Making A Difference: A Community Health Project for Student Nurses

This is an account of an unconventional public health nursing experience that the faculty at the Denton campus of Texas Woman's University College of Nursing is providing for senior nursing students. We are excited about the project because it is accomplishing exactly what we hoped it would do.

Our project, which began in fall 1980, has its roots in a challenge to the faculty from the College of Nursing dean, Dr. Anne Gudmundsen, to find innovative ways of improving health care for residents of the communities surrounding the TWU campuses at Houston, Dallas, and Denton. Believing prevention to be an important part of nursing, we at Denton elected to try to reach a segment of the population that is underserved: the Mexican migrant families who come here for agricultural work.

Frank Davila, at the time a consultant from Migrant Project Title I (part of the State-run Education Service Center at Fort Worth) helped us select the Decatur, Tex., elementary school as the initial target for our efforts. (Decatur is about 30 miles west of Denton and has approximately 4,200 inhabitants, some 10 percent of whom are Spanish-speaking.) There we would be able to work directly with the school nurse and would have the assistance of a bilingual teacher in bridging the language gap.

After reviewing a number of studies of cross-cultural health care and the health problems of Mexican Americans (*1–12*), we developed a plan that was approved by officials of the school and the migrant project. Elements of our proposal were:

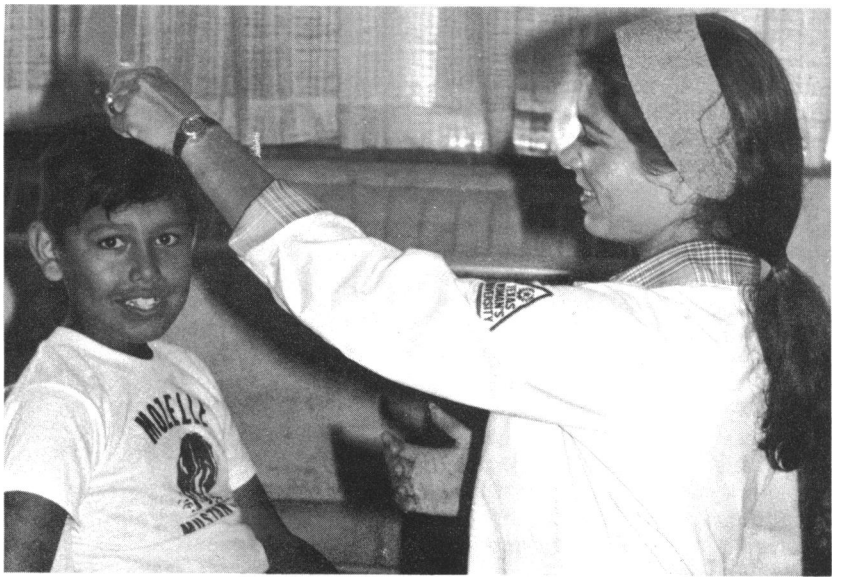
- Classroom health instruction by our students for all children in the second and third grades, covering such topics as nutrition, dental hygiene, personal hygiene, growth and development, mental health and self-image, disease prevention, and accident prevention.
- Nursing-student assessment of migrant children, including physical and nutritional assessment; recommendation of referrals for health services, as indicated; family visits and family health history when possible; one-to-one client-patient teaching; and progress notes on problems identified.
- Assessment by the nursing students of community health services available to migrant workers in Decatur-Wise County and of political, cultural, environmental, socioeconomic, and genetic factors affecting the health of these families.

Because in our preliminary research we had found that not much had been written about nursing projects among migrants of Mexican American background, we decided at the outset to document every step of our project. Technicians from Texas Woman's University used videotape to record our students' work for evaluative and educational purposes. (Eventually, the videotape was edited into a 20-minute presentation, "Making a Difference," copies of which were given to the school and the State's migrant project.)

First Phase

During the fall 1980 semester, 22 senior nursing students participated in the project, devoting to it 2 days every other week. Every other Wednesday, the group divided into nine teams, of which four gave health instruction to second-graders and four taught third-graders. One team, made up of students who could speak Spanish as well as English, taught Spanish-speaking children from both grade levels. The nursing students prepared lesson plans that were given to classroom teachers for approval 1 week before the class in which the plan was to be carried out. Content of the lesson, teaching activities, and a method of evaluation were included in each plan.

Every other Thursday, the group divided in half, and one section worked on nursing assessments of migrant children while the other worked on assessment of the community. These two sections exchanged assignments midway through the semester so that all students had experience with both activities. A pediatric physical assessment tool was used in evaluation of the children, and Archer and Fleshman's model of "Ecosystem Influences on Optimum Level of Functioning" (*2*) was used as framework for the design of community assessments.



Physical and nutritional assessment of migrant children is one of the services performed by TWU senior nursing students during clinical experience

Copies of the nursing assessment records completed by our students were given to the school nurse. The original records went to the migrant project for incorporation in the Migrant Student Record Transfer System in Little Rock, Ark., where they will be available for those children no matter where their families travel. Copies of the community assessments were provided to the school and the Education Service Center in Forth Worth.

Expansion

In the 1981 fall semester, we continued the elementary school program but added a nutritional assessment and counseling project serving Decatur's elderly population. (The assessment completed by our students during the preceding year had identified a need for preventive health care for older persons in the community.) Working at the Decatur Senior Center, our students administered the Nutritional Knowledge Test to clients and explained the procedure for keeping 7-day nutritional diaries. After analysis of the diaries, students sent letters to each client specifying nutritional problems and suggesting improvements in diet. The students also planned and conducted individual and group nutritional counseling sessions.

In fall 1982, we were asked to enlarge our elementary school health program to include kindergarten and first-grade children as well as second- and third-graders. Our students also continued their work with the elderly, but expanded their teaching and counseling efforts to cover other health problems in addition to poor nutrition.

Before our project was initiated, we had arranged with other departments of Texas Woman's University to offer free dental and nutritional services to migrant children and their families. The migrant project provided free transportation to the university for those who elected to use these services. One disappointment early on, however, was that we could not convince the migrant families to make use of all the services we could have made available to them.

But the prob!em of building trust among these families is gradually

A Teacher's View

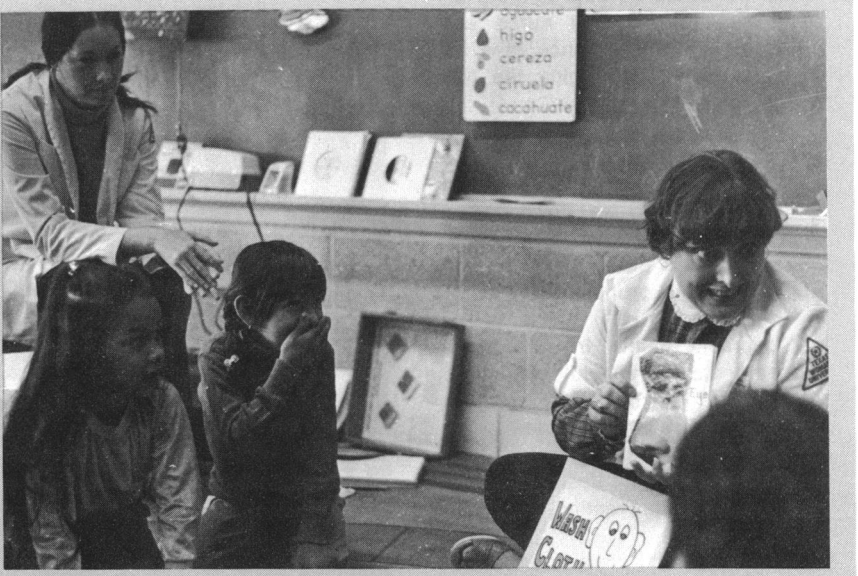
For many primary teachers—including me—health curriculum never seems to have a time slot. Health is blended into science or social studies, is often considered a province of the physical education teacher, and may be mentioned in reading texts.

For the most part, health is "squeezed in" and "squeezed out" as we press for "back to basics" in reading and math skills. But fall 1980 brought a new experience to our faculty teaching second and third grades. Teachers were briefed by the principal on a pilot program for our school. Nursing students from nearby Texas Woman's University would be coming to our classrooms to teach all day, every other Wednesday, during the fall semester. No one knew exactly what this would entail. When the group of white-coated students finally did arrive and walked by twos and threes into the classrooms, I gingerly positioned myself in the back of my room to watch.

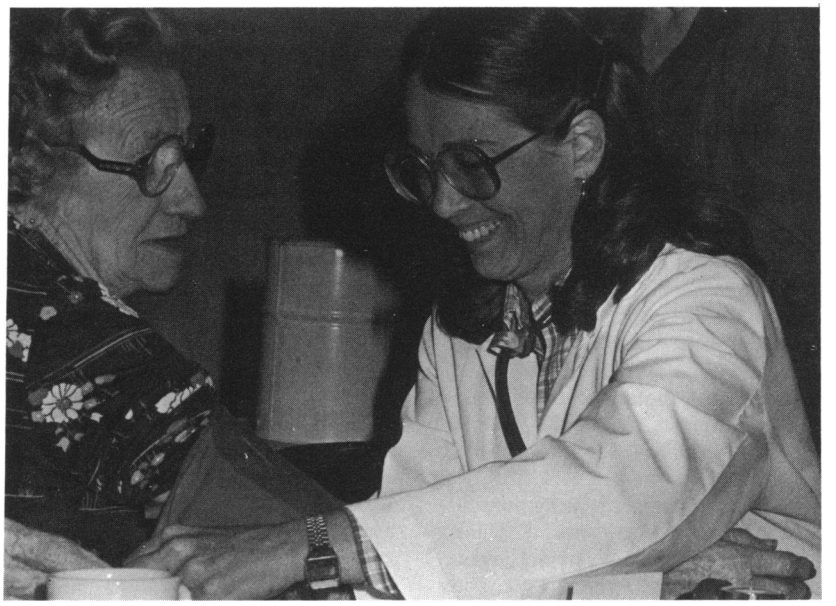
My reservations were completely erased after the first Wednesday. As the sessions progressed, I was as engrossed as the children were by the rich variation of teaching aids, personalities, and techniques. Among examples of these approaches from many outstanding lessons, I remember hand puppets—purple, blue, and yellow—singing "Everyone is different, but special"; medical instruments discussed and handled by the children; a demonstration of the correct way to brush teeth by a nursing student using a huge model of false teeth and a large toothbrush; a three-dimensional model of the human torso that could be taken apart to reveal the organs; the opportunity to look through a microscope at slides crawling with previously unsuspected creatures; and handwashing sessions in which children whose hands had been coated with luminous orange powder could see the powder under an ultraviolet light after skimpy washings.

The nursing students came in shifts and remained an hour before rotating to the next primary class. Questions were asked, slide shows presented, charts colored, learning games played, and young minds introduced to new vistas of vocabulary and to vicarious or actual health experiences. Those Wednesdays became coveted times for the children and me. "The nurses are coming, the nurses are coming!" was the children's uncontainable response—and my feeling also.

—M. SUE WILSON, MSEd, former second grade teacher, Decatur Elementary School, Decatur, Tex.; now principal, Christian Heritage School, Decatur.



TWU senior nursing student Sandra Arthur (right) uses a variety of teaching aids to intrigue children in her health class at Decatur Elementary School



Another facet of students' experience is preventive health care for clients of the Decatur (Tex.) Senior Center

being overcome. The Decatur school system makes no attempt to identify those children whose parents are illegal aliens; thus, parents are more likely to allow their children to enter school and participate in our health program. Because most of the migrant children's parents are dairy farm workers and are therefore a more stable population than workers who move with the seasonal harvest of crops, we have been able to have repeated contacts with many parents over a several-year period and thus increase their understanding of our efforts. We work to reach the families by providing teaching materials, in Spanish and English, for the children to take home; arranging meetings to explain the services we can furnish; and offering special programs, such as nutrition classes, undertaken by our honors students.

The Decatur school system, the senior center, and the migrant project have welcomed and been supportive of our community health program, and our nursing students feel that it offers a unique learning experience. We plan to continue our efforts among the underserved segments of our local population—the migrant families and older citizens—as well as our work in the classroom. The Decatur school system is interested in having us undertake a drug education program for teenagers in junior high and high school, and we are considering doing so.

We hope that this account of our project will suggest to other nursing educators ways that they too can develop nontraditional community health experiences for their students—experiences that can make a difference in their own communities.

—PEGGY J. DRAPO, RN, PhD; CHARLOTTE R. PATRICK, RN, MS, MEd; LINDA PIATT, RN, MS, Texas Woman's University College of Nursing, Denton, Tex. 76204.

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Major Diabetes Clinical Trial Seeks Volunteers

Twenty-one medical centers in the United States and Canada are recruiting volunteers for a clinical study seeking to find out if precise blood sugar control can help prevent the often devastating complications of diabetes.

Sponsored by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases (NIADDK), the Diabetes Control and Complications Trial is examining whether tight control of blood glucose levels can prevent, delay, or lessen complications of type I (insulin-dependent) diabetes, as compared with conventional treatment. Long-term complications of diabetes, caused by damage to blood vessels, can include blindness, heart disease and stroke, damage to nerve tissue, and kidney disease.

New instrumentation and laboratory methodologies—such as the insulin pump, devices for self-monitoring of blood glucose levels, and the ability to measure glycosylated hemoglobin — have only recently made it possible to study the influence of strict blood glucose control, according to Dr. Lester B. Salans, Director, NIADDK.

In the trial, two types of treatment are compared. Experimental treatment consists of either three or four insulin injections daily or insulin given continuously with an insulin pump, self-monitoring of blood glucose levels, and an initial hospital stay and checkups once monthly. Standard treatment includes one or

two insulin injections daily, urine testing, and routine checkups every 3 months. Both treatments include individualized meal programs and educational programs. Volunteers are randomly assigned to one of the groups, and both groups receive care by diabetes specialists.

Initially 252 volunteers will take part in the trial over a 2-year period. If the results of the first 2 years show that a larger study is feasible, a 7- to 10-year clinical trial involving many more patients will be conducted by the same medical clinics.

Volunteers must be between the ages of 13 and 39, have had insulin-dependent diabetes for at least 1 year but not more than 15 years, have no severe diabetes complications, be free of other medical or psychological problems that would make it difficult or unsafe to participate, be responsible for record-keeping and home testing of blood or urine, and live close enough to one of the participating clinics to keep appointments easily.

For more information, write to DIABETES, NIADDK, Bldg. 31, Rm. 9A04, Bethesda, Md. 20205.

Drop in Blood Lead Levels Found in U.S. Population

From 1976 to 1980 the average levels of lead in the blood of the U.S. population ages 6 months through 74 years declined significantly, apparently because of a sharp drop in the use of lead in the production of gasoline, according to a recent report by Public Health Service scientists.

Data collected by the National Center for Health Statistics (NCHS) in the National Health and Nutrition Examination Survey of 1976–80 show that average blood lead levels declined by approximately 37 percent over the 4 years of the survey. Levels declined from 14.6 mg per dl of whole blood to 9.2 mg. Blood lead levels dropped in males and females, blacks and whites, of all ages, including the young children most vulnerable to the toxic effects of lead.

During the same period, the amount of lead used in gasoline production fell from 53,000 to 24,000 tons per quarter year. There was a strong statistical correlation between the reduction in blood lead levels and a concomitant reduction of lead used in gasoline production. The authors of the study stated that approximately 90 percent of the lead entering the atmosphere stems from combustion of leaded gasoline and that its cutback is the "most reasonable" explanation for the reduction in human exposure to lead in the environment.

After studying the survey design and operation, laboratory assessments, changes in exposure to lead in paint, and dietary changes, the authors reported that those factors did not account for the downward trend in blood lead levels.

The report appeared in the June 9, 1983, issue of the New England Journal of Medicine. Principal investigators Joseph L. Annest, PhD, and James L. Pirkle, MD, and the four coauthors are staff members at NCHS and at the Centers for Disease Control, which conducted the laboratory assessments.

New Multidisciplinary Clinic for Pain Research at NIH Seeks Additional Patients

The first multidisciplinary clinic in the United States devoted exclusively to pain research has opened and is now seeking additional patients. It is located in the Clinical Center's Ambulatory Care Research Facility of the National Institutes of Health (NIH), Bethesda, Md.

"With the opening of this new research clinic, NIH scientists from all disciplines will be able to pool their knowledge and exchange ideas," said Margaret M. Heckler, Secretary of the Department of Health and Human Services. "Under the auspices of the National Institute of Dental Research [NIDR], headed by Dr. Harald Löe, we have a unique opportunity to understand and treat not only dental pain but all aspects of pain."

In collaboration with other NIH institutes, NIDR scientists are studying acute and chronic pain to learn about its mechanisms, determine optimal treatment, and develop better ways to assess it. Within the NIH community, consultation on difficult pain-management problems is offered by the research facility's scientists and clinicians.

The clinic evolved from NIDR's longtime interest in pain research; about 25 percent of all chronic pain problems are associated with the face and the oral cavity. Under the direction of Ronald Dubner, DDS, PhD, of NIDR, scientists have been assessing experimental and clinical pain and the use of new agents for pain control since 1974. They have also been studying how the brain codes messages about pain and how these signals can be modified at different levels of the nervous system by chemicals such as morphine-like substances produced by nerve cells. "Our knowledge about pain has increased rapidly in the past 15 years, and we now have a unique opportunity to apply this knowledge to the clinical situation," Dubner said.

The clinic is especially seeking patients with postherpetic neuralgia (shingles), painful diabetic neuropathy, and temporomandibular joint dysfunction, as well as cancer pain and certain kinds of low back pain.

Patients with pain problems that may fit into the center's current research should have their dentists or physicians call or write letters of referral to Dr. Mitchell Max, c/o Clinical Pain Section, NIDR, NIH, Bldg. 10, Rm. 1B15, 9000 Rockville Pike, Bethesda, Md. 20205; telephone 301: 496-5483.

Private Practice Placements Exceed the Expectations of National Health Service Corps

The number of newly available National Health Service Corps (NHSC) scholarship physicians placed in Health Manpower Shortage Areas (HMSAs) under the private practice option (PRO) in fiscal year 1983 has exceeded NHSC expectations. As of June 15, 1983, approximately 75 percent are targeted to serve under the private practice option. Of the almost 200 dentists being placed this year, approximately 40 percent are expected to serve under the PRO. This response is due in large measure to NHSC efforts to increase the placement of private and non-Federal salaried health personnel in HMSAs so that limited Federal position resources can be reserved for areas of greatest need where manpower is not otherwise available.

The private practice option is a National Health Service Corps placement alternative that offers NHSC scholarship recipients an opportunity to fulfill all or part of their scholarship service obligations by engaging in the full-time private clinical practice of their professions in locations offered on the Authorized Health Manpower Shortage Area Opportunity List. This list provides information about the areas of greatest need that are available as placement locations. A private practitioner may provide health services in an area as a solo practitioner, as a member of a group practice, or as a salaried employee or member of any private or public entity directly providing health services.

The PPO is viewed as a cost-effective alternative to Federal employment, since, as private practitioners, these physicians are not on the Federal payroll. It is assumed that the requirement that they build their own practice in a chosen community may increase the likelihood of their remaining in the area after their service obligation has been met.

—BERNARDINE A. MOORE, Health Resources and Services Administration

Tenth Report of the National Heart, Lung, and Blood Advisory Council

A recently released report of the National Heart, Lung, and Blood Advisory Council describes the response of the Council and of the National Heart, Lung, and Blood Institute to opportunities for improvements in the prevention and treatment of heart, lung, and blood diseases. Three examples of these diseases are featured—heart attack, acute respiratory failure in the adult, and sickle cell anemia. Highlights of current research advances and opportunities for continued progress are discussed along with issues that currently affect scientific progress. A budget recommendation to meet national program goals is also presented.

Tenth Report of the National Heart, Lung, and Blood Advisory Council. NIH Publication No. 82–1127. Single copies available from Publications Section, Office of Information, National Heart, Lung, and Blood Institute, Bethesda, Md. 20205.

Study Finds Severe Shortages of Black Physicians and Other Health Professionals

"Severe shortages" exist in the nation's supply of minority physicians, dentists, pharmacists, and veterinarians and, according to a recently released study, the problem will worsen in the eighties and beyond unless remedial action is taken.

The study, funded by the Robert Wood Johnson Foundation, was conducted for the Association of Minority Health Professions Schools. Its authors point out that predictions of impending surpluses of physicians and other health professionals simply do not apply to blacks. "Wide disparities will continue between the ratio of black manpower to black population and white manpower to white population," they state.

Although blacks accounted for 11.7 percent of the U.S. population in 1980, they comprised only 2.6 percent of all medical doctors, 2.9 percent of dentists, 2.3 percent of pharmacists, and 1.6 percent of veterinarians, the authors of the study report.

In the preface to the study, Louis W. Sullivan, MD, president and dean of the Morehouse School of Medicine in Atlanta and president of the Association of Minority Health Professions Schools, notes that the low ratio of blacks to whites in medicine and other healing professions "is the legacy of decades of segregation and discrimination which until the late 1960s, resulted in unequal educational opportunity, including a relative lack of access to health professions education for black Americans."

The authors of the study point out that some gains by blacks in the health professions occurred in the 1970s when black student enrollment in medicine and other health professions increased in proportion to total enrollment. However, the increase peaked in the mid-1970s in medicine and dentistry and thereafter began to decline. Despite a slight increase in recent years, enrollment has not returned to the peak-year levels.

In the study report, the need for affordable financial aid is repeatedly cited as a crucial problem of black health professions students. It is noted that "recent changes in student financing (by the Federal Government) are increasing the already considerable economic barriers to black health professions students, who tend to come from families with lower socio-economic status than white students."

The report's authors also point out that the health status of black Americans—in spite of some gains since the advent of Medicaid, Medicare, and other Federal health programs—is significantly below that of the population as a whole.

According to the study, the private health professions institutions, for the most part, "have histories of financial fragility." "Because their missions have been to educate black professionals and because their student bodies come from low-income families, private endowments have never been a major source of financing for black health professions schools." Furthermore, most schools do not receive significant biomedical research grants, income from clinical fees is limited, and access to Veterans Administration acute-care facilities is restricted.

Blacks and the Health Professions in the 80's: A National Crisis and a Time for Action. Prepared by Ruth S. Hanft, Linda E. Fishman, and Wendy J. Evans. Washington, D.C., June 1983. Single copies available from the Association of Minority Health Professions Schools, 400 First St., NW, Suite 712, Washington, D.C. 20001 (Attention: Harley M. Dirks or Judi Phipps); telephone 202: 347-7878.

"Would You Say Your Health Is Excellent, Good, Fair or Poor?"

Responses to the question, "Compared to other persons of your age, would you say your health is excellent, good, fair or poor?" are reported in a recently issued publication of the National Center for Health Statistics.

The National Health Interview Survey (NHIS) data in the publication represent the respondent-assessed

health status of about 110,000 persons. The data were collected by the U.S. Bureau of the Census in 1978 in a nationwide survey of 41,000 sample homes. In the survey, interviewers asked family members to rate the health of themselves and of others in the family who were not at home or who were under 17 years of age.

The respondents' assessment of health was found to correlate closely with other measures of health status and use of services. To show as much detail as possible, the results of the survey are extensively cross-classified in the publication.

The data indicate that in general, as age increases, the proportion of persons who assess their health as fair or poor also increases. A higher proportion of females assess their health as fair or poor. Proportionately, more black persons are assessed in fair or poor health than are persons of other races. In general, the lower the family income, the higher the proportion of persons who are assessed to be in fair or poor health. The higher the educational level, the lower the proportion of respondents who consider themselves in fair or poor health. Widowed, divorced, and separated people consider themselves in fair or poor health in a higher proportion than married people.

Americans Assess Their Health: United States, 1978. Vital and Health Statistics, Series 10, No. 142. Department of Health and Human Services Publication No. (PHS) 83–1570. National Center for Health Statistics, Hyattsville, Md., March 1983. Available from U.S. Government Printing Office, Washington, D.C. 20402, GPO Stock No. 017–022–00820–3, price $4.75.

Women Using Dalkon Shield Are Warned to Consult Their Physicians

Findings of the Centers for Disease Control and the Food and Drug Administration indicate that women using the Dalkon Shield intrauterine device (IUD) have a 5-fold increase of pelvic inflammatory disease (PID), compared with women using other kinds of IUDs. Based on this information, Assistant Secretary for Health Dr. Edward N. Brandt, Jr., has warned women using a Dalkon Shield to contact their physicians concerning its removal. No change in contraceptive practice is recommended for women using other types of IUDs.

The increased risk for PID in Dalkon Shield users was revealed in a U.S. study of the contraceptive methods used by women who were hospitalized with PID. This was the first study large enough to determine the risks of PID associated with different IUD types.

The Dalkon Shield has not been marketed since 1974, when the manufacturer withdrew the product from distribution because of pregnancy-related infections. Women who had their current IUD inserted before 1975 and who are unaware of the specific type of IUD they are using are advised to consult their physicians. Because the Dalkon Shield was withdrawn from the market in 1974, this recommendation does not affect women whose IUD was inserted after that time.

Pamphlet Is Available on Causes, Treatment, and Prevention of Osteoporosis

The National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases has prepared a pamphlet that discusses the causes, treatment, prevention, symptoms, and research outlook for osteoporosis.

Osteoporosis is a condition in which bone tissue decreases, causing the bones to become more susceptible to fracture. The disorder is the principal underlying cause of bone fractures in older people, especially women. An estimated 2 to 5 million Americans seek medical help each year for some problem linked to osteoporosis, and upward of 15 million have osteoporosis to some degree.

Osteoporosis: Cause, Treatment, Prevention. NIH Publication No. 83–2226, April 1983. Single free copies available by writing Osteoporosis, NIADDK, Bldg. 31, Rm. 9A04, Bethesda, Md. 20205.

EDUCATION NOTES

Courses for professionals and specialists responsible for occupational health and safety. The Midwest Center for Occupational Health and Safety, a NIOSH (National Institute of Occupational Safety and Health)-sponsored Educational Resource Center in St. Paul, Minn., has announced the following courses:

The Occupational Health Nurse Confronts Chemical Abuse in the Workplace, Oct. 14–15, 1983, Rochester, Minn. This course is for practicing occupational health nurses and other interested nurses.

Comprehensive Occupational Health Nursing Review: Basic Theory and Update, Oct. 24–27, 1983, University of Minnesota, St. Paul. This course will provide a comprehensive review of the basic principles and theories of occupational health nursing, update students' knowledge of occupational health legislation and nursing standards, and help prepare practicing nurses for the certification examination of the American Board for Occupational Health Nurses. Tuition $375; continuing education units (CEUs) will be awarded.

Recognition of Accident Potential in the Workplace Due to Human Factors (NIOSH 512), Nov. 17–18, 1983, and May 16–17, 1984, St. Paul, Minn. This course is for personnel directors or managers, safety specialists, loss/cost-control representatives, engineers, and others with sufficient background to incorporate the training into their current safety responsibilities. It will enable students to identify the principal elements of accident causation and to apply methods for control. The participants will be able to recognize the human factors that help to predict the occurrence of accidents in the workplace. The course will include physiological and psychological factors, motivation and attitudes, group influences on behavior, individual characteristics, organizational impact on work, the man-machine interface, performance of a job analysis, and accident prevention.