

Cancer in Utah

Thyroid

<i>Summary</i>	Male		Female	
	Utah 1996-2000	US 1996-99	Utah 1996-2000	US 1996-99
Average annual age-adjusted incidence rates*	4.2	3.7	12.4	9.9
Rank among cancer incidence rates	18	20	8	9
Average annual number of new cases	34	4,560	115	13,810
Percent of all new cancer cases	1.0 %	0.7 %	4.0 %	2.3 %
Lifetime risk of this cancer (from birth to 79 years)	1 in 263	1 in 297	1 in 97	1 in 120
Average annual age-adjusted mortality rates*	0.5	0.4	0.5	0.5
Rank among cancer mortality rates	<20	<20	<20	<20
Average annual number of deaths	3	475	4	732
Percent of all cancer deaths	0.3 %	0.2 %	0.4 %	0.3 %
* Rates per 100,000 and standardized to the 2000 U.S. population				

Thyroid tumors are relatively rare, though they are among the most common neoplasms diagnosed in adolescents and young adults. The age-adjusted incidence rate for thyroid cancer in females is approximately three times higher than in males. In men, age-specific incidence rates increase gradually and steadily with age until the sixth decade of life. In contrast, incidence rates in women increase dramatically during adolescence and young adulthood, peak in the sixth and seventh decades of life, then decline.

Exposure to radiation has been associated with an increased risk of developing thyroid cancer. An elevated risk of this disease has been observed in atomic bomb survivors, those exposed to fallout from nuclear weapons testing, and individuals who received radiation treatment for certain medical conditions when they were young. Aside from these unique exposures, however, the association between other sources of radiation exposure and thyroid cancer is less clear.

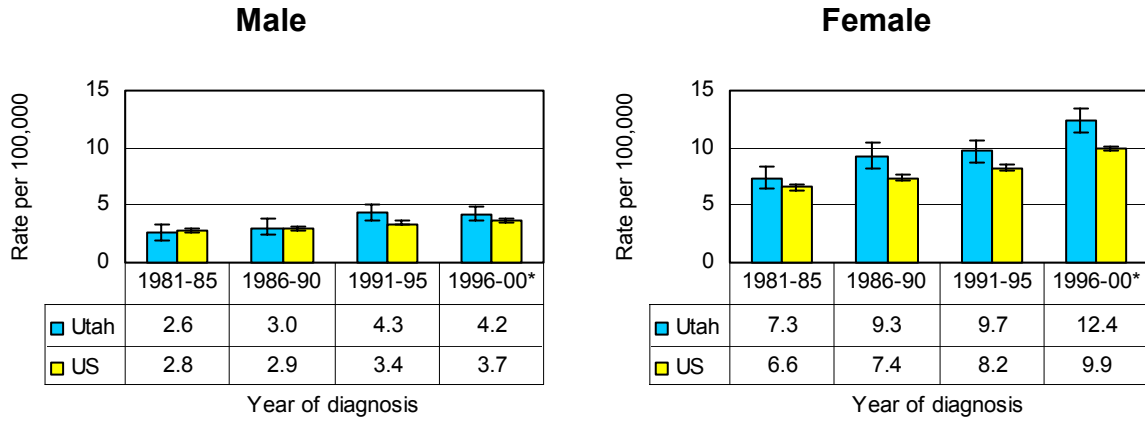
Hormonal factors may play an important role in the development of thyroid cancer. The growth and function of the thyroid is largely controlled by the activity of the pituitary hormone, thyroid stimulating hormone (TSH). TSH has been shown to enhance the growth of some thyroid tumor cells, and factors that influence the production of TSH may similarly influence the development of thyroid cancer. Ovarian hormones reduce levels of active thyroid hormone and thereby enhance production of TSH. This may explain the higher rates of thyroid cancer in women than in men, and the rapid increase in rates in women following menarche. Further, in studies of exposure to radiation from external sources, females were more likely to have developed thyroid cancer than males even when they received comparable doses. Thus, it is possible that different hormonal and exogenous factors interact to influence an individual's risk for this disease.

Exposure to external radiation accounts for only a small percentage of thyroid tumors, and the remaining causes of this disease are insufficiently understood to allow for the implementation of preventive measures.

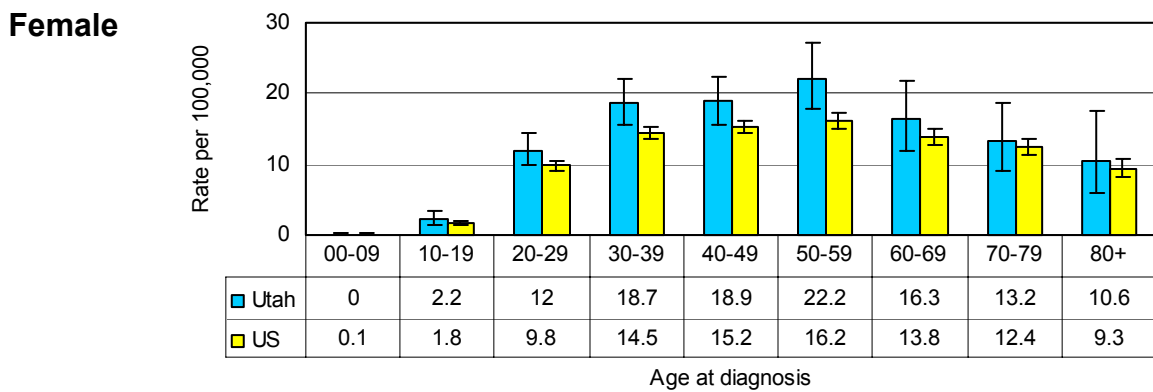
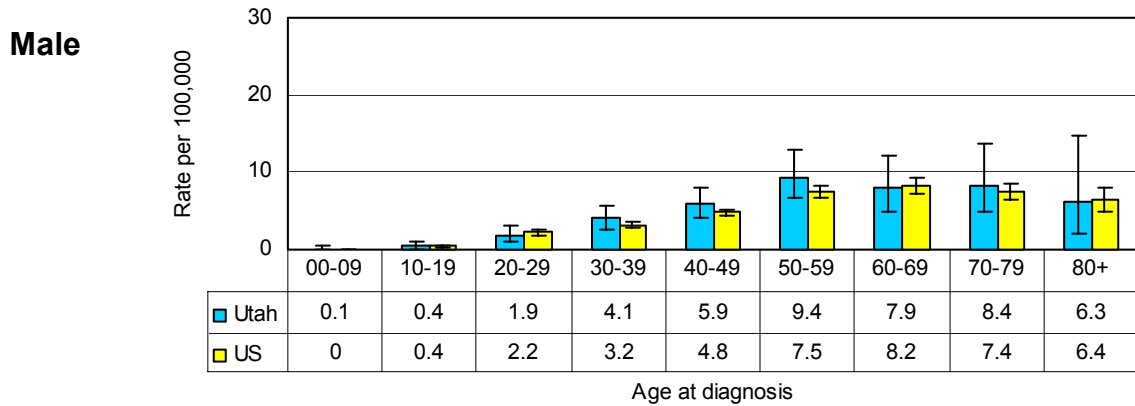
Cancer in Utah

Thyroid	Incidence
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Average annual age-adjusted incidence rates per 100,000 (US 2000 standard) by 5-year time period and sex, 1981-2000



Average annual age-specific incidence rates per 100,000 by sex, 1996-2000

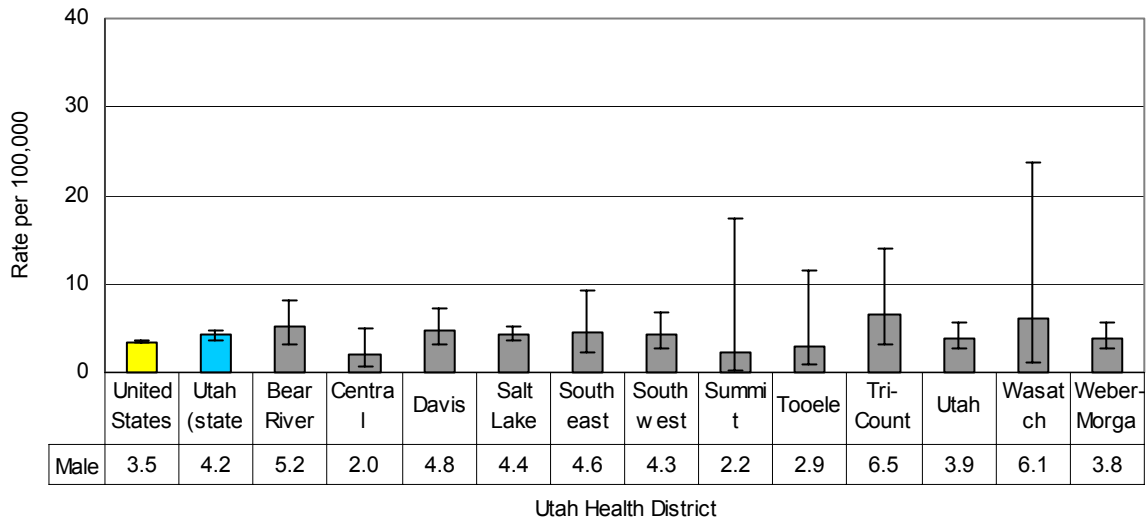


Cancer in Utah

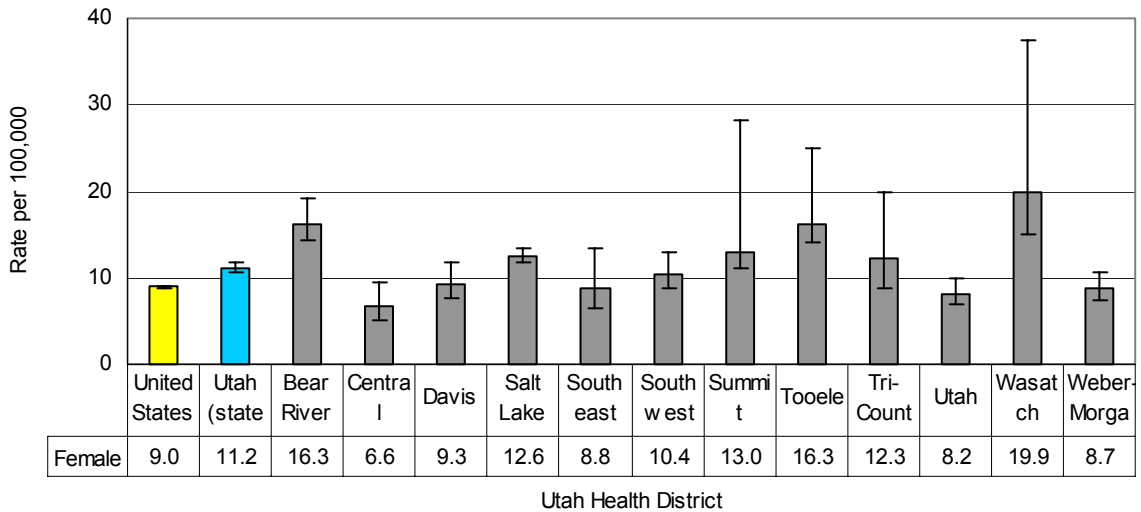
Thyroid	Incidence
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Average annual age-adjusted incidence rates per 100,000 (US 2000 standard) for twelve Utah Health Districts, by sex, for the time period 1991-2000, with rates from Utah (statewide) and the United States for comparison

Male



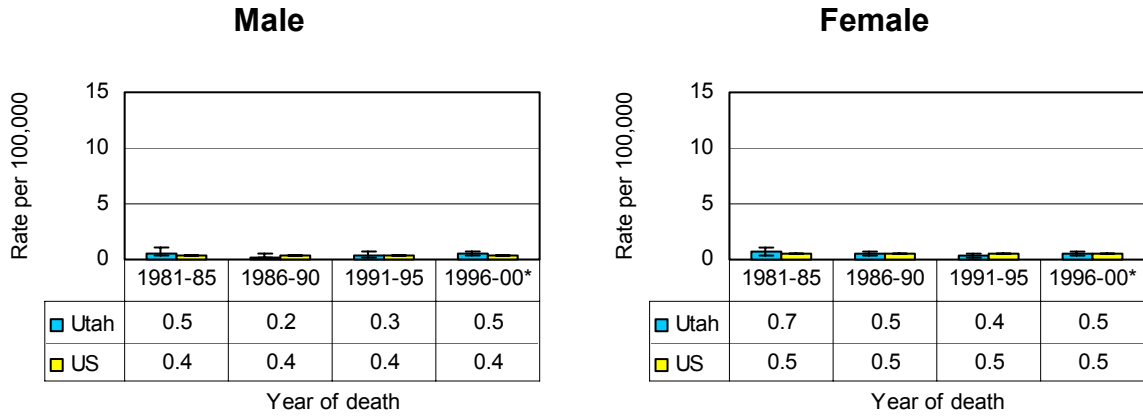
Female



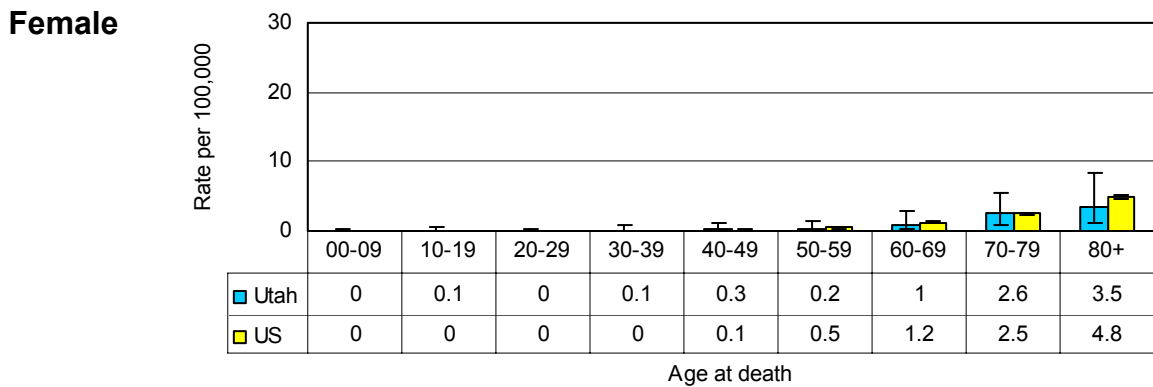
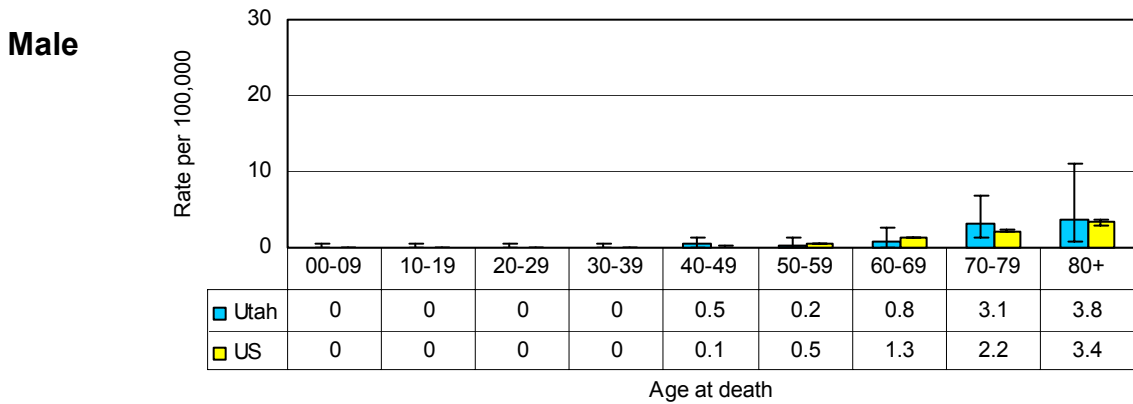
Cancer in Utah

Thyroid	Mortality
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Average annual age-adjusted mortality rates per 100,000 (US 2000 standard) by 5-year time period and sex, 1981-2000



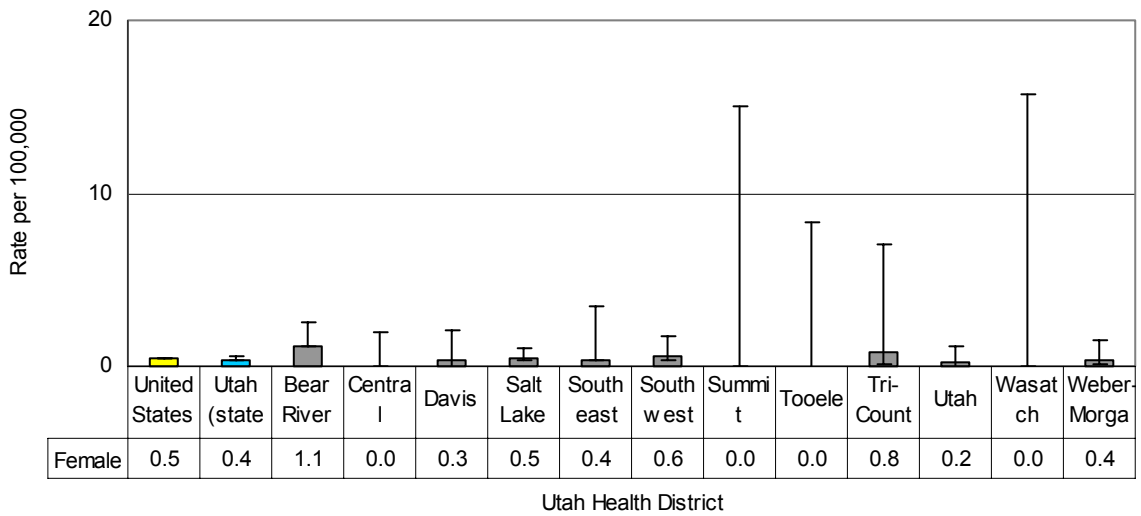
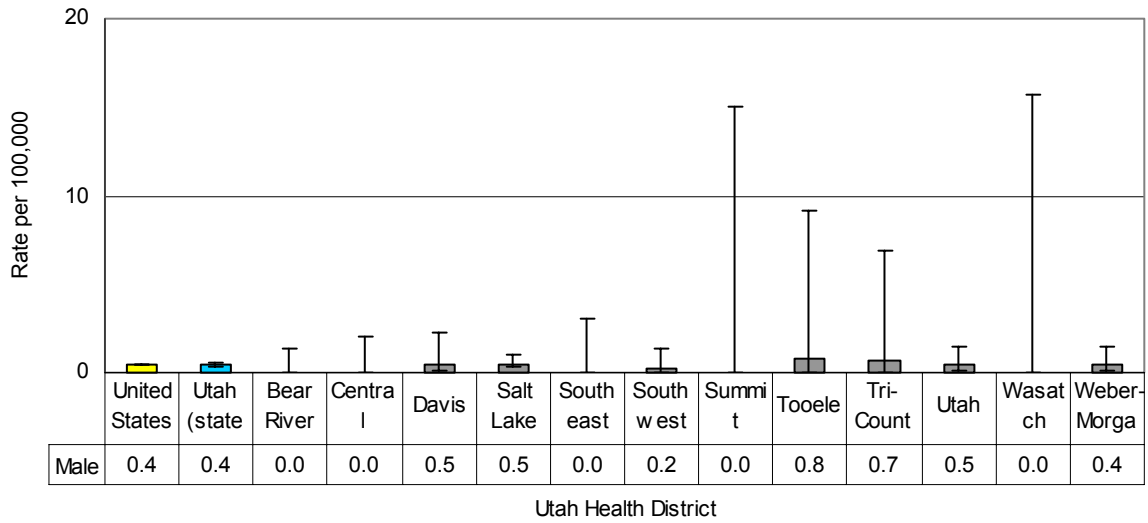
Average annual age-specific mortality rates per 100,000 by sex, 1996-2000



Cancer in Utah

Thyroid	Mortality
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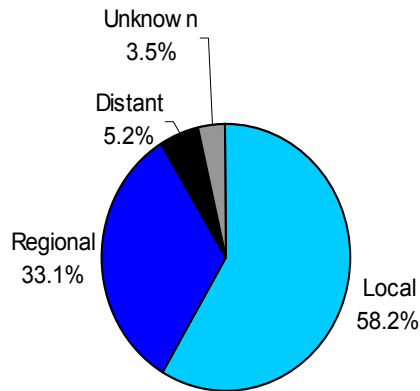
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Thyroid Stage and Survival

Stage of disease at diagnosis:
Utah residents diagnosed 1996-2000



5-year relative survival by stage:
Utah residents diagnosed 1991-95

