

S1 Table. Age-standardized incidence rates for Korean adolescents and young adults according to the time period of cancer diagnosis with annual percent change: male and female

Site group	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	APC	p-value
All cancers	414.8	400.7	437.5	433.2	485.0	512.4	536.0	576.8	631.1	711.8	780.5	841.3	901.6	931.8	942.2	842.3	768.2	820.4	9.0	*
All cancers (excluding thyroid carcinoma)	367.1	354.6	375.8	362.2	383.9	381.6	387.7	392.8	402.8	412.2	423.9	431.3	447.4	438.3	438.1	461.1	446.8	463.3	5.7	-
1 Leukemias	25.5	26.1	28.9	28.1	26.2	26.0	27.5	27.7	29.3	30.4	29.3	28.7	28.4	28.3	29.5	28.4	32.2	31.9	12.4	*
1.1 Acute lymphoid leukemia	6.2	6.8	6.6	6.7	5.6	5.9	6.8	7.0	7.7	7.1	7.5	7.5	6.3	7.0	6.8	6.5	7.5	6.9	10.9	-
1.2 Acute myeloid leukemia	12.3	11.1	13.3	13.8	12.4	11.6	12.6	13.2	12.4	13.1	12.3	11.6	13.2	12.2	13.0	13.3	13.1	13.3	7.6	-
1.3 Chronic myeloid leukemia	4.1	4.9	5.4	4.6	5.0	5.4	5.0	4.8	5.8	6.2	5.7	6.0	6.3	6.5	6.8	6.1	8.4	8.3	4.1	-
1.4 Other and unspecified leukemia	3.0	3.3	3.6	3.0	3.1	3.1	3.1	2.7	3.5	4.1	3.7	3.6	2.7	2.5	2.9	2.5	3.2	3.4	1.5	-
2 Lymphomas	21.2	18.4	21.3	20.7	25.7	26.9	25.5	27.7	28.0	30.7	30.9	31.7	35.7	34.7	32.5	33.7	34.8	39.9	13.2	*
2.1 Non-Hodgkin lymphoma	19.1	16.0	18.2	17.5	21.9	22.3	22.2	23.9	23.6	25.4	26.0	26.2	29.0	27.7	26.4	27.1	28.3	32.2	13.4	*
2.2 Hodgkin lymphoma	2.1	2.5	3.0	3.2	3.8	4.5	3.3	3.8	4.4	5.3	4.9	5.5	6.7	7.0	6.1	6.6	6.5	7.7	11.4	*
3 CNS and other intracranial and intraspinal neoplasms	15.0	14.9	14.5	15.3	17.9	17.2	15.2	16.1	16.3	18.1	16.4	16.5	14.9	16.2	14.8	14.3	17.5	16.4	2.2	-
3.1. Astrocytoma	6.2	5.2	6.0	5.9	6.5	6.8	5.7	5.7	7.2	7.1	6.2	6.9	6.7	7.1	6.3	5.3	7.6	8.0	0.4	-
3.1.1 Specified low-grade astrocytic tumors	0.6	0.5	0.9	0.5	0.7	0.8	0.8	0.8	0.7	0.9	0.5	0.6	0.9	0.8	0.4	0.6	0.7	0.5	-5.2	-
3.1.2 Glioblastoma and anaplastic astrocytoma	3.9	2.9	3.4	3.6	3.9	4.6	3.1	3.4	4.8	4.7	4.0	4.2	4.5	4.4	4.3	3.6	4.7	5.3	0.8	-
3.1.3 Astrocytoma, NOS	1.6	1.8	1.7	1.8	1.8	1.4	1.8	1.5	1.8	1.5	1.7	2.1	1.3	1.9	1.6	1.1	2.2	2.2	-1.8	-
3.2 Other glioma	2.3	2.4	2.8	3.5	3.8	3.8	3.3	4.1	3.5	4.8	4.5	4.5	4.3	4.9	4.3	4.7	4.9	4.3	3.8	-
3.3 Ependymoma	0.7	1.1	1.1	0.8	1.1	1.0	1.0	1.3	1.3	1.6	1.2	1.4	1.4	1.2	1.0	1.4	1.7	1.5	0.6	-
3.4. Medulloblastoma and other PNET	1.2	1.1	1.1	1.4	1.8	1.8	1.0	1.9	1.1	1.7	1.4	1.0	0.4	1.1	1.2	1.0	1.0	0.7	-2.4	-
3.4.1 Medulloblastoma	0.4	0.4	0.5	0.5	0.9	0.7	0.3	0.6	0.4	0.6	0.7	0.4	0.1	0.3	0.4	0.2	0.4	0.3	-3.3	-
3.4.2 Supratentorial PNET	0.8	0.7	0.6	1.0	0.9	1.1	0.7	1.3	0.6	1.1	0.7	0.6	0.2	0.8	0.7	0.7	0.5	0.4	-3.8	-
3.5 Other specified intracranial and intraspinal neoplasms	0.7	0.6	0.4	0.2	0.7	0.5	0.5	0.4	0.5	0.6	0.6	0.4	0.1	0.5	0.4	0.4	0.8	0.6	-3.3	-
3.6 Unspecified intracranial and intraspinal neoplasms	4.0	4.5	3.1	3.4	4.0	3.2	3.7	2.8	2.7	2.4	2.5	2.2	1.9	1.2	1.6	1.5	1.4	1.3	-6.1	-
4 Osseous and chondromatous neoplasms	8.0	7.9	9.7	6.9	9.2	7.9	7.3	7.2	8.7	9.5	8.7	9.5	10.1	8.8	8.8	11.6	9.7	9.6	8.2	*
4.1 Osteosarcoma	4.1	4.0	5.3	3.7	4.3	4.3	3.8	3.2	3.7	4.9	3.6	4.5	4.4	4.3	3.9	5.6	4.6	3.7	6.7	*
4.2 Chondrosarcoma	1.6	1.5	1.2	1.3	2.0	1.2	1.4	1.2	1.6	2.0	1.7	2.2	2.4	2.1	1.9	3.0	2.8	2.7	2.3	-
4.3 Ewing tumor	0.6	1.1	1.4	0.9	1.3	1.0	0.9	1.2	1.5	1.1	1.8	1.7	1.9	1.0	1.7	1.5	1.4	1.6	1.5	-
4.4 Other specified and unspecified bone tumors	1.6	1.4	1.7	1.0	1.6	1.4	1.2	1.6	1.9	1.5	1.6	1.1	1.3	1.3	1.3	1.6	0.9	1.6	0.2	-
5 Soft tissue sarcomas	11.1	11.0	12.7	12.4	12.2	13.4	13.1	14.8	16.4	15.4	15.6	16.6	16.6	20.5	19.0	20.7	17.9	16.9	7.3	*
5.1 Fibromatous neoplasms	2.3	2.4	2.4	2.5	3.6	3.2	3.9	4.1	4.2	5.3	4.0	4.9	5.0	6.0	5.6	6.1	5.3	5.7	-1.1	-
5.2 Rhabdomyosarcoma	1.1	1.3	1.1	1.2	0.5	1.9	1.1	1.7	1.4	0.5	1.0	1.3	1.2	1.8	1.6	2.2	1.1	0.6	-0.8	-
5.3 Other soft tissue sarcoma	7.7	7.4	9.2	8.6	8.1	8.3	8.2	9.0	10.8	9.5	10.6	10.4	10.4	12.7	11.8	12.5	11.5	10.6	8.3	*
5.3.1 Specified soft tissue	6.0	6.0	8.1	7.3	7.0	6.1	6.8	6.7	8.6	7.7	8.5	8.6	8.5	10.6	9.1	9.4	8.9	8.5	7.9	*

sarcoma																				
5.3.2 Unspecified soft tissue sarcoma	1.8	1.4	1.1	1.4	1.1	2.2	1.4	2.3	2.2	1.8	2.1	1.9	1.9	2.1	2.7	3.0	2.6	2.1	4.5	-
6 Germ cell and trophoblastic neoplasms	11.7	12.3	13.1	12.7	12.9	12.6	15.5	14.9	17.1	15.9	16.6	19.4	19.1	19.2	21.1	22.7	21.9	22.6	10.4	*
6.1 Germ cell and trophoblastic neoplasms of gonads	8.2	7.8	8.7	8.3	8.3	8.9	9.8	9.8	10.4	10.6	10.8	12.9	13.4	13.3	15.2	15.4	15.5	15.3	10.2	*
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	3.6	4.5	4.4	4.4	4.6	3.8	5.7	5.2	6.6	5.3	5.9	6.6	5.7	5.9	5.9	7.4	6.4	7.3	8.0	*
6.2.1 Intracranial	1.6	1.9	1.8	2.3	2.3	1.6	3.0	2.7	3.0	2.8	2.8	3.1	2.5	3.1	3.5	3.2	3.1	3.5	-0.3	-
6.2.2 Other nongonadal	1.9	2.6	2.6	2.2	2.2	2.2	2.7	2.5	3.6	2.5	3.1	3.5	3.2	2.8	2.4	4.2	3.3	3.8	5.0	-
7 Melanoma and skin carcinomas	3.6	3.0	3.8	3.1	2.2	4.1	6.0	4.5	5.4	5.0	5.9	5.6	6.6	4.6	6.3	6.4	5.3	5.7	6.9	*
7.1 Melanoma	1.7	1.7	1.5	1.4	1.0	2.0	3.0	1.7	1.9	2.3	2.8	2.3	2.5	1.5	2.5	2.8	1.8	2.2	3.4	-
7.2 Skin carcinomas	1.9	1.3	2.3	1.7	1.2	2.1	3.0	2.8	3.5	2.7	3.2	3.4	4.1	3.0	3.7	3.6	3.6	3.5	1.9	-
8 Carcinomas	282.6	273.7	303.2	308.2	349.4	376.8	400.1	439.5	487.0	561.5	632.1	687.4	741.8	774.1	783.5	672.0	596.6	648.6	9.3	*
8.1 Thyroid carcinoma	47.7	46.2	61.7	71.0	101.1	130.7	148.4	184.1	228.3	299.6	356.6	410.0	454.2	493.5	504.1	381.2	321.5	357.1	14.0	*
8.2 Other carcinoma of head and neck	8.2	8.2	8.7	9.0	9.8	9.4	9.3	9.5	10.2	9.8	11.8	10.3	12.1	11.9	12.3	13.1	12.8	14.6	8.9	*
8.2.1 Nasopharyngeal carcinoma	2.1	2.8	2.0	2.1	2.4	2.4	2.0	2.2	2.4	2.3	2.7	2.1	2.7	2.3	2.7	1.9	2.4	2.6	-2.8	-
8.2.2 Other sites in lip, oral cavity and pharynx	4.9	4.6	5.4	5.8	5.9	5.7	6.2	6.1	6.8	6.4	7.8	6.7	8.5	8.4	8.7	9.9	9.3	11.4	6.9	*
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	1.2	0.8	1.3	1.0	1.4	1.3	1.1	1.2	1.0	1.0	1.3	1.4	0.9	1.3	0.9	1.3	1.0	0.6	-1.1	-
8.3 Carcinoma of trachea, bronchus, and lung	8.8	7.4	8.5	7.5	8.2	9.7	9.6	9.6	7.9	9.0	10.6	10.7	10.1	8.7	10.3	11.6	9.5	12.2	2.1	-
8.4 Carcinoma of breast	48.3	46.9	55.4	60.7	61.2	64.4	67.7	66.4	72.9	73.9	77.0	80.3	84.2	83.4	85.7	90.2	85.7	98.8	3.3	-
8.5 Carcinoma of genitourinary tract	55.1	52.1	55.0	52.8	55.3	52.5	52.6	56.3	57.4	58.3	60.0	63.6	64.8	65.6	65.3	72.5	69.8	73.3	7.0	-
8.5.1 Carcinoma of kidney	5.0	4.0	5.5	5.6	6.2	6.9	6.4	8.7	8.7	9.5	11.0	11.2	12.9	13.3	14.1	14.4	14.5	15.9	8.6	*
8.5.2 Carcinoma of bladder	3.6	2.8	3.1	2.7	4.0	3.4	3.7	2.4	3.5	3.1	2.7	3.2	1.9	2.6	2.4	3.5	2.7	2.8	-1.4	-
8.5.3 Carcinoma of gonads	7.9	8.2	7.6	7.9	8.9	7.9	9.0	8.8	10.4	8.6	8.7	9.6	10.6	9.8	8.7	11.9	9.7	11.0	8.6	*
8.5.4 Carcinoma of cervix and uterus	38.0	36.2	37.7	35.6	35.3	33.3	32.4	35.6	33.6	36.3	36.2	38.9	38.3	38.8	39.5	41.6	42.1	42.6	4.2	-
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	0.7	0.9	1.1	1.1	0.9	0.9	1.1	0.9	1.2	0.7	1.4	0.8	1.2	1.0	0.6	1.0	0.7	1.0	-1.3	-
8.6 Carcinoma of gastrointestinal tract	109.2	107.8	109.2	103.7	109.8	105.3	108.1	108.8	105.2	107.7	112.0	108.3	112.5	107.4	101.3	98.0	91.7	87.2	4.0	-
8.6.1 Carcinoma of colon and rectum	23.5	23.0	22.1	24.1	25.3	24.5	28.1	30.5	29.5	35.2	37.3	37.4	40.0	42.6	39.3	36.9	36.3	32.8	8.0	*
8.6.2 Carcinoma of stomach	58.1	58.9	59.9	55.8	57.5	55.3	56.1	55.0	51.8	50.1	53.2	50.5	49.2	45.0	41.6	39.7	36.9	36.1	7.1	-
8.6.3 Carcinoma of liver and intrahepatic bile ducts	23.4	21.9	23.3	20.0	22.8	20.8	19.0	19.2	18.9	17.2	16.2	15.3	17.5	14.6	14.5	15.1	12.7	11.2	2.3	-

8.6.4 Carcinoma of pancreas	1.6	2.0	1.5	1.9	1.6	2.0	2.1	1.7	2.2	2.6	2.6	2.6	3.0	2.9	3.2	3.7	3.7	4.7	1.4	-
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	2.7	2.0	2.4	1.8	2.6	2.7	2.7	2.5	2.8	2.5	2.8	2.5	2.8	2.3	2.8	2.6	2.0	2.5	1.0	-
8.7 Carcinoma of other and ill-defined sites	5.3	5.1	4.7	3.6	4.1	4.9	4.4	4.7	5.1	3.3	4.1	4.2	3.9	3.5	4.5	5.4	5.6	5.4	4.1	-
8.7.1 Adrenocortical carcinoma	0.4	0.4	0.3	0.3	0.2	0.1	0.3	0.5	0.6	0.3	0.5	0.2	0.3	0.1	0.5	0.4	0.4	0.6	-1.8	-
8.7.2 Carcinoma of other and ill-defined sites, NOS	4.9	4.8	4.4	3.4	3.9	4.8	4.1	4.2	4.5	3.0	3.7	4.0	3.6	3.4	3.9	5.0	5.3	4.9	4.2	-
9 Miscellaneous specified neoplasms, NOS	5.1	6.3	5.8	7.0	10.4	11.3	12.4	12.5	12.6	14.8	14.2	15.3	17.3	16.6	16.5	18.9	18.4	19.2	6.6	-
9.1 Other pediatric and embryonal tumors, NOS	0.7	1.0	0.6	0.7	1.2	0.8	1.3	0.8	0.8	1.3	0.6	1.2	1.0	0.4	0.8	0.3	0.8	1.2	-3.7	-
9.1.1 Wilms tumor	0.1	0.3	0.2	0.1	0.2	0.1	0.4	0.0	0.1	0.4	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.2	-4.1	*
9.1.2 Neuroblastoma	0.2	0.1	0.1	0.1	0.3	0.1	0.4	0.2	0.2	0.5	0.2	0.3	0.0	0.1	0.2	0.2	0.3	0.2	0.0	-
9.1.3 Other pediatric and embryonal tumors, NOS	0.3	0.6	0.3	0.5	0.7	0.6	0.6	0.6	0.5	0.5	0.3	0.9	0.8	0.4	0.5	0.1	0.4	0.9	-3.9	-
9.2 Other specified and embryonal tumors, NOS	4.4	5.3	5.2	6.3	9.2	10.5	11.1	11.7	11.9	13.4	13.6	14.1	16.3	16.2	15.7	18.6	17.5	18.0	7.2	*
9.2.1 Paraganglioma and glomus tumors	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.2	0.4	0.5	0.7	0.4	0.4	0.2	0.4	0.9	0.3	0.9	1.3	-
9.2.2 Other specified gonadal tumors	0.7	0.5	0.6	0.7	0.3	0.6	0.5	0.6	0.5	0.7	0.4	0.5	1.0	1.0	0.4	0.9	0.5	0.7	-1.2	-
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	1.2	1.1	1.2	1.1	1.3	1.1	1.5	1.5	1.7	1.8	1.4	2.0	2.7	3.7	3.2	3.5	3.3	3.6	9.4	*
9.2.4 Other specified neoplasms, NOS	2.3	3.3	3.2	4.1	7.2	8.5	8.8	9.4	9.2	10.4	11.0	11.2	12.3	11.3	11.7	13.3	13.5	12.8	5.9	-
10 Unspecified malignant neoplasms	31.0	27.2	24.6	18.7	19.0	16.2	13.5	11.9	10.4	10.5	10.8	10.5	11.1	8.9	10.3	13.6	13.9	9.5	-0.5	-

APC, annual percent change; CNS, central nervous system; NOS, not otherwise specified; PNET, primitive neuroectodermal tumor. *p < 0.05.