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Dr. G. D. C. Thompson, Director of the Utah State Department of Health, and Surgeon General Luther L. Terry of the U. S. Public Health Service, jointly announced today that a study of dental, eye and thyroid characteristics of 2,000 public school students in Washington County, Utah, will be conducted during September.

The study is part of a long-term investigation of people residing in several isolated areas near the Nevada nuclear test site at Las Vegas, which seeks to determine whether any physical effects have occurred which might be associated with their proximity to the test site.

Tissues that might be expected to show visible effects if damaged include those in which a limited number of cells comprise the structure. A defect in one cell or a few cells would thus be apparent in the appearance of the tissue. The teeth and the iris of the eyes represent structures of this type. In addition, they are visible for rapid examination without discomfort to the subject.

The thyroids of an approximately equal number of students in Safford, Arizona, also will be examined as a "control" for comparison with the thyroid observations made on the Utah students. Safford is several hundred miles farther away from the test site, but otherwise has many environmental and other factors similar to the Utah study area.

The examinations which begin on September 17 at St. George, Utah, will be conducted by the Public Health Service's National Institute of Dental Research, National Institute of Arthritis and Metabolic Diseases and Division

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Radiological Health. The Utah State Department of Health is cooperating in all phases of the total study.

PHS dentists will examine the Washington County, Utah, students for tooth, bone, and soft tissue abnormalities possibly attributable to radiation exposure. PHS physicians will independently examine each youngster by external observation for eye and thyroid abnormalities. Any students in whom findings indicate a possible need for follow-up will be referred by the State Health Department to private physicians or dentists.

In a fourth procedure not related to possible effects of radiation exposure, scientists will examine student ability to taste and smell a number of chemicals. The ability to taste or smell certain chemicals has been known for many years to be under hereditary control. It also has been known that the ability to taste the compound phenylthiourea is related to glaucoma, decay rates in deciduous teeth, and goiter. The nature of these physiological associations will be a subject of the investigation. The ability to smell specific odors may possibly represent a new set of genetic patterns similar to the human blood groups. If this is proved to be the case, it would be of great value in the study of human genetics.

The St. George, Utah, dental, eye and thyroid examinations this September are an additional phase of a long-term investigation being conducted jointly by the State Health Departments of Utah and Nevada and the Division of Radiological Health of the Public Health Service. This study, which began in 1959 as an examination of leukemia deaths occurring in Nevada and Utah since 1950, was expanded in 1963 to include thyroid and bone cancer and congenital malformations.

Note to correspondents: This announcement is being released simultaneously in Salt Lake City, Utah, and in Washington, D. C.