

THYROID
BOTH SEXES

TABLE 4A. -- Characteristics of persons reported to the Danish Cancer Registry with an initial cancer of the thyroid gland, 1943-80+

Category	Male	Female	Total
No. with first primary cancer*	584	1,351	1,935
No. who developed a second primary cancer	28	50	78
Average age at diagnosis of first cancer, yr	58	59	59
Average yr of diagnosis of first cancer	1966	1965	1965
Person-yr of follow-up	2,766	7,994	10,760
Average follow-up, yr	4.7	5.9	5.6
Percent given radiotherapy for first cancer	54	49	50

+ ICD-7 code = 194.

* Number excludes all persons who survived less than 2 mo after the diagnosis of their first primary cancer or who developed a simultaneous cancer during this period. First primary cancers diagnosed only at autopsy or by death certificate are also excluded as are in situ cancers.

TABLE 4B. -- Microscopic confirmation among persons who developed second primary cancers after an initial cancer of the thyroid gland in Denmark, 1943-80

Microscopically confirmed	No.	Percent+
Both first and second cancers	64	82.1
Only the first cancer	10	12.8
Only the second cancer	4	5.1
Neither first nor second cancer	0	0.0
Total second primary cancers	78	100.0

+ Minor discrepancies between table entries, and row and column sums in this and subsequent tables are due to rounding.

THYROID
BOTH SEXES

TABLE 4C. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among males and females in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr					
	No. starting interval	1,935		1,201			696			419			1,935		
Person-yr in interval	1,494		3,562			2,663			3,041			10,760			
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
All second cancers	12	11.31	1.1	24	24.79	1.0	24	19.43	1.2	18	25.43	0.7	78	80.95	1.0
All excluding site of initial cancer	12	11.25	1.1	24	24.64	1.0	24	19.31	1.2	18	25.28	0.7	78	80.47	1.0
Buccal cavity, pharynx	0	0.23	0.0	0	0.48	0.0	1	0.35	2.9	1	0.43	2.3	2	1.50	1.3
Lip	0	0.08	0.0	0	0.18	0.0	0	0.12	0.0	1	0.14	7.1	1	0.52	1.9
Tongue	0	0.03	0.0	0	0.06	0.0	0	0.04	0.0	0	0.05	0.0	0	0.18	0.0
Salivary gland	0	0.03	0.0	0	0.07	0.0	0	0.05	0.0	0	0.05	0.0	0	0.22	0.0
Gum, other mouth	0	0.05	0.0	0	0.10	0.0	1	0.07	14.3	0	0.11	0.0	1	0.33	3.0
Pharynx	0	0.04	0.0	0	0.08	0.0	0	0.06	0.0	0	0.08	0.0	0	0.25	0.0
Digestive system	4	3.97	1.0	12	8.25	1.5	11	6.38	1.7	2	8.00	0.3*	29	26.61	1.1
Esophagus	0	0.13	0.0	0	0.27	0.0	1	0.20	5.0	0	0.24	0.0	1	0.84	1.2
Stomach	1	1.13	0.9	0	2.18	0.0	4	1.57	2.5	0	1.69	0.0	5	6.56	0.8
Colon	1	1.09	0.9	7	2.36	3.0*	3	1.93	1.6	1	2.60	0.4	12	7.99	1.5
Rectum	2	0.77	2.6	3	1.61	1.9	0	1.22	0.0	0	1.53	0.0	5	5.13	1.0
Liver, biliary	0	0.29	0.0	1	0.64	1.6	2	0.53	3.8	1	0.73	1.4	4	2.18	1.8
Pancreas	0	0.40	0.0	1	0.88	1.1	0	0.70	0.0	0	0.96	0.0	1	2.95	0.3
Respiratory system	0	1.18	0.0	0	2.65	0.0	2	1.96	1.0	2	2.63	0.8	4	8.42	0.5
Nasal cavities, sinuses	0	0.02	0.0	0	0.05	0.0	0	0.04	0.0	0	0.05	0.0	0	0.15	0.0
Larynx	0	0.08	0.0	0	0.17	0.0	1	0.11	9.1	0	0.15	0.0	1	0.49	2.0
Trachea, bronchus, lung	0	1.02	0.0	0	2.30	0.0	1	1.70	0.6	2	2.31	0.9	3	7.32	0.4
Female breast	1	1.55	0.6	4	3.56	1.1	1	3.03	0.3	5	4.30	1.2	11	12.45	0.9
Female genital tract	1	1.45	0.7	2	3.40	0.6	2	2.80	0.7	2	3.77	0.5	7	11.43	0.6
Cervix uteri	0	0.51	0.0	2	1.26	1.6	2	1.03	1.9	1	1.24	0.8	5	4.04	1.2
Corpus uteri	1	0.39	2.5	0	0.90	0.0	0	0.75	0.0	0	1.10	0.0	1	3.15	0.3
Uterus, NOS	0	0.03	0.0	0	0.06	0.0	0	0.05	0.0	0	0.06	0.0	0	0.20	0.0
Ovary, fallopian tubes	0	0.42	0.0	0	0.98	0.0	0	0.81	0.0	1	1.14	0.9	1	3.35	0.3
Prostate gland	0	0.49	0.0	1	1.06	0.9	1	0.72	1.4	1	0.81	1.2	3	3.07	1.0
Testis	0	0.03	0.0	0	0.06	0.0	0	0.04	0.0	0	0.04	0.0	0	0.18	0.0
Kidney, renal pelvis, ureter	0	0.32	0.0	1	0.70	1.4	2	0.55	3.6	1	0.74	1.4	4	2.33	1.7
Bladder, other urinary	0	0.51	0.0	1	1.14	0.9	0	0.86	0.0	0	1.14	0.0	1	3.66	0.3
Melanoma of the skin	0	0.14	0.0	0	0.35	0.0	0	0.29	0.0	0	0.41	0.0	0	1.19	0.0
Eye	0	0.03	0.0	0	0.08	0.0	0	0.06	0.0	0	0.07	0.0	0	0.23	0.0
Brain, central nervous system	2	0.23	8.7	1	0.52	1.9	0	0.40	0.0	2	0.54	3.7	5	1.67	3.0
Thyroid gland	0	0.06	0.0	0	0.15	0.0	0	0.12	0.0	0	0.15	0.0	0	0.48	0.0
Bone	0	0.02	0.0	0	0.05	0.0	0	0.03	0.0	0	0.04	0.0	0	0.14	0.0
Connective tissue	1	0.04	25.0	0	0.09	0.0	0	0.06	0.0	0	0.08	0.0	1	0.26	3.8
Lymphatic, hematopoietic system	3	0.65	4.6	2	1.44	1.4	4	1.13	3.5	0	1.47	0.0	9	4.69	1.9
Non-Hodgkin's lymphoma	3	0.18	16.7*	1	0.41	2.4	2	0.32	6.3	0	0.44	0.0	6	1.35	4.4*
Hodgkin's disease	0	0.05	0.0	0	0.13	0.0	0	0.09	0.0	0	0.11	0.0	0	0.39	0.0
Multiple myeloma	0	0.13	0.0	0	0.27	0.0	0	0.22	0.0	0	0.29	0.0	0	0.90	0.0
Leukemias	0	0.28	0.0	1	0.62	1.6	2	0.48	4.2	0	0.63	0.0	3	2.01	1.5
Chronic lymphocytic	0	0.14	0.0	0	0.29	0.0	1	0.22	4.5	0	0.28	0.0	1	0.93	1.1
Acute nonlymphocytic	0	0.08	0.0	0	0.17	0.0	1	0.14	7.1	0	0.21	0.0	1	0.60	1.7

+ ICD-7 code = 194.

* P<.05.

THYROID
MALES

TABLE 4D. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among males in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis														
	<1 yr			1-4 yr			5-9 yr			10+ yr			Total		
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	584			364			188			98			584		
Person-yr in interval	454			1,034			662			616			2,766		
All second cancers	2	3.89	0.5	9	8.35	1.1	10	5.52	1.8	7	6.09	1.1	28	23.85	1.2
All excluding site of initial cancer	2	3.88	0.5	9	8.32	1.1	10	5.50	1.8	7	6.07	1.2	28	23.77	1.2
Buccal cavity, pharynx	0	0.13	0.0	0	0.27	0.0	0	0.17	0.0	1	0.18	5.5	1	0.76	1.3
Lip	0	0.07	0.0	0	0.15	0.0	0	0.09	0.0	1	0.10	10.5	1	0.41	2.5
Tongue	0	0.01	0.0	0	0.02	0.0	0	0.01	0.0	0	0.01	0.0	0	0.05	0.0
Salivary gland	0	0.01	0.0	0	0.02	0.0	0	0.01	0.0	0	0.01	0.0	0	0.06	0.0
Gum, other mouth	0	0.02	0.0	0	0.04	0.0	0	0.02	0.0	0	0.03	0.0	0	0.11	0.0
Pharynx	0	0.02	0.0	0	0.04	0.0	0	0.03	0.0	0	0.03	0.0	0	0.12	0.0
Digestive system	1	1.44	0.7	6	2.97	2.0	5	1.93	2.6	0	1.99	0.0	12	8.34	1.4
Esophagus	0	0.06	0.0	0	0.13	0.0	0	0.08	0.0	0	0.08	0.0	0	0.35	0.0
Stomach	0	0.46	0.0	0	0.88	0.0	2	0.56	3.6	0	0.51	0.0	2	2.40	0.8
Colon	1	0.32	3.1	5	0.69	7.2*	2	0.46	4.3	0	0.51	0.0	8	1.99	4.0*
Rectum	0	0.32	0.0	1	0.67	1.5	0	0.43	0.0	0	0.45	0.0	1	1.87	0.5
Liver, biliary	0	0.08	0.0	0	0.17	0.0	0	0.12	0.0	0	0.14	0.0	0	0.50	0.0
Pancreas	0	0.15	0.0	0	0.33	0.0	0	0.22	0.0	0	0.25	0.0	0	0.96	0.0
Respiratory system	0	0.82	0.0	0	1.81	0.0	2	1.21	1.6	1	1.45	0.7	3	5.29	0.6
Nasal cavities, sinuses	0	0.01	0.0	0	0.02	0.0	0	0.02	0.0	0	0.02	0.0	0	0.07	0.0
Larynx	0	0.06	0.0	0	0.13	0.0	1	0.08	12.1	0	0.10	0.0	1	0.36	2.7
Trachea, bronchus, lung	0	0.71	0.0	0	1.59	0.0	1	1.06	0.9	1	1.28	0.8	2	4.64	0.4
Prostate gland	0	0.49	0.0	1	1.06	0.9	1	0.72	1.4	1	0.81	1.2	3	3.07	1.0
Testis	0	0.03	0.0	0	0.06	0.0	0	0.04	0.0	0	0.04	0.0	0	0.18	0.0
Kidney, renal pelvis, ureter	0	0.13	0.0	0	0.28	0.0	1	0.19	5.2	1	0.21	4.7	2	0.82	2.5
Bladder, other urinary	0	0.31	0.0	0	0.70	0.0	0	0.47	0.0	0	0.56	0.0	0	2.05	0.0
Melanoma of the skin	0	0.04	0.0	0	0.09	0.0	0	0.06	0.0	0	0.06	0.0	0	0.24	0.0
Eye	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.02	0.0	0	0.07	0.0
Brain, central nervous system	0	0.08	0.0	1	0.17	5.9	0	0.11	0.0	1	0.12	8.5	2	0.47	4.2
Thyroid gland	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.02	0.0	0	0.08	0.0
Bone	0	0.01	0.0	0	0.02	0.0	0	0.01	0.0	0	0.01	0.0	0	0.05	0.0
Connective tissue	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.02	0.0	0	0.08	0.0
Lymphatic, hematopoietic system	1	0.26	3.8	1	0.57	1.8	1	0.38	2.6	0	0.41	0.0	3	1.62	1.9
Non-Hodgkin's lymphoma	1	0.07	14.7	1	0.15	6.7	0	0.10	0.0	0	0.11	0.0	2	0.43	4.7
Hodgkin's disease	0	0.02	0.0	0	0.05	0.0	0	0.03	0.0	0	0.03	0.0	0	0.14	0.0
Multiple myeloma	0	0.05	0.0	0	0.10	0.0	0	0.07	0.0	0	0.08	0.0	0	0.30	0.0
Leukemias	0	0.12	0.0	0	0.26	0.0	1	0.17	5.8	0	0.19	0.0	1	0.74	1.4
Chronic lymphocytic	0	0.07	0.0	0	0.14	0.0	1	0.09	10.8	0	0.10	0.0	1	0.40	2.5
Acute nonlymphocytic	0	0.03	0.0	0	0.06	0.0	0	0.04	0.0	0	0.05	0.0	0	0.19	0.0

+ ICD-7 code = 194.

* P<.05.

THYROID
FEMALES

TABLE 4E. -- Observed (O) and expected (E) numbers of second primary cancers by years after diagnosis of an initial cancer of the thyroid gland among females in Denmark, 1943-80+

Second primary cancer site	Yr after first primary cancer diagnosis												Total		
	<1 yr			1-4 yr			5-9 yr			10+ yr			O	E	
	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E	O	E	O/E
No. starting interval	1,351			837			508			321			1,351		
Person-yr in interval	1,040			2,528			2,001			2,425			7,994		
All second cancers	10	7.42	1.3	15	16.44	0.9	14	13.91	1.0	11	19.34	0.6	50	57.10	0.9
All excluding site of initial cancer	10	7.37	1.4	15	16.32	0.9	14	13.81	1.0	11	19.21	0.6	50	56.70	0.9
Buccal cavity, pharynx	0	0.10	0.0	0	0.21	0.0	1	0.18	5.6	0	0.25	0.0	1	0.74	1.3
Lip	0	0.01	0.0	0	0.03	0.0	0	0.03	0.0	0	0.04	0.0	0	0.11	0.0
Tongue	0	0.02	0.0	0	0.04	0.0	0	0.03	0.0	0	0.04	0.0	0	0.13	0.0
Salivary gland	0	0.02	0.0	0	0.05	0.0	0	0.04	0.0	0	0.04	0.0	0	0.16	0.0
Gum, other mouth	0	0.03	0.0	0	0.06	0.0	1	0.05	19.4	0	0.08	0.0	1	0.22	4.6
Pharynx	0	0.02	0.0	0	0.04	0.0	0	0.03	0.0	0	0.05	0.0	0	0.13	0.0
Digestive system	3	2.53	1.2	6	5.28	1.1	6	4.45	1.3	2	6.01	0.3	17	18.27	0.9
Esophagus	0	0.07	0.0	0	0.14	0.0	1	0.12	8.3	0	0.16	0.0	1	0.49	2.0
Stomach	1	0.67	1.5	0	1.30	0.0	2	1.01	2.0	0	1.18	0.0	3	4.16	0.7
Colon	0	0.77	0.0	2	1.67	1.2	1	1.47	0.7	1	2.09	0.5	4	6.00	0.7
Rectum	2	0.45	4.5	2	0.94	2.1	0	0.79	0.0	0	1.08	0.0	4	3.26	1.2
Liver, biliary	0	0.21	0.0	1	0.47	2.1	2	0.41	4.8	1	0.59	1.7	4	1.68	2.4
Pancreas	0	0.25	0.0	1	0.55	1.8	0	0.48	0.0	0	0.71	0.0	1	1.99	0.5
Respiratory system	0	0.36	0.0	0	0.84	0.0	0	0.75	0.0	1	1.18	0.8	1	3.13	0.3
Nasal cavities, sinuses	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.03	0.0	0	0.08	0.0
Larynx	0	0.02	0.0	0	0.04	0.0	0	0.03	0.0	0	0.05	0.0	0	0.13	0.0
Trachea, bronchus, lung	0	0.31	0.0	0	0.71	0.0	0	0.64	0.0	1	1.03	1.0	1	2.68	0.4
Female breast	1	1.55	0.6	4	3.56	1.1	1	3.03	0.3	5	4.30	1.2	11	12.45	0.9
Female genital tract	1	1.45	0.7	2	3.40	0.6	2	2.80	0.7	2	3.77	0.5	7	11.43	0.6
Cervix uteri	0	0.51	0.0	2	1.26	1.6	2	1.03	1.9	1	1.24	0.8	5	4.04	1.2
Corpus uteri	1	0.39	2.5	0	0.90	0.0	0	0.75	0.0	0	1.10	0.0	1	3.15	0.3
Uterus, NOS	0	0.03	0.0	0	0.06	0.0	0	0.05	0.0	0	0.06	0.0	0	0.20	0.0
Ovary, fallopian tubes	0	0.42	0.0	0	0.98	0.0	0	0.81	0.0	1	1.14	0.9	1	3.35	0.3
Kidney, renal pelvis, ureter	0	0.19	0.0	1	0.42	2.4	1	0.36	2.7	0	0.53	0.0	2	1.51	1.3
Bladder, other urinary	0	0.20	0.0	1	0.44	2.3	0	0.39	0.0	0	0.58	0.0	1	1.61	0.6
Melanoma of the skin	0	0.10	0.0	0	0.26	0.0	0	0.23	0.0	0	0.35	0.0	0	0.95	0.0
Eye	0	0.02	0.0	0	0.05	0.0	0	0.04	0.0	0	0.05	0.0	0	0.16	0.0
Brain, central nervous system	2	0.15	13.8*	0	0.35	0.0	0	0.29	0.0	1	0.42	2.4	3	1.20	2.5
Thyroid gland	0	0.05	0.0	0	0.12	0.0	0	0.10	0.0	0	0.13	0.0	0	0.40	0.0
Bone	0	0.01	0.0	0	0.03	0.0	0	0.02	0.0	0	0.03	0.0	0	0.09	0.0
Connective tissue	1	0.03	38.4	0	0.06	0.0	0	0.04	0.0	0	0.06	0.0	1	0.18	5.4
Lymphatic, hematopoietic system	2	0.39	5.1	1	0.87	1.1	3	0.75	4.0	0	1.06	0.0	6	3.07	2.0
Non-Hodgkin's lymphoma	2	0.11	17.6*	0	0.26	0.0	2	0.22	8.9*	0	0.33	0.0	4	0.92	4.3*
Hodgkin's disease	0	0.03	0.0	0	0.08	0.0	0	0.06	0.0	0	0.08	0.0	0	0.25	0.0
Multiple myeloma	0	0.08	0.0	0	0.17	0.0	0	0.15	0.0	0	0.21	0.0	0	0.60	0.0
Leukemias	0	0.16	0.0	1	0.36	2.8	1	0.31	3.2	0	0.44	0.0	2	1.27	1.6
Chronic lymphocytic	0	0.07	0.0	0	0.15	0.0	0	0.13	0.0	0	0.18	0.0	0	0.53	0.0
Acute nonlymphocytic	0	0.05	0.0	0	0.11	0.0	1	0.10	10.0	0	0.16	0.0	1	0.41	2.4

+ ICD-7 code = 194.

* P<.05.