 Fioride in Water Benefits Adults, NIDR Study Shows

The presence of fluoride in drinking water sharply inhibits dental decay in adults as well as children, the National Institute of Dental Research reports.

This conclusion is based on a study of two Colorado cities, conducted by Drs. A. L. Russell and Elias Elvove. Their findings were published in a recent issue of Public Health Reports.

The cities selected for investigation of caries rates in adults were Colorado Springs and Boulder, with the latter serving as control group. The water supply in Colorado Springs contains naturally about two and a half parts per million of fluoride, while community water in Boulder is virtually fluoride-free.

Total rates for decayed, missing, or filled permanent teeth, the NIDR scientists report, were about 60 percent lower in Colorado Springs than in Boulder for each of the five age groups from 20 to 44 years. This pattern of caries inhibition is essentially the same as that observed in children native to fluoride areas.

Drs. Russell and Elvove point out that there is nothing in their data to suggest that the caries rates in Colorado Springs will "catch up" with those for Boulder natives within a normal life span.

The findings for each person examined were included in the study if his residence and usage of the local water were unbroken for periods of not more than 60 days during the commonly accepted calcification and eruption periods of the permanent teeth. In addition, such persons must have spent more than half of their life in residence with use of the water in question.

Three New Health Films Ready for Release

Two films on mental health and one on cancer, produced with the cooperation of NIMH and NCI, are scheduled for release this month.

The mental health films, previewed recently in Wilson Hall, are "Fears of Children," sponsored by the Oklahoma State Mental Health Authority, and "Farewell to Childhood," sponsored by the North Carolina State Mental Health Authority. Both were produced under the supervision of the Mental Health Film Board and with the approval of NIMH. Film Board consultants included Dr. Joseph M. Bobbit of NIMH.

"Fears of Children" is the story of five-year-old Paul and the efforts of his parents to help him overcome such problems as fear of the dark. His difficulties are aggravated by an oversolicitous mother and an overdemanding father. The parents are given insight into Paul's problems by an understanding neighbor who faced and overcame the same problems in her own child.

"Farewell to Childhood" deals with problems confronting a 15-year-old girl whose parents fail to understand her need to grow up and achieve independence. A sympathetic school counselor helps the parents to understand basic adolescent needs.

"Uterine Cancer: The Problem of Early Diagnosis" is a film for the medical profession -- the fourth in a series of six produced by NCI and the American Cancer Society. It was shown to physicians for the first time early this month at an A.M.A. meeting in Los Angeles.

Microscopic examination of cells taken from the uterus or vagina is the technique described in the film that can detect cervical cancer in its earliest stage. The vaginal smear examination can be performed by any physician in his office.
One important aspect of caries research concerns the lactobacilli, organisms that ferment carbohydrates, producing in the process acids which can attack the teeth.

Investigations of these organisms are being conducted by NIDR's laboratory at the Eastman Dental Dispensary, Rochester, N.Y., under the direction of Mr. Morrison Rogosa and with the assistance of junior bacteriologist Murray Disraelly and technicians Alfred J. Beaman and Fred Moore.

Mr. Rogosa and his staff have recently developed a technique for selective isolation of lactobacilli in humans and animals. They have been able to determine in oral flora the distribution of normal lactobacilli -- which ones are present and the frequency with which they are present. The organisms have been classified and their metabolism and nutrition studied. New tests have been devised for application of nutritional data to the classification studies.

The Rochester laboratory has also developed a tube test for determining the acid produced by lactobacilli. Results obtained with this test correlate with those produced with the more complicated methods of the plate test. An attempt is being made to relate acidity to actual caries in a selected group of children.

Another project on which Mr. Rogosa and his group are working concerns improvement of methods for selecting and sampling experimental animals. An animal commonly used in dental research is the hamster, which is able to store sizable quantities of food in its buccal pouches. To obtain a "resting" sample, the animal must be deprived of food for a period in order to empty his storage pouches.

Past research has indicated that the type of organisms present in the hamster differ from those found in humans. An effort is being made at Rochester to relate findings in the hamster studies to the general caries problem.

Mr. Rogosa and his staff plan to study the total relationship of lactic acid organisms in both oral and intestinal environments through various caries-producing diets.
HAMS' KNIT NMI TO LIBERIAN INSTITUTE

For tropical disease investigators in Liberia, the tiny republic located on the hump of western Africa, communication with NIH can be a vexing problem. Air mail from the States ordinarily arrives in Africa, communication with NIH takes 160 miles over dusty roads. To deliver them to the Dallas airport for shipment to Washington meant a 160-mile trip.

The idea of sending specimens all the way to Washington for analysis by virus experts left some of the natives incredulous. To them the Nation's Capital was remote, inaccessible, far-removed from their way of life.

Ruth spent six weeks on the Texas assignment, repeatedly visiting about 250 families. Before joining NMI's staff in July 1950, she served 18 months with the PHS heart demonstration clinic in Boston, following completion of her academic work at the University of Minnesota, where she majored in public health nursing.

During the war she spent a year in North Africa and Italy, assigned to the Army as part of a PHS team. This was followed by a year with UNRA in a displaced persons' camp in Salzburg, Austria. Most of the DP's were Yugoslavs, who returned home after a few months, and White Russians, who were notably lacking in enthusiasm for repatriation.

Born in Lewistown, Mont., Ruth attended public schools there and in Minnesota. Her nurse's training was obtained at St. Mary's Hospital, Rochester, Minn.

On her present assignment, she is serving at Norfolk, where NMI is conducting an influenza vaccine study.

NIH's annual Hamster show, presented in late December in past years, has been pushed ahead to mid-February, according to Hamster chairman Robert H. Grant.

The change was made because of the difficulty of scheduling rehearsals during the busy weeks preceding the Christmas holidays. The show will be presented for three nights in Wilson Hall, February 13, 14, and 15.

Hamster script writers are taking a buoyant view of things this year, convinced the show will be better and zanier than ever. Comments as to skit content, however, are extremely guarded and about as informative as an official announcement of a new military weapon.

The show, apparently, will play fast and loose with the calendar, making the most of any alleged relationship between research and the element of time. (Editor's note: If the meaning is murky here, don't bother to re-read the sentence. Like Hamlet's tortured soul, Hamster pronouncements at this stage are not easily delineated.)

Field service for a public health nurse can be tough going at times. In Texas, for example, where NMI sent a team in recent months to study the outbreak of "Devil's Grip," it meant working long hours (16 hours a day, 7 days a week, was not unusual) under rugged conditions in remote rural areas.

Serving on that team was Ruth Anderson of the Section on Epidemiology in the Laboratory of Infectious Diseases. Her job as a public health nurse entailed visiting individual families to obtain epidemiologic data, illness histories, and blood and stool specimens and throat washings for laboratory study.

The community under study was Telephone, located north of Dallas near the Red River. How the town came by its odd name -- there are no telephones in Telephone -- even local residents couldn't explain.

In that area, field service literally meant field service. Many blood specimens could only be obtained by going into the cotton patches and taking them on the spot.

To get ice for packing specimens, Ruth said, meant driving 80 miles over dusty roads. To deliver them to the Dallas airport for shipment to Washington meant a 160-mile trip.

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PHS PLANNING COUNCIL DISTRIBUTES REPORT

The second annual report of the Research Planning Council, PHS, has just been released.

Covering fiscal year 1950, the 82-page, fact-crammed report summarizes the intramural research effort of the entire Public Health Service. It was compiled by NIH's Research Planning Branch, which serves in a staff capacity to evaluate PHS research activities as they relate to the Service's total program.

The Research Planning Council is made up of one representative from each of the PHS bureaus and the Office of the Surgeon General. The fifth member is the Director of the Research Planning Branch, Mr. Charles V. Kidd, who serves as the Council's Executive Secretary. He is assisted by Mr. Irving Ladimer.

The Council's report shows that PHS expenditures for intramural research in fiscal 1950 totaled $11,180,376. This represents about one-sixth of all PHS expenditures for direct operations. It compares with a $13,000,000 appropriation for extramural research grants.

Broken down by bureaus, the 1950 intramural figures show that NIH disbursed $6,687,086, or 60 percent of total research expenditures. The Bureau of State Services was next with $3,992,816, or 36 percent. The Bureau of Medical Services and the Office of the Surgeon General together accounted for the remaining 4 percent, or $500,472.

In the Bureau of State Services, CDC disbursed $1,918,865, or 48 percent of the bureau total. All research expenditures in the Office of the Surgeon General were made by the Division of Public Health Methods, while in the Bureau of Medical Services 59 percent of research expenditures were made by U.S. P. H. S. Hospitals.

Analyzed by types of research, the $11 million expended within PHS in 1950 shows laboratory investigations accounted for 53 percent of the total; laboratory-field studies, 24 percent; clinical investigations, 11 percent; field investigations, 6 percent; administrative and general policy formulation, 4 percent; and health and vital statistics, 2 percent.

PHS EXPENDITURES FOR INTRAMURAL RESEARCH 1950

Every major research organization of PHS, the report shows, undertakes a substantial volume of collaborative research with at least one other Service research unit. Fourteen percent of total expenditures for intramural research in 1950 was used to finance about 60 jointly conducted or planned projects. In addition to intra-Service collaboration, PHS expended 29 percent of its research budget on projects involving various degrees and kinds of collaborative arrangements with research organizations outside PHS.

Approximately half of the intramural research program for 1950 may be considered to have direct or indirect benefits and implications for national defense.

The $11 million research operation within PHS in 1950 was staffed by 2,300 persons, about 45 percent of whom were professional workers. The balance were administrative and technical staff.

AWARDS CEREMONY

Approximately 80 NIH employees who have completed 20 and 30 years of Government service will be presented award certificates by Dr. W. H. Sebrell, Jr., Director of NIH, in a ceremony scheduled for 12 noon in Wilson Hall, Friday, December 14. Three recipients of 40-year awards, to be given a day earlier at an FSA ceremony downtown, will also be present for the occasion.

FIRE PROTECTION AT NIH IS STRENGTHENED

Increasingly important as NIH expands and new buildings approach completion is the strategic job of fire protection and prevention. This activity is in charge of Fire Marshal Ernest A. Davis of the Buildings Management Branch, who is responsible for training and directing the Emergency Brigade, made up of five volunteers from the Buildings Management Branch.

During the day the Emergency Brigade and available members of the guard force respond to all emergency alarms, with the help of the operating engineer, electrician, and plumber in the area affected. At night, the guards and all operating engineers on duty respond to alarms.

A recently acquired ton-and-a-half pick-up truck is now being outfitted with fire fighting, first aid, and rescue equipment, as well as equipment for handling disposal of hazardous chemicals. Training in the proper use of this equipment, Mr. Davis said, will shortly get under way for the Emergency Brigade and building guards. All guards have already been trained in first aid by Dr. John Lynch of Employees Health Service.

Cooperating with Fire Marshal Davis in strengthening fire protection at NIH and identifying potential fire hazards is Safety Officer James B. Black. In recent weeks they have presented demonstrations in the various buildings of fire-fighting equipment to help develop fire consciousness among employees.

BIOLOGY FOR STUDENTS

A third request has been received by the Saturday Review of Literature to reprint the article, "Staying Alive," by Dr. R. R. Spencer of NCI, which S.R.L. published in a recent issue.

The request was made by two faculty members of Schenectady's Union College, who are editing an anthology of readings for college students, scheduled for spring publication and tentatively titled "Challenges to Thought."

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