

S10 Table. Incidence and risk of early-onset colorectal cancer according to TG quartile cut-Off values determined differently by sex in 2011 among 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
Colorectal	Q1	836,341	1,611	5,279,163	0.305	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	1,814	5,099,995	0.356	1.167 (1.091-1.248) ^{a)}	1.077 (1.007-1.151) ^{a)}	1.075 (1.005-1.150) ^{a)}	1.069 (0.999-1.143)
	Q3	835,894	1,932	4,987,752	0.387	1.272 (1.191-1.359) ^{a)}	1.108 (1.037-1.184) ^{a)}	1.105 (1.034-1.181) ^{a)}	1.090 (1.019-1.166) ^{a)}
	Q4	835,736	2,135	4,855,187	0.44	1.446 (1.355-1.542) ^{a)}	1.199 (1.124-1.280) ^{a)}	1.191 (1.115-1.271) ^{a)}	1.158 (1.082-1.239) ^{a)}
	p for trend					<0.0001	<0.0001	<0.0001	<0.0001
Colon	Q1	836,341	1,155	5,279,163	0.219	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	1,318	5,099,995	0.258	1.183 (1.093-1.280) ^{a)}	1.086 (1.003-1.175) ^{a)}	1.085 (1.002-1.174) ^{a)}	1.078 (0.996-1.167)
	Q3	835,894	1,392	4,987,752	0.279	1.279 (1.183-1.383) ^{a)}	1.107 (1.024-1.197) ^{a)}	1.105 (1.021-1.195) ^{a)}	1.090 (1.007-1.180) ^{a)}
	Q4	835,736	1,527	4,855,187	0.315	1.443 (1.337-1.558) ^{a)}	1.186 (1.098-1.281) ^{a)}	1.180 (1.092-1.275) ^{a)}	1.149 (1.060-1.245) ^{a)}
	p for trend					<0.0001	<0.0001	<0.0001	0.0011
Rectum	Q1	836,341	456	5,279,163	0.086	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	496	5,099,995	0.097	1.127 (0.992-1.279)	1.053 (0.927-1.196)	1.051 (0.925-1.194)	1.044 (0.919-1.186)
	Q3	835,894	540	4,987,752	0.108	1.255 (1.108-1.421) ^{a)}	1.111 (0.980-1.258)	1.105 (0.975-1.253)	1.090 (0.960-1.237)
	Q4	835,736	608	4,855,187	0.125	1.452 (1.286-1.639) ^{a)}	1.232 (1.090-1.392) ^{a)}	1.217 (1.076-1.376) ^{a)}	1.181 (1.039-1.343) ^{a)}
	p for trend					<0.0001	0.0005	0.0011	0.0083
Proximal colon	Q1	836,341	113	5,279,163	0.021	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	141	5,099,995	0.028	1.294 (1.010-1.657) ^{a)}	1.177 (0.919-1.508)	1.168 (0.912-1.497)	1.149 (0.896-1.473)
	Q3	835,894	137	4,987,752	0.027	1.287 (1.003-1.651) ^{a)}	1.090 (0.849-1.399)	1.075 (0.837-1.381)	1.038 (0.806-1.338)
	Q4	835,736	163	4,855,187	0.034	1.576 (1.239-2.003) ^{a)}	1.261 (0.991-1.604)	1.231 (0.966-1.570)	1.156 (0.898-1.488)
	p for trend					0.0004	0.1112	0.1685	0.4249
Distal Colon	Q1	836,341	258	5,279,163	0.049	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	282	5,099,995	0.055	1.133 (0.957-1.341)	1.027 (0.867-1.216)	1.023 (0.864-1.212)	1.010 (0.853-1.197)

	Q3	835,894	315	4,987,752	0.063	1.295 (1.098-1.527) ^{a)}	1.092 (0.926-1.288)	1.085 (0.919-1.280)	1.056 (0.893-1.248)
	Q4	835,736	363	4,855,187	0.075	1.535 (1.308-1.800) ^{a)}	1.220 (1.039-1.432) ^{a)}	1.203 (1.024-1.414) ^{a)}	1.144 (0.967-1.353)
	p for trend					<0.0001	0.0091	0.0157	0.0901
Unspecified	Q1	836,341	780	5,279,163	0.148	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	832,664	890	5,099,995	0.175	1.183 (1.074-1.302) ^{a)}	1.092 (0.992-1.202)	1.093 (0.993-1.203)	1.090 (0.990-1.200)
	Q3	835,894	933	4,987,752	0.187	1.269 (1.154-1.396) ^{a)}	1.113 (1.012-1.224) ^{a)}	1.114 (1.013-1.226) ^{a)}	1.107 (1.005-1.219) ^{a)}
	Q4	835,736	993	4,855,187	0.205	1.390 (1.265-1.527) ^{a)}	1.162 (1.058-1.277) ^{a)}	1.163 (1.057-1.278) ^{a)}	1.145 (1.038-1.264) ^{a)}
	p for trend					<0.0001	0.0022	0.0023	0.0085

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: < 71 mg/dL, Q2: 71-104 mg/dL, Q3: 105-160 mg/dL, Q4: ≥ 161 mg/dL) (female Q1: < 56 mg/dL, Q2: 57-76 mg/dL, Q3: 77-107 mg/dL, Q4: ≥ 108 mg/dL). Analyses were done using the variables measured in 2011. IR, incidence rate, per 1,000 person-years; PY, person-years; TG, triglyceride. ^{a)}Indicates statistical significance.