School of Public Health

Challenge

University of Minnesota Winter 1987

Hearty Heart Teaches Kids Good Habits

by Virginia Perrot

Parents may despair when their kids begin to eat like aliens. But if those kids are taking part in the Hearty Heart program, that's just what they're supposed to do.

The colorful program, designed in the Division of Epidemiology at the School of Public Health, has brought a cast of cartoon characters to life. They are Hearty Heart, Salt Sleuth, Dynamite Diet, and Flash Fitness, who have just arrived from the planet Strongheart to teach earthling children healthy ways to eat.

Over 2,500 third-graders in elementary schools in Mankato, Fargo, Moorhead, and Bloomington are participating in the program. By following the example of Hearty Heart and his alien friends, they can learn good eating and exercise habits that may last throughout their lives. And according to the specialists who devised the program, those habits may decrease the children's risk of developing heart disease later on.

Hearty Heart and his friends are the brainchildren of Cheryl L. Perry, associate professor; Rebecca Mullis, nutritionist and assistant professor; Marla C. Maile, community program specialist; and Helen Roemhild-Wilke, curriculum specialist. Their ideas were translated into drawings by Twin Cities cartoonist Bill Kinney.

The four created the Hearty Heart program after reviewing studies showing that American children have elevated cholesterol levels compared to children from other countries with lower rates of heart disease.

The program began in 1981 as part of the Minnesota Heart Health Program, a community-based project sponsored by the National Institutes of Health. Hearty Heart was first introduced in the fall of 1982 into four elementary schools in Mankato.

The pilot program included 20 sessions over ten weeks. The curriculum was taught by classroom teachers who had received special training at the University with the researchers, and by interns who were majoring in community health or foods and nutrition at Mankato State University.

The Hearty Heart sessions were offered twice each week, the first concentrating on presenting new nutrition information, and the second spent preparing heart-healthy foods.

Rather than trying to get children to memorize information, Perry says the approach was "to get kids to be able to discriminate and take action" in deciding what they would eat. In fact, third-graders were chosen because they are beginning to assert more independence in developing their own eating patterns, she explains.

The children were shown a series of slide-tape shows on the adventures of the characters as they visited earth to learn about heart-healthy diets. The kids prepared foods in class, took part in aerobic exercises, and kept 24-hour records of their food intakes and physical activities. They also met in small groups to discuss goals they wanted to achieve.

Andrew Halper, Knut-Inge Klepp, Cheryl Perry and Bonnie Dudovitz discuss the Hearty Heart program.

In addition, the children finished "Heartwork" assignments at home. Parents signed the assignments and received memos informing them of classroom activities and ways they could encourage their children in healthy eating and exercise habits.

In follow-up surveys, the children who participated in Hearty Heart showed significant decreases in salt and fat consumption and increases in their complex carbohydrates. They also reported eating less sugared cereal, more dark green vegetables, more fruit, less fried foods and fewer foods with added salt. The children reported no significant differences in eating such foods as potato chips, candy, soft drinks, legumes, meat, fish or chicken. And overall, sugar consumption did not decrease.

"We didn't create a sugar character initially because sugar consumption is not a primary risk-related behavior for heart disease," Perry notes, "so that explains in part why sugar intake didn't decline."

In fine-tuning the curriculum, Perry and the other researchers put more emphasis on eating lean meats. They also cut back food preparation sessions in schools and included only healthy snacks that kids could prepare without a stove.

Today the Hearty Heart curriculum emphasizes the importance of adding whole grains and complex carbohydrates to the diet, replacing high-fat and high-salt foods with foods lower in fat and salt. And it uses a variety of skills to promote these changes in eating behaviors.

All along, the researchers had hoped that families would pick up on the new knowledge and habits their children were learning from Hearty Heart. In 1985, they began testing a variation of the program for parents and their children, called the Hearty Heart Home Team.

The Home Team was designed by Cheryl Perry and Marla Maile, along with research assistant Bonnie Dudovitz, and associate scientist Andy Halper. It includes five weeks of activities designed to take about two or three hours each week to complete at home. Each lesson focuses on a single theme. Packets of all neces-

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sary materials are mailed each week to the homes of participating third-grade students from sixteen schools.

For example, the fourth week centers on reducing salt intake. The packet includes a story about Hearty Heart and Friends learning about salt and sodium; a plastic magnifying glass to help the children read food labels as they follow Salt Sleuth through kitchen cupboards to identify high-salt foods; and a sheet of "Team Tips" on how to reduce salt by substituting different spices, making your own salad dressing, or tasting food before salting it.

A Players Guide helps everyone in the family through the activities and gives the number of points earned for parents and for kids for each activity. Bonus points can be earned if all activities are completed and the scorecard returned by the child to his or her teacher on time. Scores were displayed on class bulletin scoreboards to encourage kids to continue, and the families with a minimum number of points were eligible for a free trip to Walt Disney World, donated by a Twin Cities foundation.

Data from the Home Team program is being analyzed, and if outcomes are positive, Perry says researchers will make the program available nationally.

It was a big hit with teachers, Perry reports, and the researchers are most excited about the enthusiasm of parents. Ninety percent of the eligible families said they would participate; 83 percent actually did and 71 percent — a total of 980 families — actually completed the program.

"Traditionally, one of the biggest problems in conducting family health promotion is getting parents to participate in and continue with a project," Perry notes. "We think this shows that parents like to do educational programs with their children. They just don't like to go to a class and be lectured at. The Hearty Heart Home Team brings children and parents together in a creative, fun and meaningful way."

Greene Retires, Begins Second Career

Velvl W. Greene, professor of public health and microbiology, "officially retired" last May after 27 years of teaching, research, and public service at the University of Minnesota. But he returned last fall quarter to teach and to advise several master's degree students.

He and his family have relocated to Beersheba, Israel, where he is professor of epidemiology in the Ben Gurion University Medical School. He is also nosocomial infection epidemiologist at Soroka Hospital, and director of the Sir Immanuel Jakobovits Center for Medical Ethics.

His association with Israel started during a sabbatical leave in 1976 and continued when he was a W.H.O. epidemiology consultant in 1978 and 1981, and a Fulbright Senior Scholar in 1983-84.

Greene has been known here as an outstanding teacher; more than 25,000 students have been enrolled in his lecture, seminar, and laboratory courses. In 1970, he inherited Dr. Stewart Thomson's famous undergraduate course in "Personal and Community Health." Greene taught it to full classrooms several times each year (more recently, he co-taught it with James Rothenberger, chair of the health education major).

Greene and Donald Vesley (director of the Department of Environmental Health and Safety) initiated the first graduate course in environmental microbiology ever offered in an American university. Greene also designed the course "Introduction to Community Health" which he taught for 16 years to several thousand nursing, pharmacy, dental hygiene, and other health science majors. In addition, he taught two television courses presented on the PBS network.

Greene has also served as an academic and thesis advisor to scores of master's and doctoral candidates in public health, nursing, engineering, food science, and microbiology. His first Ph.D. advisee was Bailus Walker, Jr., who is Commissioner of Health for Massachussetts and president-elect of the American Public Health Association.

Greene's talents were not confined to the classrooms and laboratories of our school. He was, and still is, in constant demand as a speaker at scientific symposia and professional seminars throughout the world. A map in his office indicated his appearances in locations from Russia to Hong Kong.

Greene has combined teaching and public service with scholarship and research. He is the author or co-author of nearly 80 scientific papers. Many have been translated into Spanish, German, and Japanese. He was one of the first participants in NASA's bioscience research program. His studies of the microbiology of the stratosphere are considered classics.

He was a key member of the environmental health team, organized 25 years ago by Richard Bond and George Michaelsen, to investigate the role of microbial contaminants in hospital air and on hospital surfaces as nosocomial infectious agents. This subject became the focus of his research career.

Greene has been honored for his work in sterilization by the Veterans Administration, for his NASA work by the National Science Foundation, and for his undergraduate teaching program by the Bush Foundation. In 1984 he was elected to the Israel Selection Committee of the Council for International Exchange of Scholars. He is a fellow of the APHA, the American Academy of Microbiology, and the American Academy of Sanitarians.

Velvl Greene's motto has been "Public Health is One World."

Greene admits to mixed emotions about leaving Minnesota. "I spent the last 27 years of my life doing what I know best at one of the great universities of the world, in a state I love the most, and with some of the brightest and nicest colleagues in the profession," he says. "I am compelled to this move by the teachings of those whom I consider giants in public health, my teachers Gaylord Anderson, Jay Myers, Ruth Boynton, Pete Bearman, and Leonard Schuman, who believed the function of public health is to reduce mortality and morbidity in the community. Everything else is secondary. The real public health problems in the 1980s are over there — in the developing countries. What I know, and what I can do, will have a potentially greater impact on life and health in Negev than in Minneapolis. And I want to do it while I am still young enough and strong enough to work."

Professor Greene hopes to come back to Minnesota for consulting and teaching "as frequently as they invite me." In the meantime, he intends to maintain close contact with his Minnesota colleagues and former students. "As Gaylord Anderson taught in his inaugural address as president of APHA, 'Public Health is One World,' " says Greene. "We'll never really be far away."

Alumni Society Committees Aid "Commitment to Focus"

I am pleased to report on the many activities of the Alumni Society. The Board of Directors and several committees have developed some broad objectives and a variety of activities. An example is the mentorship program being developed by the Student Relations Committee led by Marsha Studer (M.P.H. 1980). This committee has matched 22 Alumni Society members with students. These alumni are performing a tremendous service to the students through their willingness to guide and share their experience. If you're interested in participating, contact Marsha Studer at (612) 874-5430.

The mentorship program also sponsors the "Pathways Seminars." Prominent alumni and friends who have ideas about career opportunities are invited to speak at brown-bag seminars during winter and spring quarters. These seminars were started last spring. The meetings helped students focus on careers that they might not have considered otherwise. Again, contact Marsha Studer if you are interested in conducting a seminar.

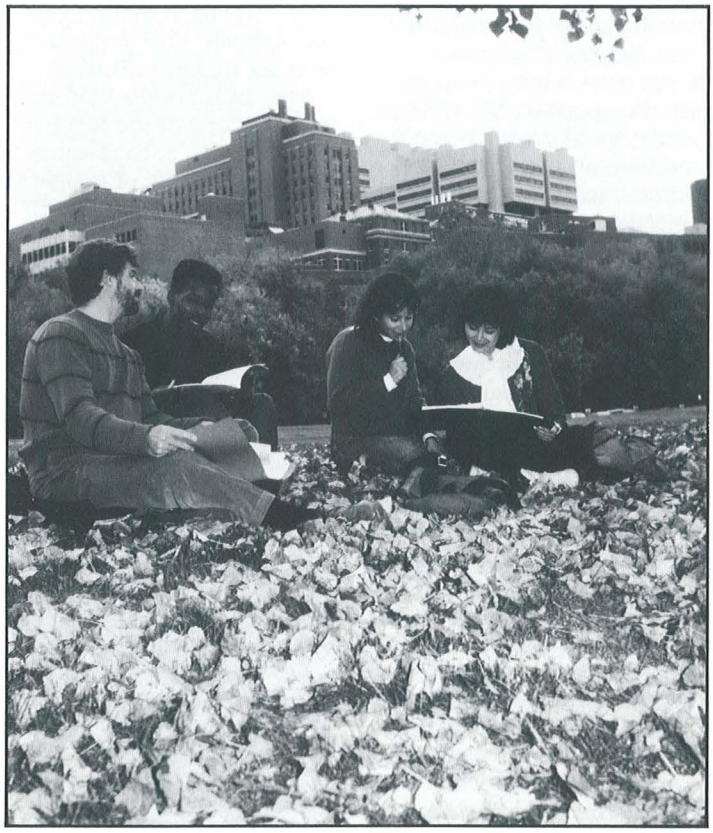
The Membership Committee, under the direction of Dora May Coleman (M.P.H. 1977), has developed a new membership brochure. The committee hopes to increase membership in the society by 20 percent this year. All members of the Minnesota Alumni Association receive benefits of that larger association as well as membership in our own professional society. If you know alumni who are not members but desire a closer relationship with the school, contact Paula Sanders at the Minnesota Alumni Association, 100 Morrill Hall, University of Minnesota, Minneapolis, MN, 55455, or call her at (612) 624-2323.

The Future Directions Committee led by Mary Kay Zagaria-Sammond (M.P.H. 1980) convened a forum in January for alumni and students from the various health sciences units. President Kenneth Keller spoke on "Commitment to Focus" and its application to professional schools. The deans from the health sciences shared their plans for achieving the president's goals. A social hour following the forum provided a unique opportunity for alumni and students to discuss "Commitment to Focus" with these University leaders.

The School of Public Health is adjusting to its reorganization. The many changes are being monitored by a Public Health Nursing Oversight Committee. Members of the Alumni Society on this committee include me, Donna Anderson (M.P.H. 1971), Dick Huset (M.P.H. 1981), Barbara O'Grady (M.S. 1973), Fran Decker (M.P.H. 1961), and Lori Hoff (M.P.H. degree candidate). The group is assisting Dean Kane in identifying reorganization issues and their impact on the ability of students and faculty to work effectively. Issues include faculty assignments to divisions, adequacy of staff support, student adjustment, and teaching and research priorities in the school. Alumni must continue to monitor these changes and provide input to enhance the school's work.

As you can see, it has been a busy fall! We anticipate that winter and spring will be equally productive. Make plans now to join us in April at the annual meeting — a time to reflect and plan.

Mary Lou Christensen, M.P.H. 1976
President



Last fall, over 350 students from 24 states and 20 countries registered in the School of Public Health. In addition, 430 students enrolled during the summer in continuing education and graduate sessions in epidemiology, nutrition and health care administration, and occupational health and safety. Pictured are Andrew Nelson, last year's Student Senate president and an M.P.H. candidate in public health administration; a University student colleague; Ting-Ting Chiang, M.P.H. candidate in maternal and child health; and Karen Stoller, M.P.H. candidate in environmental and occupational health and this year's Student Senate president.

Dean's News

Training Public Health Practitioners

As a professional school, the School of Public Health occupies a special role in a research university. It prepares students for practicing public health as well as for conducting research. The former task — professional education — and the latter — graduate education — are different, although there is substantial blurring of their distinctions.

Professional education is a form of graduate education. Faculty who accept a role to provide professional graduate education do so in addition to graduate education responsibilities.

Here at the University of Minnesota we have recently been challenged by our "Commitment to Focus" to re-examine our academic activities. We must reaffirm our commitment to professional education in the context of a changing university environment.

The School of Public Health has a strong commitment to preparing public health professionals. The centrality of this task dictates a

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regular review of how well we fulfill that mission and how well we adapt to the changing nature of public health.

We begin with some important differentiations. Because the career expectations of graduate professional students are different from those of graduate students, professional education should not be the same as graduate education. Teachers often have an instinctive need to clone, to produce graduates who look like us. But if our graduates are to be future practitioners, they will need to resemble practitioners, not teachers. Given a changing environment, they may need to look different from either current practitioners or teachers.

The professional student must acquire skills, knowledge, and attitudes that will equip her or him to meet the challenges of both present and future practice. The graduate student must learn research skills, among other things, and may thus find the faculty more appropriate as role models.

The faculty in a research university are committed both to research and to teaching. For the professional student, this double commitment raises some initial alarms. Will faculty with a strong commitment to research be able or willing to teach? Although some of our faculty do have strong practice backgrounds, many are not templates for professional students as much as they are for graduate students, but they can and should participate in the education of practitioners. The inspiration for research questions and the test of public health ideas come from such contact.

If a research university is to succeed, it must translate its findings into useful information. Academic faculty have much to teach the professional student because the problems future practitioners will face are likely to be quite different from those faced today. Their skills must be directed toward definition and solution, not simply toward responding to recognized patterns. Thus students must be educated rather than simply trained. At the same time, students need to see the living integration of public health concepts in actual operation. One would not want to fly with a pilot who had studied only the theory of flight.

One obvious implication is the need for stronger links with the practice community. Although many significant practice opportunities already exist, internships and field placements need to be strengthened. In addition, practitioners may need to teach in the classroom as well as in the field. To encourage this, we may consider new forms of joint appointments and better ways to recognize practice faculty.

We are reconsidering the expectations for professional students because they are distinct from those for graduate students and should be assessed as such. For example, the present requirement for a research project may not only be a stumbling block to graduation, but a misdirection of energy. In preparing practitioners, we might be wiser to emphasize interpretation of research findings rather than performing research. Good research is usually slow and painstaking. An inadequate research experience misleads students and wastes faculty efforts. It is difficult to do a quality job in the time available to the average M.P.H. student. Rather than develop a weak study, a student might better examine a public health problem, acquiring a more useful skill.

An ideal professional curriculum would specify in measurable terms the skills, knowledge, and attitudes expected of each graduate. Indeed, all graduates need not and should not look alike. Such performance objectives have several advantages. They provide a clear contract between the educational institution and the student. They make both student and teacher accountable. They permit more flexible learning schedules by eliminating the difficult task of assessing whether various experiences were indeed comparable and refocusing on what was learned.

At the same time, such objectives can result in rather trivial lists of behaviors that somehow miss the forest for the trees. They are often dismissed as being too technically oriented, as reflecting training rather than education.

In fact, the ideal professional curriculum would be just the opposite. We will see similar social contracts more and more in public health — commitments to reach certain objectives that allow substantial flexibility in terms of means of achievement.

The professional graduates of this school should combine both training and education. They will need practical skills to actively enter the increasingly competitive job market, but they will also need an education that prepares them to solve unanticipated problems. Coming from a background in public health should provide them with a broader perspective, one grounded in an epidemiologic approach that addresses the characteristics of groups and seeks those factors that make components similar and different. This is the special flavor training in the environment of a school of public health can offer.

Robert L. Kane, M.D.
Dean

CHALLENGE

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FACULTY NEWS

• **Susan Gerberich,** assistant professor in environmental and occupational health, and **Robert Gibson,** associate professor in epidemiology, were recently awarded a grant by the Minnesota Department of Health to design an injury surveillance system for the State of Minnesota.

• **Lee D. Stauffer,** associate professor and chair of the public health administration major, has been reappointed to the Program Development Board and the Joint Policy Committee of the American Public Health Association.

• **Robert W. ten Bensel,** professor in maternal and child health, was presented the first Michael J. McCulloch Memorial Award at the Delta Society's International Conference, "Living Together: People, Animals, Environment," held last August in Boston.

This award honors Dr. ten Bensel as one of the first persons in the U. S. to research the historical role of people's concern for animal welfare and its influence on the welfare of children. At the award ceremony, Dr. ten Bensel presented the first Michael J. McCulloch Memorial Lecture entitled, "The Importance of Animals and Children: Their Place in the Family and in the World."

ALUMNI SOCIETY ANNUAL MEETING

April 10, 1987

"The Changing Careers of Public Health Professionals" Educational Workshops

"Taking a Gamble with Public Health" — Special Entertainment Night

Details will be mailed to all members or call (612) 624-2323.