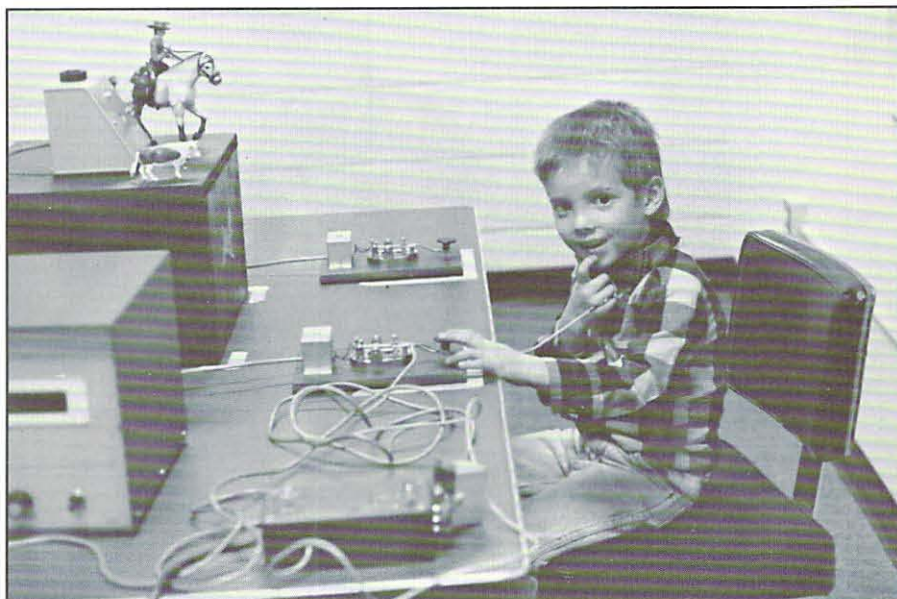
The four departments which were already part of the School are: Environmental Health Sciences, Epidemiology and Biostatistics, Health Administration, and Health Promotion and Education. The College of Health as a whole has the fifth largest graduate program at USC, and ranks third in funded grants among the University's 15 professional schools and colleges on the Columbia campus.

Bishop and Williams Do Ground-Breaking Research

Judith H. Bishop never tried to put a dollar value on her Ph.D., but she knows now that her dissertation is worth at least \$100,902. A newly awarded grant in that amount will finance the extension of her dissertation into the study "Contrast of Vocal and Manual Reaction Time of Stuttering Children, Children With Articulation Disorders, and Children Without Speech and Language Disorders Ages 3-11." The Academic Research Enhancement Award (AREA), which covers a two-year period, came from the National Institute of Neurological and Communicative Disorders and Stroke. It also came as a surprise. "It was the first grant submission I'd ever made," says Bishop. Not so for co-investigator Harriet G. Williams, Ph.D., an expert in the field of motor development. Veteran of numerous grant awards during her distinguished career, Williams was named USC's Outstanding Woman Researcher in 1986.

Bishop and Williams are conducting ground-breaking research into the relationship between speech and neuromuscular development. Specifically, they will be comparing vocal reaction times and manual reaction times in three groups of matched subjects: children who stutter, children with articulation problems (e.g. pronouncing "rabbit" as "wabbit"), and children with normal speech and language.

A total of 72 children, evenly distributed between ages 3 and 11, will be evaluated on six tasks of varying complexity. The children attend day care centers, elementary schools, and middle schools in seven South Carolina school districts. The purpose of the study is two-fold: (1) to investigate the nature of vocal and manual control in the three groups of children and (2) to investigate the effects of age and task complexity on vocal and manual control in the three groups. The original research for Bishop's dissertation involved 40 children – 20 stutterers and 20 non-stutterers. Her findings showed that the reaction times (RTs) of the



Clayton Proctor being tested at the USC Speech and Hearing Center. His bow tie contains a small microphone which records his vocal responses as he reacts to a cue from a green light on the box in front of him.

stutterers were slower than those of the non-stutterers on both vocal and manual tasks. The more complex the task, the greater the RTs of both groups, but markedly so for the stutterers. She also found that young stutterers' RTs were particularly slow on complex vocal tasks. Bishop concluded that the most important contribution of the study may be the documentation of the effects of task complexity (both vocal and manual) at a very early age. "Such information," she wrote, "encourages the present trend to intervene early in the stuttering process. It implies that early reactions or constitutional predispositions may put the young stutterer at a real disadvantage." Williams and Bishop also found that stutterers executed simple eye-hand coordination tasks more slowly than non-stutterers. Williams points out that this may mean stutterers have difficulty in planning and carrying out manual as well as vocal tasks.

The grant will allow Bishop and Williams to expand the original study to gather data on a carefully matched group of children with articulation disorders, to determine if the results of the previous study represent effects that are specific to stuttering. Bishop

and Williams noted in their grant application that the project seemed especially appropriate for an AREA grant since "it will lay the groundwork for continued collaboration between the departments of Communicative Disorders and Exercise Science," both departments within the School of Public Health at USC.

"Since both departments have clinics available – The Speech and Hearing Clinic and the Perceptual-Motor Development Program – a natural outgrowth of collaboration would be a combined clinical services program for children with motor-based speech disorders." A future goal, they noted, would be an experimental program relating gains in speech development to gains in overall motor control.

Bishop received her Ph.D. in speech pathology from the University in 1987. She is now director of the USC Speech and Hearing Center, with an appointment as a research assistant professor in the Department of Communicative Disorders. Williams is a professor in the Department of Exercise Science and is director of the Motor Development/Motor Control Laboratory.



Bishop's Bow tie: The Latest in Tasteful Research Tools

Judith Bishop's bow tie has a lot to do with research, but nothing at all do with fashion. The blue cravat with the "tasteful" white polka-dots is actually an innovative solution to a problem which had vexed Bishop and Harriet Williams. As part of their research project, "Contrast of Vocal and Manual Reaction Time of Stuttering Children, Children With Articulation Disorders, and Children Without Speech and Language Disorders Ages 3-11," Bishop, and Williams are individually testing and then comparing the vocal reaction times of matched trios of children.

During one part of the test the kids are seated in front of a display board and instructed say words like "a," then "a cow," and finally, "a cowboy" as soon as they see a green light blink on.

In order to accurately measure the child's response times, Bishop explains, a small microphone must be in immediate contact with the child's throat. A more traditional way of maintaining throat-microphone contact is to use toupee tape to secure the device to the child's neck. Since garnering a child's cooperation for a long testing session is difficult enough, Bishop decided to devise a less distracting method for attaching the microphone.

"I thought that the use of toupee tape was too threatening," she says. "So I came up with the idea of camouflaging the microphone in a bowtie."

The center "knot" of the tie contains a small mike, which is constructed to eliminate unwanted throat noises and only pick up responses. Bishop contends that while the tie isn't the height of fashion, it does get the job done.

Nurse Assistant Testing May Be a "Bitter Pill" for Nursing Homes

Nursing homes across the country are bracing themselves for the likelihood that a sizeable number of their nurse assistants will lose their jobs by failing to meet new minimum federal standards.

Hoping to minimize the impact of the so-called Catastrophic Health Care Legislation on the state's nursing homes, South Carolina has launched an intensive, short-term study involving four faculty members at USC.

Carleen Stoskopf, Sc.D., assistant professor of Health Administration in the School of Public Health, is the principal investigator for the project, which has received \$83,000 in funding from the State Health and Human Services Finance Commission. Co-investigators are Deborah Glik, Sc.D., of the Department of Health Promotion and Education; Sam Baker, Ph.D., a health economist in the Department of Health Administration, and Kay Cover, M.S.N., an instructor in the School of Nursing.

To continue to be eligible for federal funds, states are required to test nurse assistants who are currently employed, develop an approved training program for nurse assistants to be hired in the future, establish and maintain a registry of certified nurse assistants and evaluate training programs on a continuing basis.

Nursing homes were required to see that all currently employed nurse assistants – an estimated 5,000 in South Carolina – take and pass a designated exam between July 1, 1989, and January 1, 1990, if the facilities are to continue to receive Medicare and Medicaid reimbursement. Those who fail the test have the option of taking without charge an 80-hour training course at vocational and technical schools across the state. They must complete the course and pass the exam, however, by January 1. Nurse assistants who cannot pass the exam will lose their jobs.

"It's common knowledge," says Stoskopf, "that recruiting and

retaining qualified nurse assistants for nursing homes is already difficult and can be expected to get worse as the labor force becomes better educated, job expectations increase, and employees are lured away by competing institutions such as hospitals or other professions.

"Nurse assistants are typically in low-paying, low status, difficult jobs. Most employed in South Carolina nursing homes are poorly educated. A disproportionate number are minorities. They're making minimum wage to about \$5.00 an hour for work that is certainly not glamorous.

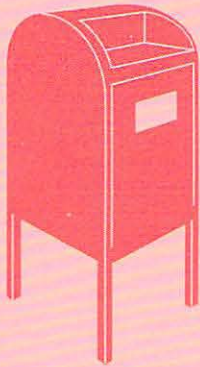
"Obviously, we're concerned about the personnel crisis that could be facing the nursing home industry. We're also concerned that a lot of people are going to fail this exam who are actually qualified to do the work. Many have never had any formal training, but have learned on the job.

"While we applaud the fact that remedial courses will be available, it's

"recruiting and retaining qualified nurse assistants for nursing homes is already difficult and can be expected to get worse"

unlikely that all who fail the exam the first time will have the motivation or confidence necessary to take this course and retake the exam, or even that those who take the course will be able to pass it." The study underway by the USC group is designed to evaluate the testing process, the remediation process, and the follow-up testing procedure. It has the following objectives: (1) to determine if the exam truly assesses the practical skills expected of nurse assistants for them to provide quality patient care. "It is a real problem in a population which may border on functional illiteracy," notes Stoskopf,

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Keep us Informed

Alumni, please send us information about your job changes, research activities, honors received, and personal and professional activities. Send a recent photo whenever possible. Send your news to:

Lucy Hollingsworth
College of Health, HealthBeat
University of South Carolina
Columbia, S.C. 29208

Alumni Information Update

(Please complete and return.)

The School of Public Health is interested in knowing your news.

Please take a moment to answer and comment on the following questions so we can improve our alumni network.

Did this magazine arrive with your correct name and address? If not, please help us.

Name: _____

Address: _____

Year of Graduation: _____ Program and Major: _____

Have you changed employment since we last heard from you? _____

Are you involved in any other professional activities such as consulting? _____

Have any significant personal events occurred in your life? _____

Have you earned an advanced degree since leaving USC? Yes No

If yes, please check: M.S. M.A. Ph.D. M.D. D.D.S.

D.O. Other: _____

SPHA News

The Executive Committee of the Student Public Health Association has taken on many challenges and looks forward to the challenges ahead as the School of Public Health prepares for its reaccreditation site visit in early 1990. The Committee has undertaken to work with the students, staff, and administration in any capacity to benefit the School's reaccreditation process. The Student Public Health Association and its Executive Committee must play an active part in the reaccreditation process if it is to be successful. A special recognition must be given to the Executive Committee for their efforts to make the Student Public Health Association a visible and active force within the School of Public Health.

The SPHA began the year by completing the survey it conducted on the students within the School of Public Health. The results of this survey were useful in the self-study of the School, and are being used in the final reaccreditation document submitted to the Association of Schools of Public Health. In addition, SPHA saw one of the largest turnouts for the new student orientation, as well as the picnic at Dean Vernberg's home. The picnic provided an excellent forum for interaction between the new students, returning students and the faculty. This orientation had to be one of the most successful.

The Student Public Health Association has also been actively involved in humanitarian efforts. SPHA has under-

taken a continuous food-drive to feed the hungry in conjunction with the Harvest Food Bank. Much of the food recently collected went to the victims of Hurricane Hugo. Members of the Student Public Health Association have also been involved in various other relief efforts for the victims of Hugo. For Christmas, the Student Public Health Association plans to adopt a family that was affected by the hurricane and provide gifts for the children who might otherwise not receive any this year.

I would like to extend a welcome to all the students in Communicative Disorders and Exercise Science who are now a part of the School of Public Health. I invite everyone to participate in the Student Public Health Association. We need all the help we can get in the reaccreditation process. Come join us and help shape the future of the School of Public Health.

John Rodermund
President, SPHA

(Below) Eight students from the School of Public Health drove to Chicago in October for the annual meeting of the American Public Health Association. They assembled and staffed the School of Public Health Display during the meetings. The students are (from left to right) Eric Aft, Terri Timbes, Greta Eargle, Robert McKeown, Susan Stevens, Susan Fulmer, Wajahat Mirza, and Leroy Frazier.



Goodman Joins SPH

"It was a tough place...very competitive. There were street gangs. If you played the violin, you certainly learned to play basketball." – Robert Goodman, Ph.D., on growing up on the "mean streets" of New York City.

Bob Goodman, basketball fanatic, would like to make time in his life again for the violin. And backpacking and scuba diving. And Oriental history.

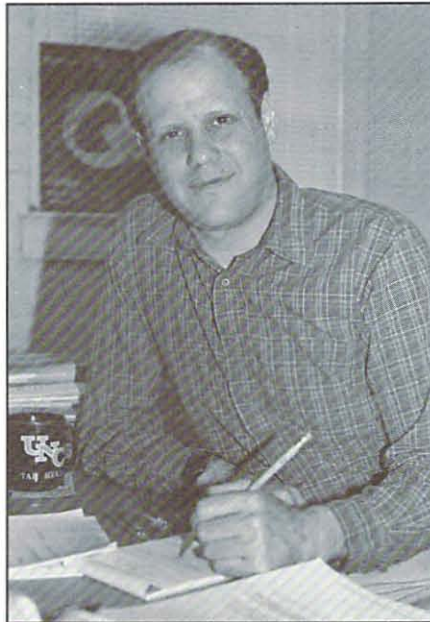
But work is absorbing, split as it is between the classroom and the community. Goodman is a newly named assistant professor in the Department of Health Promotion and Education. At 40, Goodman is seeing three important strands of his career woven into a single cord.

One is his interest in public health. He served for two years as acting deputy director of a large county health department in western Michigan. His doctoral degree, awarded in 1987 by UNC-Chapel Hill, is in Public Health. He also holds an M.P.H. in Community Health Education from the University of Hawaii at Honolulu and an M.A. in oriental history. Prior to joining the USC faculty he was a research assistant professor at UNC-Chapel Hill for two years.

Second is teaching. Goodman has taught on every level – elementary, junior high, high school, undergraduate and graduate.

Third is a desire to "leave a little more than you take" in the world. He has worked with minority populations, and the chronically unemployed, helping them gain access to job skills and job markets. He is concerned about the homeless ("Their advocacy is not being done in an organized way"), those with AIDS, and communities with drug problems.

Goodman is a community health developer, working both with individuals and agencies, often helping them form community coalitions to address their own problems. Self-described as "something of a product of the sixties," he would have been known in those days as an activist. He holds



Bob Goodman

membership in The Sierra Club; Amnesty International; and SANE, an anti-nuclear group; in addition to the customary public health organizations and Delta Omega Honor Society.

At USC, Goodman is teaching classes in Community Health Development, Organizational Development, and Program Evaluation.

Recently, he received a contract from the Children's Defense Fund to help evaluate a prenatal care program in Marlboro County. "We'll be looking for specific outcomes. Are there more prenatal visits in the first trimester of pregnancy? Are there healthier births?"

Because Goodman believes that "a good evaluator takes an active role" in the course of a project, Goodman sees himself eventually becoming involved in programs aimed at reducing teenage pregnancies, and reducing second and third pregnancies in this same age group.

"My goal is to help communities gain control of their own problems. I believe you take your lead from the community itself."

In his free time, Goodman says he loves to travel. He enjoys other countries and their cultures, and speaks passable Chinese. He enjoys the arts, particularly film and music, and has been known to play fiddle for a bluegrass band.

Nursing Home (from p. 7)

"to say whether their performance on a standardized exam truly measures their competency or their test-taking skills;" (2) to identify the factors which put a nurse assistant "at risk" of failing the certifying exam or the follow-up exams. Some of these factors may be individual (lack of educational background) and some may be institutional (lack of in-house training programs at the nursing home where the person is employed); (3) to ascertain which individuals continue to fail the exam after completing the vocational training course and to project how those failure rates will affect overall remediation and training strategies for South Carolina and its nursing homes. Stoskopf notes that those nursing homes which train and motivate their workers adequately are less likely to lose them through failure of exams or through attrition. Those that do a better job with their nurse assistants could be used as models for other nursing homes in the state.

The USC study will use five sources of data in their evaluation: information gathered during site visits to a sample of 44 nursing homes where on-the-job observations were made of approximately 800 nurse assistants; existing information on nursing home performance collected by the Department of Health and Environmental Control; the actual test results of the 5,000 nurse assistants taking the exam; a set of social and demographic information from each person taking the exam; and the results of the follow-up exams administered after the 80-hour training course.

Observers who made the on-site visits used a checklist of skills deemed basic by a specialist in nurse assistants' education to rate the performance of the 800 employees included in the sample.

The final report from the study, including policy implications and recommendations, will be made by March 31, 1990.



Barbara Hulka

Prominent Epidemiologist Barbara Hulka at SPH

Barbara Hulka, M.D., M.P.H., a prominent epidemiologist best known for her contributions to cancer research, visited the School of Public Health during the spring semester. Her lecture entitled "Use of Post-Menopausal Estrogen: Risk and Benefits" was sponsored by the School as part of Women's History Month at USC. Her lecture was one of 40 campus-wide events scheduled in conjunction with the event.

Hulka is chair of the Department of Epidemiology in the School of Public Health at the University of North Carolina, Chapel Hill, and is an authority on the use of epidemiologic methodologies in cancer studies. She is currently the chair of the Postmenopausal Estrogen/Progestin Intervention Trial Protocol Review Committee for the National Heart, Lung and Blood Institute. She also serves on the Food and Drug Administration's Fertility and Maternal Health Drugs Advisory Committee.

Widely published in professional journals, Hulka has contributed chapters to 13 books, held 23 medical research consultancies, served on seven

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Researchers Found Public Outpatient Drug and Alcohol Abuse Programs a Glowing Success

A USC study of six county alcohol and drug abuse programs found "substantial and often stunning improvement" among patients treated there.

Success rates at these public outpatient programs often exceed or were comparable to those of private treatment facilities, said principal investigator Andrew J. Gordon, Ph.D., M.P.H. Co-investigator was Deborah Glik, Dr. Sc. Both researchers are members of the faculty of the Department of Health Promotion and Education in the School of Public Health. Department Chairman John Ureda, Dr. P.H., served as consultant to the project. The study was conducted over a year-long period at six centers selected as representative of the 41 programs operated by the South Carolina Commission on Alcohol and Drug Abuse (SCADA). Two were large centers: those in Lexington-Richland and Charleston counties. The other four were mid-sized programs in Greenville, Florence, Aiken and the tri-county area centered in Orangeburg.

"extensive expenditures of time on some patients may not be cost effective."

During the period studied, the researchers reported that 25.1% of drinkers achieved abstinence, and 83.3% of all alcohol users reduced their drinking by at least one-half. A substantial 42.6% of cocaine users and 59.5% of opiate users stopped using the drugs. Outcomes, the researchers found, depended far more on individual client's motivation than on either duration or intensity of treatment.

The researchers noted: in many instances a lack of relationship between length of time spent in treatment and the outcome of treatment, suggesting that "extensive expenditures of time on some patients may not be cost effective." As

is often seen in public programs an across-the-board dropout rate at one week of about 25% for all users of alcohol and drugs was noted. The one-week dropout rate was particularly high – about 40% – among those who were referred to treatment by their families, suggesting a need for family therapy intervention at the onset. On the other hand, people with more "social capital" – higher education, better income, professional position – stayed longer in treatment and were less likely to drop out within a week.

"We did not, however, find enormous differences in final outcome based on socio-economic status. The key was attitude, the desire to resolve your own problems," Gordon says. The study was commissioned by SCADA, which awarded a \$63,000 grant to conduct it.

The 239 patients studied were interviewed twice – once prior to the beginning of treatment and again four months later. Evaluations were based on (1) rate of usage of alcohol or drugs and (2) quality of life. The study was designed to evaluate how outcomes were related to the intensity and duration of treatment, as well as to pre-existing factors, including method of referral into treatment.

Five principal pathways into treatment were identified, Gordon said. Self-referrals constituted the largest group, at 32.7%. Others sought treatment following an arrest, referral of a doctor or other professional, or referral by family member. Referrals from employers or friends made up the smallest group. Reducing or stopping alcohol/drug consumption tended to improve the quality of life for patients who were not heavy users. This in some instances did not hold true for "problem users," who often reported poorer quality of life, particularly depression and anxiety. Overall these findings should assist SCACDA in providing post-treatment counseling, Gordon said.

The USC Speech and Hearing Center Observed Better Hearing Month by Offering Free Screenings

The newspaper and radio ads for the week of free speech and hearing screenings brought in about 50 typical responses and one surprise.

"Typical" for the USC Speech and Hearing Center translates into "young children and elderly adults." The center staff was well pleased with the number of walk-ins who requested the free screening during the week of May 8-12.

But one who took advantage of the offer was the source of some amazement for the staff. She was an attractive, well-dressed woman in her early twenties. She held a responsible job. And though her speech was obviously distorted ("it was speech we associate with definite hearing loss," says speech and language pathologist Carol Coston), the woman was "almost positive she had never had an evaluation."

"She had come in," Coston says, "because she was interested in improving her speech. Here was a very responsible young woman who had taken her hearing loss and made the best of it. Now she was trying her best to take advantage of what's available in the community."

The staff made a referral to South Carolina Vocational Rehabilitation – the beginning of what all hoped will yield marked improvement in the young woman's speech.

The week of free screenings was offered as part of Better Speech and Hearing Month. Judy Bishop, center



Free speech and hearing screenings were offered by Speech and Hearing Center students and staff. As a part of Better Speech and Hearing Month screenings were held at various locations around the city of Columbia.

director, said the staff conducted both pure-tone screenings and speech and language screenings, a package of tests which would normally cost around \$20 per person.

Students training in the center also conducted screenings under faculty supervision at ETV's child care center, the USC Child Development Center, Timmerman School, Finley House (a home for retirees), Head Start, the Providence Hospital Health Fair, Baptist Hospital and the Scottish Rite Center.

Give the Gift of Education

Please support the USC Educational Foundation for the College of Health. The Educational Foundation gifts enable the College to attract top-caliber undergraduate and graduate students by supporting the general Scholarship Committee, graduate fellowships, the Dependent Scholarship Program, National Merit Awards, and National Achievement Awards. The Foundation also provides support for Undergraduate Teaching Awards, Faculty Research Awards, and the Staff Development Fund. Your support can make a difference.

Make your gift to the USC Educational Foundation for the College of Health and mail to Ms. Angela Everett, College of Health Educational Foundation, USC, Columbia S.C. 29208.

So You Want to Lower Your Blood Cholesterol

By Roger Sargent

Roger Sargent is a professor in the School of Public Health's Department of Health Promotion and Education specializing in Public Health Nutrition. He has a Ph.D. in biology and has for the past several years specialized in the relationship of nutrition and human health.

Over the past two decades there has been an increasing interest among adult populations to maintain or to even lower their blood cholesterol levels.

The National Cholesterol Education program suggested lowering total blood cholesterol to <200mg/dl and the LDL cholesterol fraction to <130mg/

dl. Values even lower than these may be desirable to reduce rates of atherosclerosis (degenerative accumulation of lipid-containing materials especially in arterial walls).

Several factors influence blood cholesterol levels. Some of the major blood cholesterol affecting issues are discussed below.

Diet

The behavioral factor that can most affect blood cholesterol levels is diet. The present American diet which is high in fat calories (about 37%), high in saturated fat calories (about 14%),

and high in cholesterol (about 450mg/day) is associated with our high incidence of cardiovascular disease.

Virtually all recommending organizations suggest a reduction of fat calories to under 30% of our daily calorie intake, with less than 10% from saturated fat. Foods relatively higher in monounsaturated and polyunsaturated fats should be substituted for those rich in saturated fats.

Plant polyunsaturated oils are constituted of Omega-6-fatty acids. While these have a cholesterol lowering effect they are not recommended to make up more than 10% of our calorie intake. Omega-3-fatty acids, found most abundantly in cold water marine fish, have a small cholesterol lowering quality, a blood thinning and anti-inflammatory effect, all of which may have a protective effect against cardiovascular disease.

Some plant oils (see Table 1) are rich in monounsaturated fatty acids. Examples include olive oil and canola oil, both composed of more than 50% monounsaturated fatty acids. Monounsaturated fats have an equal blood cholesterol-lowering effect to polyunsaturated fats and most importantly do not suppress the HDL cholesterol fraction as do the polyunsaturated fats.

Dietary cholesterol is found only in the animal kingdom. The highest concentrations of cholesterol are formed in organ meats, eggs, and red meats (see Table 2). Most organizations recommend not more than 300 mg of dietary cholesterol per day.

Recent important findings indicate that dietary fiber has a blood cholesterol-lowering effect. Soluble forms are particularly efficient at lowering blood cholesterol levels. Soluble forms are found in fruits, legumes, and oats. Americans should increase their current intake of about 10-18g/fiber per day to about 25g/day.

(continued on p.14)

Table 1. Fats and Oils: Differences in Fatty Acids Are Important

Vegetable Oils and Shortening	Polyunsaturated Fatty Acids*	Monounsaturated Fatty Acid	Total Unsaturated Fatty Acids*	Saturated Fatty Acids*
Safflower oil	75%	12%	86%	9%
Sunflower oil	66%	20%	86%	10%
Corn oil	59%	24%	83%	13%
Soybean oil	58%	23%	81%	14%
Cottonseed oil	52%	18%	70%	26%
Canola oil	33%	55%	88%	7%
Olive oil	8%	74%	82%	13%
Peanut oil	32%	46%	78%	17%
Soft tub margarine***	31%	47%	78%	18%
Stick margarine***	18%	59%	77%	19%
Vegetable shortening***	14%	51%	65%	31%
Palm oil	9%	37%	46%	49%
Coconut oil	2%	6%	8%	86%
Palm kernel oil	2%	11%	13%	81%
Animal Fats				
Tuna fat****	37%	26%	63%	27%
Chicken fat	21%	45%	66%	30%
Lard	11%	45%	56%	40%
Mutton fat	8%	41%	49%	47%
Beef fat	4%	42%	46%	50%
Butter fat	4%	29%	33%	62%

*Values are given as percent of total fat.

**Total unsaturated fatty acids=polyunsaturated fatty acids+ monounsaturated fatty acids.

The sum of total unsaturated fatty acids+saturated fatty acids will not add to 100 percent because each item has a small amount of other fatty substances that are neither saturated nor unsaturated. The size of the "other" category will vary.

***Made with hydrogenated soybean oil+hydrogenated cottonseed oil.

****Fat from white tuna, canned in water, drained solids.

Weight

Being overweight is associated with increased blood cholesterol levels, hypertension, low levels of HDL, hypertriglyceridemia, and elevated plasma glucose levels. The effects of obesity are particularly important in the under-50-year-old population. The anatomical location of stored excessive fat is important as a risk. Those individuals with disproportionate amounts of fat in the abdomen, buttocks, and waist are at much greater risk for the aforementioned diseases. It is generally agreed that weight loss will have a significant impact on reversing the previously mentioned cardiovascular risk factors and will reduce total blood cholesterol levels.

Physical Activity

Although it is not clear that physical activity as a single behavior will prevent atherosclerosis, regular exercise should reduce or control weight, lower blood pressure, and have a positive effect on the HDL fraction of blood cholesterol. There is evidence that individuals practicing regular physical activity may also have better general health behaviors. Although it is important in controlling body fat, if diet is not changed exercise appears to have little effect on triglycerides or LDL-cholesterol.

Genetics

Genetic factors play a major role in blood cholesterol levels. Normally, there are two functional genes (one from each parent) that equip an individual with LDL-cholesterol and (VLDL) receptors in the liver for cholesterol removal. If one normal gene is missing, an individual will have half the number of LDL-receptors. This is described as heterogeneous familial hypercholesterolemia. This trait afflicts about one in every 500 persons and is typified with poor LDL cholesterol clearance and total blood cholesterol measured of 350 to 400 mg/dl. If both genes are absent, homozygous familial hypercholesterolemia occurs with total

Meat/Poultry/Fish/Alternates

You can trim off most visible fat. But cholesterol is found in both lean and fat. Dry beans and peas (often used in place of meat) contain no cholesterol, and most contain very little fat.

		Total fat	Saturated fatty acids	Cholesterol
		grams	grams	grams
Beef arm,				
Roasted:				
Lean and fat	3 ounces	16	8	180
Lean only	3 ounces	6	3	77
Ground beef,				
cooked:				
Regular	3-ounce patty	17	7	77
Lean	3-ounce patty	15	6	80
Pork rib,				
roasted:				
Lean and fat	3 ounces	20	7	69
Lean only	3 ounces	12	4	67
Beef liver				
fried	3 ounces	9	2	372
Chicken, light and dark meat				
roasted:				
with skin	3 ounces	12	3	75
without skin	3 ounces	6	2	76
Halibut fillets,				
Broiled, with margarine	3 ounces	6	1	48
Tuna salad	1/2 cup	10	2	40
Crabs, hard-shell,				
steamed	2 medium	2	0	96
Dry beans, cooked	1/2 cup	1	trace	0
Peanut Butter	2 table-spoons	16	2	0
Egg, large,				
cooked	1 yoke	6	2	274
1 white	trace	0	0	

serum cholesterol measures of 600 to 1,000 mg/dl frequently being observed in these individuals. In both instances, there is premature onset of cardiovascular disease, particularly if cholesterol-lowering activities are not implemented at an early age.

Alcohol

Moderate amounts of alcohol in the diet have been suggested to slightly improve one's cholesterol profile by increasing the HDL-cholesterol level. Moderate is usually defined by intake of from 1-3oz per day.

Milk/Cheese/Yogurt

Lowfat milk provides about the same nutrients as whole milk, but less fat, saturated fatty acids, and cholesterol.

		Total fat grams	Saturated grams	Cholesterol grams
Milk:				
Whole	1 cup	8	5	33
2% fat	1 cup	5	3	18
Skim	1 cup	1	trace	5
Buttermilk	1 cup	2	1	9
Yogurt:				
Lowfat plain	8-ounce carton	2	14	
Lowfat fruit-flavored	8-ounce carton	2	2	10
Cottage cheese:				
Creamed	1-cup	9	6	31
Lowfat	1-cup	4	3	19
Cheese:				
Natural				
Cheddar	1 ounce	9	6	30
Mozzarella, part skim milk	1 ounce	5	3	15
Process				
American	1 ounce	9	6	27
Macaroni and cheese	3/4 cup	17	7	32
Vanilla ice cream	1/2 cup	7	4	30
Vanilla ice milk	1/2 cup	3	2	9

More recent studies tend to indicate that alcohol increases the HDL-3 subfraction and does not affect the HDL-2 subfraction. HDL-2 cholesterol possesses the antiatherogenic effect and therefore there is reasonable doubt that alcohol has a measurable protective effect.

When one weighs the possible positive effects of alcohol protecting against cardiovascular disease against the possibilities for abuse, nutritionists cannot recommend alcohol usage for its possible protective effect.

In summary we can conclude that adopting the following health practice will aid in controlling and reducing blood cholesterol

1. Diet:

- Reduce intake of fat to 30% of calories.

- Saturated fat should not exceed 10% of calories.
- A relative increase of monounsaturated and Omega-3 fatty acids is advised.

- Reduce cholesterol intake to no more than 300mg/dl.

- Increase the amount of fiber in the diet.

2. Maintain an ideal weight.
3. Exercise regularly.
4. If you use alcohol do so in moderation.
5. If there is a family history of elevated cholesterol you and your children's blood cholesterol should be checked regularly

Department of Health Administration Continues Health Policy Forum

"South Carolina's policy makers need a non-partisan forum in which they can learn about and discuss critical health issues," said Dr. Michael Samuels, chairman of the Department of Health Administration.

The South Carolina Public Health Policy Forum was established by the Department of Health Administration in the USC School of Public Health to meet this need. It brings national speakers to share information and ideas, and to discuss current public health issues with legislators, legislative staff, state agency staff, USC faculty, and members of professional and service organizations. The national speaker makes a formal presentation followed by South Carolina respondents from the public and private sections and then there is a general question-and-answer period. The Forum is a breakfast meeting from 7:30 to 9:00 A.M. at the Koger Center for the Arts. The Health Care Network broadcasts the Forum on Live television throughout South Carolina. Plans are for the Forum to meet four times per year.

The first Forum, held May 3, brought Dr. Paul R. Willging, a nationally recognized expert in long-term care and health services financing. It was attended by approximately 45 people interested or involved in long term care. The second Forum, on September 28th, featured Vince L. Hutchins, M.D., M.P.H. The National Director of the federally funded Maternal and Child Health Program. His topic was "Prevention and the Health of our Children" and the responders were Michael Jarrett, the commissioner of the South Carolina Department of Health and Environmental Control and Ms. Karen Waldrop, chapter coordinator for the South Carolina March of Dimes. Approximately 65 people interested in maternal and child health attended.

The third Forum on December 12th featured William Cates Jr., M.D.,

(continued on p. 18)

French Recounts Russian Experience



When the city recreation director asks you to coach your child's tee-ball team, you agree with some trepidation. You've never coached before. "Don't worry," the director stresses. "We want the kids to have fun – learn good sportsmanship. The fine points of the game will come later."

That's a traditional slice of life in America, but it would never slice that way in the Soviet Bloc, Karen French learned this summer.

French, a sports psychologist and assistant professor of physical education at USC, spent two weeks in June in East Germany and Russia on a research exchange program.

Like many other Americans, she came back with mixed emotions: respect for the Communists' efficiency in training athletes, but unwilling to pay the price in personal freedom and initiative. "It's not that they know more than we do," French observed. "We share much of the same knowledge. They are just far more systematic in application of psychological principles to sports and athletics.

For example, there are no volunteer coaches working with children in East Germany and Russia. Coaches and physical education teachers on every level must be certified by a state-accredited training program. The minimum certification in East Germany requires eight months training, and can be taken in only one place – the Institute for Physical Culture in Leipzig, where 80 of the world's developing countries send their coaches to be trained.

In their visit, sponsored by People to People, French and 27 other sports psychologists from the U.S. and Canada spent four days at the Leipzig institute, seven days at a sports psychology institute in Moscow and two days at a similar facility in Leningrad.

"Sports psychology" is a broad term, outside the United States and Canada. Worldwide sports psychology encompasses motor learning, motor development, and motor control as well as the psychological aspects of sports.

"I am a motor development specialist," says French. "Some of my interests are in youth sports and how children learn sport strategies and sport skills."

with children aged 14 and up, measuring their reactions to a visual stimulus, and working to make the movements and response selections faster."

French says the East German professors allowed the visitors to observe their experiments, equipment, and lab techniques. The visual stimulus varied from sport to sport, French said. In fencing, the research subject was asked to respond to stimuli which modeled opponent's actions. In soccer, the subject responded to slides of a game situation.

"They had an apparatus that allowed a player to stand on a platform with a soccer ball in front of him. The player reacted to the slides of game situations by kicking the ball to one of



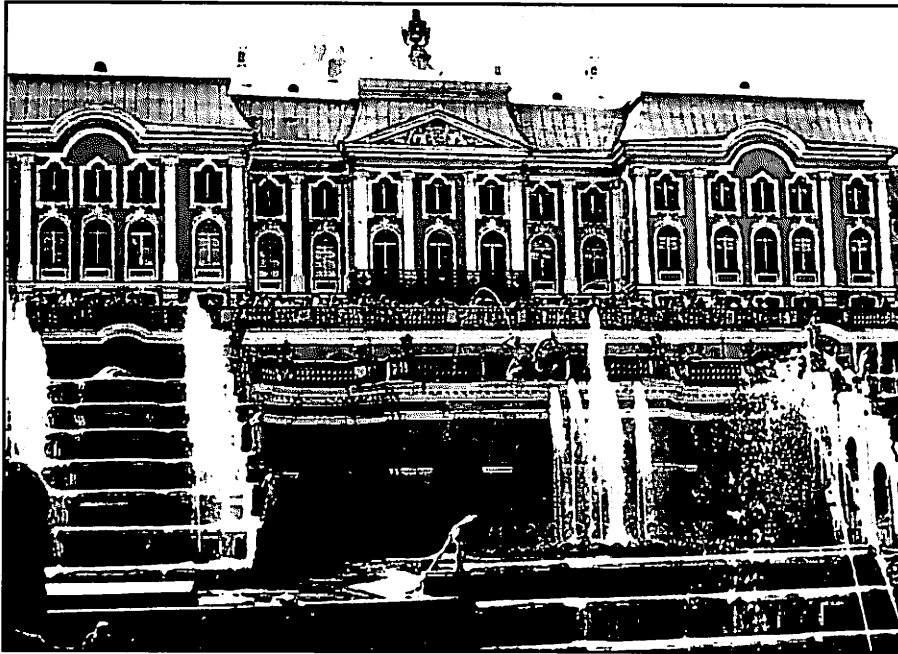
French visited Lenin's tomb in Red Square during her visit to Moscow. She noted that the Russian people were so quite and subdued. "You could walk in Red Square and hear very little noise."

The most meaningful part of her trip, French says, was to Halle University in East Germany, where she met with two professors conducting research into the cognitive aspects of skilled sports performance.

"They were interested in being able to speed up an athlete's decision-making. They were working principally

four different targets. They could measure the reaction time to access speed in response selection and movement time (the time of ball flight to the target)."

French said she found the work extremely interesting. The East Germans were working with older athletes who established the accuracy of sport decisions. In younger children learning

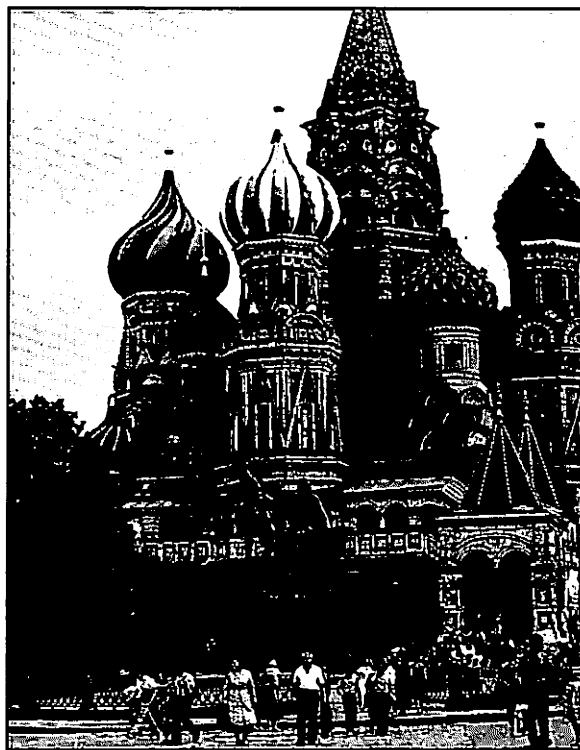


behavior, how to concentrate, how to relax. Our coaches don't get that kind of training. U.S. teams are hiring sports psychologists now, but we are relatively new at it, even at the Olympic level. And when there is disagreement between the psychologist and coach, my experience is that the coach wins."

(Top left) The Summer Palace outside Leningrad. (Below left) A Russian fencer equipped for computer testing at Halle University in East Germany. The student was asked to respond to visual stimuli which modeled an opponent's actions. Researchers were interested in being able to speed up her decision-making and response time. (Below right) St. Basil's, a famous Russian landmark, is one of the boundaries of Red Square.



sports, it is important to develop accuracy. "There is a speed-accuracy tradeoff. If you're not accurate, what difference does speed make? Young athletes often do not select correct responses in sport situations. I'm more interested in how younger children learn what to do in game situations, how they learn to make correct decisions. When, for example, do you throw to first base?" Once accuracy in decision making is established, the speed of



decisions becomes more critical to performance.

Among other differences, the division of labor that exists in the U.S. between coaches and sports psychologists is eliminated in the East German system, French says, where all coaches and p.e. teachers are trained as sports psychologists. "Their coaches are teaching players how to control their emotions, how to regulate their own

All observations – positive and negative – were colored for French simply by the experience of being in a Communist country. "In both countries, the general public was so quiet, so subdued. You could walk in Red Square and hear very little noise." The legendary supply shortages became most evident at an Inter-tourist Hotel about 15 miles outside of downtown Moscow, where it became obvious that the people were unable to buy laundry detergent. Each visitor had the opportunity to have dinner in one of their hosts' homes. French visited in an apartment which she says was quite nice by Russian standards ("it

looked basically like the '50's") and where she was served meat for dinner – not the case for many of her fellow travellers. "The people were wonderful, just wonderful!" Several, however, were frightened by the rebellions going on in the republics and there was uneasy talk of revolution. Russians, French said, are astounded at the changes wrought by Soviet Premier Gorbachev, and one

(continued on p. 23)

Forum (from p. 15)

M.P.H., director of the Division of Sexually Transmitted Diseases, U.S. Centers for Disease Control. He spoke on the current epidemics in sexually transmitted diseases.

The Forum is directed by Dr. Michael Samuels, chairman of the Department of Health Administration. Ms. Terri Timbes is the administrator. The Forum receives financial support from the Institute of Public Affairs, U.S.C. (directed by Dr. L. Douglas Dobson) and is co-sponsored by the South Carolina Public Health Association (Richard Funderburk, President).



Ann VanBrackle



Kenneth Vaden

Hulka (from p. 11)

editorial boards, and provided leadership for a number of professional societies. She has served on numerous national health committees, chairing many of them, including the 1985-86 Committee on Passive Smoking named by the National Academy of Sciences. She chaired the NIH Epidemiology and Disease Control Study Section from 1981 - 1983, and the National Cancer Institute's Board of Scientific Counselors for the Division of Cancer Prevention and Control in 1984-85.

Research (from p. 5)

at Lake Wylie was killed when another 13-year-old ran over her. The state's consumer advocate has called for age restriction on the use of the craft.

Vernberg is a 1979 graduate of the School of Public Health, where she received her M.P.H. degree with a major in Health Promotion. Prior to moving to Miami, she was an instructor of neurosurgery in the Department of Neurological Surgery at the University of Virginia Medical Center in Charlottesville. She began her research into injuries and their prevention while in Virginia, focusing on poison prevention, motor vehicle safety, and brain injury, including the effects of alcohol on the level of consciousness of head-injured patients.

Environmental Students Receive National Award From AIHF

USC was one of 10 colleges and universities to receive scholarship funds from the American Industrial Hygiene Foundation for 1988-89.

The \$3,000 scholarship grant went to two students in the Department of Environmental Health Sciences in the School of Public Health. The student recipients were featured in the August issue of the American Industrial Hygiene Journal. They are: Ann VanBrackle, pursuing an M.P.H. with a major in industrial hygiene. She holds a B.A. in biology from Mary Baldwin College, where she presented the senior paper entitled "Impact of Genetic

Engineering and Monoclonal Antibody Treatment in Cancer Research." She served as a graduate assistant with the IBM Corporation, where she gained experience in the review and updating of Material Safety Data Sheets.

Kenneth Vaden, working toward his M.S. in Public Health, is specializing in industrial hygiene. He holds a B.S. in chemistry from Virginia Tech. Vaden is involved in research to determine air film resistance of diffusive samplers, and recently implemented an industrial hygiene program for the Dorn Veterans Administration Hospital in Columbia.

Thanks for your generosity!

When College of Health alumni were asked to contribute to USC's Annual Giving Campaign last year, the average gift came to just under \$55.00. The 1988-89 campaign ended with the fiscal year. The 1989-90 campaign is now underway.

The asking process is a simple one. As an alumnus or alumna, you receive a letter which outlines the ever-more-important role of annual gifts in the life of the College and the University. The letter is followed by a telephone call from a student at the University who asks if you will make a pledge.

Last year's average gift from College of Health alumni correlated very closely to the averages of other schools and colleges of health across the nation, says Penny Parker, USC's Director of Annual Giving and Special Campaigns. Dean Winona Vernberg noted that this is especially significant in light of the fact that the College of Health is only 15 years old, and many of its graduates are still establishing themselves in their careers.

"Alumni have no idea how much we appreciate their support,"

(continued on p. 19)

Alumni News

Class of 1971

Tim Moore graduated from the USC law school in 1988 and is currently living in Barnwell, SC.

Class of 1972

Ron Caldwell is an athletic trainer at Spring Valley High School.

Class of 1976

Cheryl Hitchings is an assistant professor of health, physical, education, recreation and dance at Bridgewater State College in Bridgewater, MA.

Class of 1978

Deborah Fellin Ullman is an accreditation coordinator with the IDEA Foundation, a professional fitness organization.

Class of 1979

J. Ron Faulkenberry was promoted to professor of health education at Francis Marion College. He was designated a certified health education specialist by the National Commission for Health Education Credentialing. He has also served as a consultant for Lancaster County Schools to develop curriculum materials and implement a comprehensive school health program.

Michael Garrigan has been appointed president of St. Francis Hospital and Health Care Center, Blue Island, IL

Class of 1980

Robert A. Tomlinson is currently employed as program coordinator with the L.I.F.E. Adult Day Care Centers, Inc. of Concord, NC. He is also a part-time instructor with Rowan-Cabarrus Community College where he teaches classes in gerontology, health education, and sociology. He and the former Sandra K. Henderson were married on Saturday, August 5, 1989.

Class of 1981

Sheila Horton Boles is teaching at Gilbert Elementary School. She has a baby girl, Sarah Jane, born in December 1988.

Jeffrey L. Coates was hired as the executive director of Ohio Sports Festival in January 1989.

Avis B. Griffith lives in Matthews, N.C. where she does contract work in the field of communicative disorders. She has two children, Jay, age three, and Elizabeth, age one.

Susan V. Martin is a 1988 class member of Leadership Kentucky. Susan lives in Prestonsburg, KY.



Calvin Harrison

Class of 1982

David Alan Godwin graduated from the USC School of Medicine in May 1987. He is currently doing a residency in obstetrics and gynecology at Greenville Memorial Hospital in Greenville, SC. He and his wife Jane have two children, Alan, age four and Jennifer, age two.

Patricia Clagett Kassel is the assistant state coordinator for Carolina Health-style, a state employee health promotion program.

Janet McMahon is currently directing the employee wellness program for Southern Bell Telephone in South Carolina. She is also vice-president, board of directors for Welcom (Wellness Council of the Midlands). She had a baby, Kevin Michael, on February 11, 1988.

Class of 1984

Mohamed Al-Khateeb is working as a consultant for WHO and Unicef. He will be regional advisor for health education for WHO in Alexandria, Egypt, in May 1990.

Class of 1985

Cheryl Caldwell Stevens is working part-time with the Oconee Memorial Hospital Wellness Center as a coordinator of programming for special populations.

Class of 1986

Doug Baughman and **Wendy Smith Baughman** (class of '83) had a baby girl, Morgan Elizabeth, on October 10, 1989.

Marion Clark accepted an expert appointment with the International Health Program Office, Centers for Disease Control, in February 1989. In addition to regular consulting for CDC in the Africa Child Survival Initiative, she does independent consulting for the Academy for Educational Development.

Ramsey E. Makhuli is employed with the S.C. Commission for Alcohol and Drug Abuse.

Marion McNeil is chief of the Community Health Nursing Service for 121 EVAC Hospital in Seoul, Korea. In December of 1988 she was promoted to lieutenant colonel, U.S. Army Nurse Corps.

Wyman Nettles is now employed with Azmuth, Inc., in Columbia.

Patricia Sharpe was awarded a two-year fellowship by the Institute of Gerontology and the School of Public

Health at the University of Michigan. The predoctoral traineeship program is funded by the National Institute on Aging. For the 1988-89 academic year Patricia was named CEW Scholar by the Center for Continuing Education of Women at the University of Michigan and awarded the Best Products Foundation Scholarship.



Terry Hiltz

Class of 1987

Jim Walker and **Lucy Hollingsworth** were married on July 15, 1989.

Class of 1988

Janet Wessinger is director of Health Education with the Wateree Health District.

Douglas R. Carver was accepted into the U.S. Navy Medical Service Corps, Lt. j.g. in August of 1989. He is also president of Carver Occupational Health and Safety Services, Inc., a private practice for local manufacturing firms.

Class of 1989

Calvin Harrison was named coordinator of the Richland Memorial Center for Cancer Treatment and Research.

Terry A. Hiltz is back at USC working for the Health Sciences Computing Laboratory doing consulting and working as a database integration facilitator.

College News

School of Public Health

Presentations and Other Activities

Suzan D. Boyd presented "Planning and Marketing of Ambulatory Care Technology," at the Society for Ambulatory Care Professionals of the American Hospital Association meeting in San Francisco, Apr. 29, 1989.

Gale Norman Coston has been appointed to the Editorial Board of *The Cleft Palate Journal: An International Journal of Craniofacial Anomalies* published by the American Cleft Palate-Craniofacial Association.

Deborah C. Glik presented "The Redefinition of the Situation: The Social Construction of Spiritual Healing Experiences," at the Society for the Scientific Study of Religion in Salt Lake City.

...presented with William B. Ward, **Andrew J. Gordon**, Fassu Haba "Malaria Treatment Among Young Children and Their Mothers in Guinea," at the Society of Applied Sociology, in Denver.

...presented with **Jennie J. Kronenfeld** and **Kirby L. Jackson** "Parents Perceptions of Risk: Linkages to Safety Behaviors for Younger Children", Medical Care Section of the American Public Health Association Section in Chicago, Oct. 1989.

...presented with **Kirby L. Jackson** and **Jenny J. Kronenfeld** "Safety Practices of Mothers of Young Children," at the American Public Health Association meeting in Chicago, Oct. 1989.

...presented with Mee Keung Suh "Social Support Among the Korean Aged in Seoul," at the American Public Health Association meeting in Chicago, Oct. 1989.

Andrew J. Gordon presented with **Deborah C. Glik** "A Multiple Methods Evaluation of an Immunization Program in Conakry, Guinea," at the American Public Health Association meeting in Chicago, Oct., 1989.

David B. Hawkins presented six hearing aid presentations at a hearing aid workshop for the Southern Audiological Society in New Orleans, 1988.

...presented "Hearing Aid Selection," at an invited one-day workshop to the Georgia Speech and Hearing Association in Atlanta, 1988.

...presented "Selection and Evaluation of Hearing Aids," at an invited Eight-hour workshop presented to the 1989 Winter Conference at Morton Plant Hospital in Clearwater, Fla., 1989.

...presented "Selection of Output Limitation," to the Academy of Dispensing Audiologists in Phoenix, 1989.

...presented "Introduction to Hearing Aids; Intermediate Hearing Aids; Advanced Considerations in Hearing Aids," three invited workshops to the National SHHH (Self Help for the Hard of Hearing) Convention in Washington, D.C., 1989.

...presented "Two-day Workshop on Hearing Aids and Hearing Aid Selection," an invited workshop to the Utah State University Summer Institute on Communicative Disorders in Logan, UT., 1989.

...presented "Ear Canal Probe Tube Microphone Measurements," an invited Eight-hour workshop to the University of Michigan Otolaryngology and Audiology Department in Ann Arbor, MI., 1989.

...presented "Issues in Clinical Audiology and Hearing Aids," an invited workshop in St. John, New Brunswick, Canada, 1989.

...is a reviewer and question writer for the Educational Testing Service (ETS) National Audiology Examination.

...is a consultant to the National Veterans Administration Hearing Aid Contract Program.

...is a consultant to the Canadian Speech and Hearing Association concerning a proposed national examination for the "Hearing Aid Dispenser."

...is an invited consultant/panel member to City University of New York Conference on Research Priorities in Hearing Aids, New York, New York.

...is an invited panel member to a conference entitled "The Audiology Professional Doctorate Degree: Feasibility and Implementation," in Nashville.

...is a reviewer for Hearing Aid Paper Submissions for the 1989 American Speech-Language-Hearing Association Convention.

...is a member of the American Academy of Audiology Task Force to the newly formed National Institute of Deafness.

...presented with **Allen Montgomery**, H. Mueller, and R. Sedge "Assessment of Speech Intelligibility by Hearing-impaired Listeners," to the Fifth International Congress on Noise as a Public Health Problem, in Stockholm, Sweden, 1988.

...presented with others "Future Directions in Hearing Aid Design," a mini-seminar at the American Speech-Language-Hearing Association Convention in Boston, 1988.

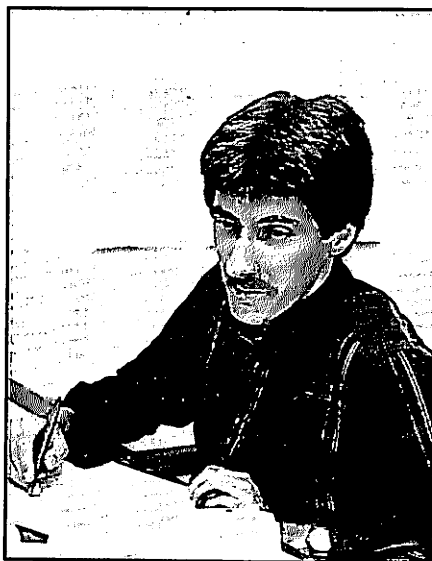
...presented with D. Pascoe, and H. Levitt, "Assessment of Hearing Aid Performance and Benefits from Amplification," at an invited mini-seminar at the American Speech-Language-Hearing Association Convention in St. Louis, 1989.

...presented with E. Alvarez and J. Houlihan "Reliability of Three Types of Probe Tube Microphone Measurements," at the American Speech-Language-Hearing Association Convention in St. Louis, 1989.

Jenny J. Kronenfeld presented with **Deborah C. Glik** "Well Roles: An Approach to Incorporating Role Theory into Medical Sociology," at the American Sociological Association meeting in San Francisco.

...presented "Access to Health and Proposed Government Changes: Impacts for Business and the Public," at the Blumenthal Conference on Social Responsibility, Medicine in the Market Place, Queens College, Little Switzerland, North Carolina, 1989.

...presented with E. Greer Gay "Effects of DRGs, HMOs, Rate Setting: A Tale of Two States," at the American Public Health Association meeting in Chicago, Oct. 1989.



Jim Hussey

...presented with **Samuel L. Baker** "Using DRGs for Program Evaluation: The South Carolina Medicaid High Risk Channeling Project," at the Association for Health Services Research in Chicago, Oct. 1989.

...presented with **Kirby L. Jackson**, **Francisco S. Sy**, J. Daniels, and N. Steplight "Infection Control Practices and Knowledge/Attitudes Towards AIDS Among Dental Health Professionals," at the American Public Health Association Meeting in Chicago, Oct. 1989.

...presented with **Caroline A. Macera**, D.R. Davis, **Kirby L. Jackson**, and S. N. Blair "Examination of Non-Response to Mail Survey in a Longitudinal Study of Physical Activity, Physical Fitness and Health," at the American Public Health Association meeting in Chicago, Oct. 1989.

William A. Cooper received Honors of the Association for contributions to Audiology at the Annual Convention of the South Carolina Speech-Language-Hearing Association in Myrtle Beach, March 30-31, 1989.

...was elected Secretary of the South Carolina State Board of Examiners in Speech-Language Pathology and Audiology in June 1989.

...received a grant for \$27,450 from the Augusta Veterans Administration Medical Center to study "Variables Affecting Hearing Aid Performance."

...presented with T.E. Copps, V.D. Larson, P.B. Balfour, and B.A. Brooks "Ear Canal SPL Relationships to residual Volume Venting," at the Convention of the American Speech-Language-Hearing Association in St. Louis, Nov. 1989.

...presented with V.D. Larson, D.P. Egolf, and J.A. Oliver "Estimates of Aural Acoustic Impedance Quantities," at the Convention of the American Speech-Language-Hearing Association in St. Louis, Nov. 1989.

Caroline A. Macera presented "Comparison of Log Data and Nine-month Recall Data on Time Spent in Specific Leisure-time Physical Activities," at the American Public Health Association meeting in Chicago, Oct. 1989.

...presented "Musculoskeletal Problems in Habitual Runners," at the annual meeting of the Society of Epidemiologic Research in Birmingham, 1989.

Michael Samuels received the William D. Miller Award from the American Association of Colleges of Osteopathic Medicine.

Charles N. Still presented "Distributions of Race and Sex in South Carolina," at the annual meeting of the Southern Medical Association, Nov. 1989.

...presented "The South Carolina Registry for Dementing Illness-A Preliminary Report," at the annual meeting of the Gerontological Society of America in MN., Nov. 1989.

Francisco S. Sy presented "AIDS Education: The Experience at the University of South Carolina," at the Third International Conference on AIDS Education in Nashville, Sept. 1989.

...presented with **Jennie J. Kronenfeld**, **N. Steplight**, **J. Daniel**, **Kirby L. Jackson** "AIDS and Dental Health Professionals: Knowledge, Attitudes, and Infection Control Practices," at the Fifth International Conference on AIDS in Montreal, June 4-9, 1989.

...presented with **Donna L. Richter**, **Jim R. Hussey**, **Theocharis Theocharis**, and **Diane Summers** "AIDS & Women: Change in Sexual Behavior," at the Fifth International Conference on AIDS in Montreal, June 4-9, 1989.

...presented with **Donna L. Richter**, **Jim Hussey**, **T. Theocharis**, and **D. Summers** "College Women's Sexual Behavioral Intent and Perception of Risk of HIV Infection for Self and Peers," at the V International Conference on AIDS in Montreal, Canada, June 4-9, 1989.

Harriet G. Williams presented "Timing Control in Clumsy Children," at the Society for Neurosciences meeting in Phoenix, Nov. 3, 1989.

Publications

Daniel P. Adley and **Dwight W. Underhill**, "Fundamental Factors in the Performance of Diffusive Samplers," *Analytical Chemistry*.

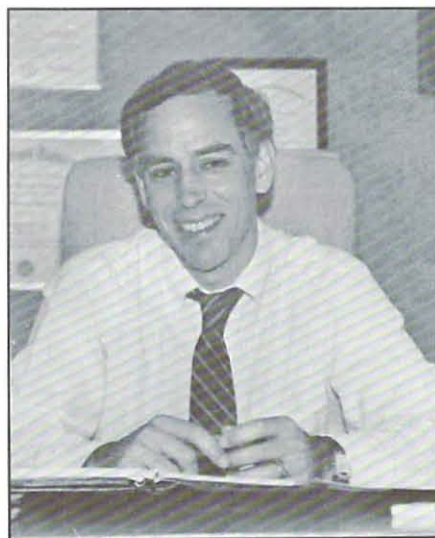
L. R. Cox, **William A. Cooper, Jr.**, and **Hiram L. McDade**, "Teachers' Perceptions of Adolescent Girls Who Wear

Hearing Aids," *Language, Speech, and Hearing Services in the Schools*.

Marcia L. Cynamon, **Jennie J. Kronenfeld**, and **Edward O. Laumann**, "Measuring Behavior Related to Risk of AIDS," *Health Survey Research Methods*.

Deborah C. Glik and **Jennie J. Kronenfeld**, "Well Roles: An Approach to Reincorporate Role Theory into Medical Sociology," *Research in the Sociology of Health Care*.

Gay E. Greer, **Jennie J. Kronenfeld**, **Samuel L. Baker** and **Roger L. Amidon**, "An Appraisal of Organizational Response to Fiscally Constraining Regulation: The Case of Hospitals and DRG's," *Journal of Health and Social Behavior*.



David Hawkins

David B. Hawkins, **T. Morrison**, **P. Hallagan** and **William A. Cooper**, "Use of Probe Tube Microphone Measurements and Hearing Aid Selection for Children: Some Initial Experiences," *Ear and Hearing*.

Jennie J. Kronenfeld, "Organizational Structure and Budget Uncontrollability in Health Financing," *Public Budgeting and Financial Management*.

V. D. Larson and **William A. Cooper**, "A Comparison of HA-1 2-ml Couplers," *Ear and Hearing*.

Caroline A. Macera, **Russell R. Pate**, and **D. Davis**, "The Alameda Seven-Revisited," *Runners' Health Habits*.

...with **Kirby L. Jackson**, **G.W. Hagenmaier**, **Jennie J. Kronenfeld**, **H.W. Kohl**, and **S.N. Blair**, "Age, Physical Activity, Physical Fitness/Body Composition, and Incidence of Orthopedic Problems," *Research Quarterly for Exercise and Sport*.

Hildegard R. Maricq, **Martin C. Weinrich**, **J.E. Keil**, **E.A. Smith**, **F.E. Harper**, **A.I. Nussbaum**, **E.C. LeRoy**, **A. R. McGregor**, **F. Diat**, and **E.J. Rosal**, "Prevalence of Scleroderma Spectrum Disorders in the General Population of South Carolina," *Arthritis and Rheumatism*.

H.G. Mueller and **David Hawkins**, "Some Preselection Considerations," *Handbook of Hearing Aid Amplification*.

Francisco S. Sy, "AIDS Education and Prevention—An Interdisciplinary Approach," *AIDS Education and Prevention—An Interdisciplinary Journal*.

...and **Wade Reynolds**, "Eradication of Filariasis in South Carolina: Historical Perspective," *Journal of South Carolina Medical Association*.

...and **Donna L. Richter** "Innovative Educational Strategies and Recommendations for AIDS Prevention and Control," *AIDS Education and Prevention—An Interdisciplinary Journal*.

R.B. Sayetta, **Martin C. Weinrich**, and **Gale C. Coston**, "Incidence and Prevalence of Cleft Lip and Palate," *The Cleft Palate Journal*.

Teresa Stevens, **Kirby L. Jackson**, **Paul Garrison**, **Steven Blair**, and **Jennie J. Kronenfeld**, "Smoking Behavior and Attitudes in the Workplace," *Health Education Research*.

Cecilia J. Tidwell and **Dwight W. Underhill**, "Estimating Contaminant Concentration from Uptake on a

Diffusive Sampler," *Analytical Chemistry*.

Marcia Lynn Whicker and **Jennie J. Kronenfeld**, "The Impact of AIDS on Male-Female Relationships," *Socio-economic Planning Sciences*.



Deborah C. Glik

Physical Education

Presentations and Other Activities

Karen E. French, Judy E. Rink, and Peter H. Werner were program consultants for East Carolina University, Oct. 1989.

Kathy C. Graham presented "The Influence of Professional Preparation on Preservice Development: Beyond a Custodial Orientation," at the R. Tait McKenzie Symposium on Sport Pedagogy in Knoxville, Oct. 1989.

Malissa Martin was elected president of the South Carolina Athletic Trainers Association, 1990-1992.

Judy E. Rink presented as keynote speaker "Two Decades of Research on Teaching Physical Education: Where Are We Now?," at the R. Tait McKenzie Symposium on Sport Pedagogy in Knoxville, Oct. 1989.

Publications

Kathy C. Graham, "Using the Research Base to Improve Teacher Education: Current Status and Outlook for the Future," *The Professional Educator*.

... "Paradigms for the Study of Teacher/Student Behavior: An Alternative Perspective," *Research Quarterly for Exercise and Sport*.

Jim A. Keith and John H. Spurgeon, "Psychological Measures of Black and White Female Athletes Taken Over a Decade," *South Carolina Journal of Health and Physical Recreation*.

S.J. Le Protti, W.K. Giese, **John H. Spurgeon, Jim A. Keith**, S.S. Juk, C.G. Robinson, S. Molnar and J.D. Branch, "Some Results from a Physical Fitness and Health Enhancement Program for Law Enforcement Personnel," *Journal of the South Carolina Medical Association*.

Judy E. Rink and Peter H. Werner, "Case Studies of Teacher Effectiveness in Second Grade Physical Education," *Journal of Teaching in Physical Education*.

P.R. Robinson and **John H. Spurgeon**, "Body Size and Form of Black Girls Age Nine Years Living in Central South Carolina and Eastern North Carolina," *American Journal of Human Biology*.

Contributions (from p. 18)

Vernberg said. "Their gifts help meet needs which state funds simply cannot meet." Parker said that University-wide, the four-year history of the Annual Fund Campaign has seen the number of alumni donors increase from about 3,000 to approximately 12,000. The average gift has increased every year.

Last year's average gift University-wide was just over \$70.00. In the short time that this year's campaign has been underway, Parker said, the average gift is around \$80.00.

Clarke Will Be Missed by Healthcare Community

Emily Gayle Clarke, graduate of the USC School of Public Health, died at the age of 42. She received a M.P.H. degree in the Department of Health Administration in 1977. At the time of her death she was nearing completion of her Ed.D. degree at USC.

Clarke was a former program director with the South Carolina Lung Association and coordinator of educational health programs at the Lexington Medical Center. She was president of EdVenture Enterprises where she conducted workshops and did consultation for health care institutions in the United States and abroad.

Clarke was a member of Altrusa Internasional, the American Society for Health Care Education and Training, the American Marketing Association education committee and the Business and Professional Women's Club. She was president-elect of the Carolina Society for Health Care Education where she served on the board for five years, and received many awards for her contributions. She was not only active in her profession but was also a founding member of the Lexington County Young Republicans, and former secretary of the Lexington County Republican Party.

Clarke will be missed not only by the health care community but by all who knew her.

Russian Experience (from p. 17)

woman kept repeating, "I would never have believed I would have Americans to dinner at my house."

French said she was exceedingly glad to return home, and now watches news footage of East German and Soviet freedom movements with an acute sense of understanding. "Being there made me ask myself, 'What's your excuse, Karen?' You have all the freedom to do anything you want. You have to make the most of your life."



Nineteen students from Bolivia spent time in Columbia visiting the School of Public Health and the Department of Environmental Control as a part of their training program at the International Center for Public Health Research. They got a taste of American culture during a trip to Riverbanks Zoo and the State Fair. Three of the students had to try on the School of Public Health t-shirts they were presented during their tour of the school.

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