

**S11 Table.** Incidence and risk of early-onset colorectal cancer according to the TG quartile in 2011 among male participants aged 20-49 years by anatomic sites (National Health Insurance Service 2009-2019), if incidence age > 50 then censored

Cancer site	TG_Q by sex	No.	Event	PY	IR	Model 1	Model 2	Model 3	Model 4
<b>Male</b>									
Colorectal	Q1	530,305	883	3,349,739	0.264	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	526,036	1,047	3,249,195	0.322	1.223 (1.118-1.338) <sup>a)</sup>	1.138 (1.041-1.245) <sup>a)</sup>	1.135 (1.038-1.242) <sup>a)</sup>	1.116 (1.020-1.222) <sup>a)</sup>
	Q3	534,544	1,081	3,258,782	0.332	1.260 (1.153-1.377) <sup>a)</sup>	1.122 (1.026-1.227) <sup>a)</sup>	1.115 (1.020-1.219) <sup>a)</sup>	1.079 (0.985-1.181)
	Q4	532,055	1,204	3,220,386	0.374	1.420 (1.302-1.549) <sup>a)</sup>	1.226 (1.124-1.338) <sup>a)</sup>	1.209 (1.107-1.320) <sup>a)</sup>	1.141 (1.041-1.251) <sup>a)</sup>
	p for trend					<0.0001	<0.0001	0.0001	0.0183
Colon	Q1	530,305	553	3,349,739	0.165	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	526,036	687	3,249,195	0.211	1.282 (1.146-1.434) <sup>a)</sup>	1.184 (1.059-1.325) <sup>a)</sup>	1.181 (1.056-1.321) <sup>a)</sup>	1.153 (1.030-1.291) <sup>a)</sup>
	Q3	534,544	678	3,258,782	0.208	1.262 (1.128-1.412) <sup>a)</sup>	1.111 (0.993-1.244)	1.105 (0.987-1.237)	1.054 (0.940-1.183)
	Q4	532,055	751	3,220,386	0.233	1.415 (1.268-1.579) <sup>a)</sup>	1.204 (1.079-1.344) <sup>a)</sup>	1.189 (1.064-1.329) <sup>a)</sup>	1.100 (0.979-1.235)
	p for trend					<0.0001	0.0068	0.0152	0.3593
Rectum	Q1	530,305	330	3,349,739	0.099	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	526,036	360	3,249,195	0.111	1.125 (0.969-1.306)	1.060 (0.913-1.231)	1.058 (0.911-1.228)	1.053 (0.906-1.224)
	Q3	534,544	403	3,258,782	0.124	1.256 (1.086-1.453) <sup>a)</sup>	1.142 (0.987-1.321)	1.134 (0.980-1.313)	1.122 (0.967-1.303)
	Q4	532,055	453	3,220,386	0.141	1.429 (1.240-1.647) <sup>a)</sup>	1.266 (1.098-1.460) <sup>a)</sup>	1.245 (1.078-1.437) <sup>a)</sup>	1.217 (1.047-1.414) <sup>a)</sup>
	p for trend					<0.0001	0.0006	0.0016	0.0068
Proximal colon	Q1	530,305	82	3,349,739	0.024	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	526,036	104	3,249,195	0.032	1.310 (0.981-1.750)	1.211 (0.907-1.618)	1.198 (0.896-1.601)	1.163 (0.869-1.557)
	Q3	534,544	94	3,258,782	0.029	1.182 (0.879-1.590)	1.042 (0.775-1.402)	1.021 (0.758-1.375)	0.964 (0.712-1.305)
	Q4	532,055	99	3,220,386	0.031	1.261 (0.941-1.690)	1.074 (0.801-1.441)	1.037 (0.771-1.395)	0.942 (0.691-1.284)
	p for trend					0.2215	0.939	0.8627	0.4162
Distal Colon	Q1	530,305	153	3,349,739	0.046	1 (reference)	1 (reference)	1 (reference)	1 (reference)

	Q2	526,036	181	3,249,195	0.056	1.220 (0.984-1.513)	1.115 (0.899-1.383)	1.113 (0.897-1.381)	1.092 (0.880-1.357)
	Q3	534,544	191	3,258,782	0.059	1.284 (1.038-1.588) <sup>a)</sup>	1.112 (0.899-1.376)	1.106 (0.893-1.370)	1.065 (0.857-1.324)
	Q4	532,055	214	3,220,386	0.066	1.456 (1.183-1.792) <sup>a)</sup>	1.214 (0.986-1.495)	1.197 (0.970-1.477)	1.124 (0.903-1.399)
	p for trend					0.0004	0.0843	0.1176	0.3688
Unspecified	Q1	530,305	317	3,349,739	0.095	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	526,036	399	3,249,195	0.123	1.298 (1.120-1.505) <sup>a)</sup>	1.206 (1.041-1.398) <sup>a)</sup>	1.204 (1.039-1.396) <sup>a)</sup>	1.174 (1.012-1.362) <sup>a)</sup>
	Q3	534,544	391	3,258,782	0.12	1.269 (1.095-1.472) <sup>a)</sup>	1.127 (0.972-1.307)	1.123 (0.968-1.304)	1.068 (0.918-1.243)
	Q4	532,055	433	3,220,386	0.134	1.423 (1.231-1.645) <sup>a)</sup>	1.224 (1.058-1.415) <sup>a)</sup>	1.214 (1.049-1.406) <sup>a)</sup>	1.116 (0.958-1.301)
	p for trend					<0.0001	0.0261	0.0367	0.3988

Model 1 was unadjusted. Model 2 was adjusted for age. Model 3 was adjusted for age, smoking status, alcohol consumption, regular exercise, and low-income status. Model 4 was adjusted for age, smoking status, alcohol consumption, regular exercise, low-income status, obesity, diabetes mellitus, hypertension, and anti-dyslipidemia medications. TG levels are divided into quartiles by sex (male Q1: < 87 mg/dL, Q2: 87-126 mg/dL, Q3: 127-188 mg/dL, Q4: ≥ 189 mg/dL). Analyses were done using the variables measured in 2011. IR, incidence rate, per 1,000 person-years; PY, person-years; TG, triglyceride. <sup>a)</sup>Indicates statistical significance.