

S2 Table. Age-standardized incidence rates for Korean adolescents and young adults according to the time period of cancer diagnosis with annual percent change: male

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	312.2	299.5	317.4	295.2	331.8	329.2	341.5	356.7	381.9	410.4	445.5	464.7	510.2	524.3	552.8	501.8	475.1	499.2	8.2	*
All cancers (excluding thyroid carcinoma)	297.4	287.3	302.3	278.4	304.0	294.4	302.0	302.7	309.8	313.0	328.8	323.7	345.0	331.4	336.3	347.3	335.1	341.5	5.4	-
1 Leukemias	27.9	28.0	31.8	31.6	30.3	28.4	32.9	30.1	32.9	34.6	33.1	32.3	33.1	32.0	36.8	33.1	40.2	37.2	11.8	*
1.1 Acute lymphoid leukemia	7.0	7.0	7.2	8.2	6.1	6.7	9.3	7.7	9.1	8.9	8.9	9.0	6.9	8.2	8.0	8.2	9.2	7.8	12.9	*
1.2 Acute myeloid leukemia	13.2	12.1	13.9	13.4	13.1	11.7	12.9	14.5	12.7	12.7	13.5	12.1	14.2	13.1	14.9	14.7	15.2	14.6	5.2	-
1.3 Chronic myeloid leukemia	5.0	5.0	6.7	6.2	6.8	7.4	7.0	5.9	6.7	8.3	7.0	7.7	8.8	8.3	10.2	7.4	11.4	11.2	4.4	-
1.4 Other and unspecified leukemia	2.6	3.8	3.9	3.8	4.3	2.6	3.7	2.1	4.3	4.7	3.7	3.6	3.2	2.4	3.6	2.8	4.4	3.6	-0.4	-
2 Lymphomas	25.2	21.5	25.5	22.9	27.0	29.0	29.5	30.8	32.2	32.1	34.5	35.2	37.7	37.0	33.3	36.4	40.3	43.8	11.3	*
2.1 Non-Hodgkin lymphoma	23.3	18.5	22.3	20.0	22.4	23.8	25.8	27.1	28.1	26.7	28.8	28.9	30.4	29.0	27.2	29.7	33.6	35.5	11.4	*
2.2 Hodgkin lymphoma	1.9	3.0	3.1	2.8	4.6	5.1	3.7	3.8	4.1	5.4	5.7	6.2	7.3	8.0	6.0	6.7	6.8	8.2	7.3	*
3 CNS and other intracranial and intraspinal neoplasms	17.0	16.6	16.5	17.6	20.4	18.0	15.2	18.3	17.0	18.1	19.5	17.5	17.6	17.9	16.4	16.1	19.7	16.2	1.1	-
3.1. Astrocytoma	6.5	5.7	7.3	6.7	7.2	6.4	5.4	6.3	7.0	6.3	7.1	7.8	7.4	7.2	7.1	6.4	9.7	7.6	-0.2	-
3.1.1 Specified low-grade astrocytic tumors	0.5	0.6	1.0	0.7	1.1	0.7	0.8	0.8	0.6	0.6	0.5	0.6	0.4	0.7	0.4	0.7	1.2	0.4	-3.3	-
3.1.2 Glioblastoma and anaplastic astrocytoma	4.4	3.1	4.5	4.0	3.9	4.5	2.9	3.9	4.6	4.0	4.4	5.0	5.4	4.3	4.6	4.3	6.0	5.2	-0.2	-
3.1.3 Astrocytoma, NOS	1.7	2.0	1.8	2.0	2.2	1.2	1.7	1.6	1.8	1.7	2.2	2.2	1.5	2.2	2.1	1.5	2.6	1.9	-0.3	-
3.2 Other glioma	3.2	2.8	2.8	4.1	4.1	3.8	3.4	4.5	3.9	5.4	5.4	4.5	5.8	5.6	5.0	4.8	5.1	4.5	2.0	-
3.3 Ependymoma	0.8	1.2	0.9	0.7	1.2	1.4	1.2	1.7	1.3	1.6	2.0	1.2	1.6	1.3	0.7	1.8	1.3	1.5	1.3	-
3.4. Medulloblastoma and other PNET	1.5	0.8	1.0	1.9	2.2	2.1	0.7	1.9	1.0	1.7	1.6	1.3	0.5	1.8	1.1	1.0	1.4	0.7	-1.4	-
3.4.1 Medulloblastoma	0.5	0.3	0.3	0.7	1.0	0.5	0.1	0.7	0.3	0.6	0.8	0.2	0.1	0.5	0.4	0.3	0.5	0.4	-0.7	-
3.4.2 Supratentorial PNET	1.0	0.5	0.7	1.1	1.2	1.6	0.6	1.2	0.7	1.1	0.8	1.1	0.3	1.3	0.7	0.8	0.9	0.3	-4.1	-
3.5 Other specified intracranial and intraspinal neoplasms	0.9	0.5	0.5	0.2	0.4	0.6	0.6	0.5	0.5	0.5	0.7	0.6	0.0	0.7	0.6	0.6	1.1	0.9	-1.6	-
3.6 Unspecified intracranial and intraspinal neoplasms	4.0	5.6	4.1	4.1	5.3	3.7	4.0	3.4	3.3	2.7	2.8	2.1	2.4	1.4	1.9	1.5	1.1	1.0	-4.6	-
4 Osseous and chondromatous neoplasms	9.5	10.0	11.6	7.4	10.7	8.8	9.1	8.8	10.3	11.4	11.4	10.5	12.1	10.3	10.2	13.2	9.8	11.7	7.0	*
4.1 Osteosarcoma	5.0	5.2	6.2	4.2	5.1	4.5	5.5	3.6	4.4	6.7	4.8	5.3	5.7	4.6	4.7	6.1	5.0	4.7	2.9	-
4.2 Chondrosarcoma	2.0	1.9	1.5	1.4	2.4	1.4	1.6	1.8	1.7	2.1	1.7	2.0	2.4	2.5	2.0	3.8	2.8	3.3	1.8	-
4.3 Ewing tumor	0.7	1.9	1.6	0.9	1.2	1.4	1.0	1.6	2.1	1.0	2.9	1.9	2.4	1.4	2.2	2.1	1.4	1.3	-2.0	-
4.4 Other specified and unspecified bone tumors	1.8	1.1	2.2	0.9	2.1	1.5	1.0	1.9	2.1	1.7	1.9	1.3	1.6	1.8	1.3	1.2	0.6	2.4	-1.1	-
5 Soft tissue sarcomas	11.5	10.8	12.7	12.7	12.0	13.3	13.2	14.7	18.0	16.5	16.7	16.3	17.9	20.7	20.7	20.3	16.8	16.2	5.8	-
5.1 Fibromatous neoplasms	2.8	2.7	2.4	2.3	3.7	2.7	4.2	3.7	5.3	6.0	3.7	4.3	5.3	6.3	6.2	5.6	4.8	4.3	-3.4	-
5.2 Rhabdomyosarcoma	1.4	1.3	1.2	1.6	0.7	2.2	1.2	1.9	1.6	0.5	1.0	1.6	1.5	2.0	2.1	2.1	1.3	0.5	-5.0	*
5.3 Other soft tissue sarcoma	7.3	6.8	9.1	8.8	7.6	8.4	7.9	9.1	11.1	9.9	12.0	10.4	11.0	12.4	12.4	12.5	10.8	11.4	6.5	*
5.3.1 Specified soft tissue sarcoma	5.8	5.2	8.1	7.4	6.4	6.7	6.5	7.1	8.5	7.8	9.6	8.3	9.1	10.3	9.7	9.4	8.7	9.0	6.2	*

5.3.2 Unspecified soft tissue sarcoma	1.5	1.6	1.0	1.3	1.2	1.7	1.3	2.0	2.6	2.1	2.4	2.1	2.0	2.1	2.8	3.1	2.1	2.4	1.6	-
6 Germ cell and trophoblastic neoplasms	10.0	11.9	11.9	13.9	13.5	14.4	17.8	17.6	20.1	18.4	21.0	24.2	24.5	24.8	25.4	29.9	29.4	31.3	12.2	*
6.1 Germ cell and trophoblastic neoplasms of gonads	6.3	7.0	7.7	8.3	7.7	9.9	10.1	11.1	11.2	11.6	13.4	15.4	16.8	16.4	16.5	19.7	20.8	20.5	10.7	*
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	3.7	4.9	4.2	5.5	5.8	4.4	7.7	6.5	9.0	6.8	7.7	8.7	7.8	8.4	8.9	10.2	8.6	10.9	5.2	-
6.2.1 Intracranial	2.7	3.0	3.0	4.0	4.2	2.6	4.7	4.2	4.4	4.9	4.2	5.5	4.0	5.1	5.8	4.8	5.1	6.4	-0.8	-
6.2.2 Other nongonadal	1.0	1.9	1.2	1.5	1.6	1.8	3.0	2.3	4.6	1.9	3.4	3.3	3.7	3.3	3.1	5.4	3.5	4.5	2.5	-
7 Melanoma and skin carcinomas	3.6	3.0	4.2	3.6	2.0	4.4	6.2	4.2	6.1	4.6	5.9	5.6	6.6	5.1	7.6	6.5	6.1	5.5	3.2	-
7.1 Melanoma	1.4	1.6	1.4	1.5	0.9	1.9	3.3	1.3	2.5	1.8	2.4	1.9	2.1	1.8	2.6	2.7	1.7	1.7	-2.1	-
7.2 Skin carcinomas	2.2	1.4	2.8	2.1	1.1	2.5	2.9	2.9	3.6	2.8	3.5	3.7	4.5	3.4	4.9	3.8	4.4	3.9	1.0	-
8 Carcinomas	178.1	167.9	175.4	164.7	189.1	191.0	195.5	210.8	225.7	253.9	284.3	302.5	337.3	355.1	378.7	318.6	286.0	310.0	9.1	*
8.1 Thyroid carcinoma	14.8	12.2	15.1	16.7	27.8	34.8	39.4	54.0	72.2	97.5	116.7	141.1	165.3	192.9	216.4	154.5	140.0	157.7	14.1	*
8.2 Other carcinoma of head and neck	9.3	8.7	9.7	8.9	11.7	10.8	10.1	9.9	11.5	10.9	13.3	10.7	12.4	13.6	11.9	14.7	14.1	17.6	8.0	*
8.2.1 Nasopharyngeal carcinoma	2.8	3.2	2.7	2.4	3.4	3.3	2.8	2.7	2.9	3.4	4.0	2.4	3.9	3.1	3.3	2.9	3.5	3.8	-1.7	-
8.2.2 Other sites in lip, oral cavity and pharynx	4.8	4.5	5.3	5.5	6.4	5.8	5.9	5.7	7.5	6.2	7.9	6.5	8.0	9.1	7.7	10.2	9.2	12.7	6.7	*
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	1.7	1.0	1.7	1.0	2.0	1.7	1.4	1.5	1.1	1.2	1.4	1.8	0.6	1.4	0.9	1.6	1.4	1.0	-4.1	-
8.3 Carcinoma of trachea, bronchus, and lung	9.3	8.2	8.8	7.9	8.5	9.8	9.5	8.6	7.0	8.5	10.1	11.0	11.0	8.4	10.0	11.1	7.9	12.3	2.7	-
8.4 Carcinoma of breast	0.6	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.1	0.6	0.4	0.2	0.2	0.2	0.3	0.2	0.4	0.2	-2.1	-
8.5 Carcinoma of genitourinary tract	13.0	10.7	12.9	12.3	14.1	14.8	15.3	16.8	18.6	17.5	20.8	20.7	21.0	23.4	24.4	28.0	23.9	26.6	7.2	-
8.5.1 Carcinoma of kidney	6.6	5.3	7.5	7.4	7.2	8.8	8.7	12.3	12.3	11.9	15.1	15.2	16.8	19.1	19.9	20.7	19.9	21.8	5.9	-
8.5.2 Carcinoma of bladder	5.7	4.3	4.5	3.7	5.8	5.1	5.6	3.7	5.3	4.8	4.1	4.9	3.1	3.5	3.9	5.9	3.3	3.8	-4.6	-
8.5.3 Carcinoma of gonads	0.0	0.1	0.0	0.1	0.2	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.4	0.3	0.2	3.8	-
8.5.4 Carcinoma of cervix and uterus	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	0.7	1.0	0.9	1.2	0.9	0.7	1.0	0.9	0.9	0.8	1.5	0.6	1.2	0.8	0.6	0.9	0.5	0.8	-4.3	-
8.6 Carcinoma of gastrointestinal tract	125.6	123.1	124.4	114.7	121.9	114.7	115.6	116.8	111.1	115.8	118.8	114.7	123.1	113.4	110.7	103.7	93.3	90.5	3.2	-
8.6.1 Carcinoma of colon and rectum	24.9	24.6	23.8	27.3	26.7	26.6	31.5	32.2	32.2	38.3	40.9	42.8	45.1	46.5	46.7	40.4	38.7	37.8	10.4	*
8.6.2 Carcinoma of stomach	59.7	59.6	60.3	52.8	54.5	50.1	51.9	50.9	44.9	45.9	49.5	43.4	44.8	39.9	36.7	33.8	30.4	30.3	7.9	*
8.6.3 Carcinoma of liver and	35.8	34.5	36.7	30.4	36.8	33.7	28.0	29.2	28.6	25.8	24.0	23.6	26.8	21.4	21.3	22.6	18.4	15.9	4.6	-

intrahepatic bile ducts																					
8.6.4 Carcinoma of pancreas	2.1	2.6	1.5	2.5	1.7	1.7	1.8	2.0	2.5	3.1	2.4	2.1	3.0	3.4	2.8	3.9	3.4	3.8	-1.4	-	
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	3.1	1.9	2.2	1.6	2.2	2.5	2.4	2.6	2.8	2.8	2.1	2.8	3.4	2.2	3.3	3.0	2.4	2.7	-1.1	-	
8.7 Carcinoma of other and ill-defined sites	5.5	4.9	4.1	4.1	4.7	5.9	5.1	4.6	5.2	3.2	4.0	4.1	4.3	3.1	4.9	6.4	6.4	5.2	3.3	-	
8.7.1 Adrenocortical carcinoma	0.5	0.3	0.3	0.1	0.2	0.1	0.5	0.3	0.4	0.3	0.6	0.1	0.3	0.0	0.4	0.2	0.4	0.4	-1.8	-	
8.7.2 Carcinoma of other and ill-defined sites, NOS	5.0	4.5	3.9	4.0	4.4	5.8	4.6	4.3	4.7	2.9	3.4	3.9	3.9	3.1	4.5	6.2	6.0	4.8	3.3	-	
9 Miscellaneous specified neoplasms, NOS	2.8	4.5	4.6	4.4	9.0	9.9	12.1	12.5	12.1	12.9	12.1	13.8	16.5	15.0	16.5	18.5	17.5	18.5	8.7	*	
9.1 Other pediatric and embryonal tumors, NOS	0.6	0.7	0.7	0.4	1.5	0.8	1.6	0.8	0.8	1.2	0.5	1.4	1.0	0.4	0.6	0.3	0.8	1.0	-4.4	*	
9.1.1 Wilms tumor	0.0	0.3	0.1	0.0	0.1	0.1	0.4	0.1	0.1	0.2	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.3	-0.4	-	
9.1.2 Neuroblastoma	0.2	0.2	0.2	0.0	0.5	0.1	0.5	0.2	0.2	0.7	0.0	0.3	0.0	0.0	0.1	0.1	0.1	0.2	-1.9	-	
9.1.3 Other pediatric and embryonal tumors, NOS	0.4	0.2	0.4	0.4	0.9	0.6	0.7	0.5	0.5	0.3	0.5	1.0	0.9	0.4	0.4	0.1	0.4	0.4	-3.2	-	
9.2 Other specified and embryonal tumors, NOS	2.2	3.8	3.9	4.0	7.6	9.1	10.5	11.7	11.3	11.8	11.6	12.4	15.5	14.6	15.9	18.2	16.6	17.4	8.4	*	
9.2.1 Paraganglioma and glomus tumors	0.4	0.4	0.4	0.2	0.2	0.0	0.4	0.4	0.6	0.6	0.6	0.4	0.6	0.3	0.5	1.1	0.2	1.0	0.0	-	
9.2.2 Other specified gonadal tumors	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.0	0.1	0.1	3.3	-	
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	1.2	1.5	1.7	1.5	2.0	1.5	2.0	1.9	2.1	1.9	1.9	2.2	3.9	4.3	5.0	4.6	4.1	5.2	8.1	*	
9.2.4 Other specified neoplasms, NOS	0.7	1.9	1.8	2.1	5.4	7.6	8.1	9.3	8.6	9.3	9.1	9.8	10.9	9.8	10.1	12.4	12.3	11.1	8.8	*	
10 Unspecified malignant neoplasms	26.5	25.2	23.3	16.4	17.9	12.1	10.0	8.7	7.6	7.8	7.1	6.9	6.9	6.4	7.3	9.3	9.3	8.8	2.1	-	

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