

**S12 Table.** Incidence and risk of early-onset colorectal cancer according to the TG quartile in 2011 among female 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>Female</b>									
Colorectal	Q1	306,036	728	1,929,424	0.377	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	306,628	767	1,850,800	0.414	1.101 (0.995-1.219)	1.003 (0.907-1.111)	1.005 (0.908-1.112)	1.006 (0.909-1.114)
	Q3	301,350	851	1,728,970	0.492	1.312 (1.188-1.448) <sup>a)</sup>	1.096 (0.992-1.211)	1.098 (0.994-1.213)	1.103 (0.998-1.219)
	Q4	303,681	931	1,634,801	0.569	1.523 (1.382-1.679) <sup>a)</sup>	1.177 (1.067-1.298) <sup>a)</sup>	1.179 (1.069-1.301) <sup>a)</sup>	1.194 (1.079-1.321) <sup>a)</sup>
	p for trend					<0.0001	0.0002	0.0002	0.0001
Colon	Q1	306,036	602	1,929,424	0.312	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	306,628	631	1,850,800	0.341	1.096 (0.980-1.225)	0.998 (0.892-1.116)	0.999 (0.893-1.117)	1.002 (0.896-1.120)
	Q3	301,350	714	1,728,970	0.413	1.332 (1.195-1.484) <sup>a)</sup>	1.110 (0.996-1.238)	1.113 (0.998-1.241)	1.122 (1.005-1.252) <sup>a)</sup>
	Q4	303,681	776	1,634,801	0.475	1.537 (1.382-1.710) <sup>a)</sup>	1.184 (1.063-1.318) <sup>a)</sup>	1.186 (1.065-1.321) <sup>a)</sup>	1.216 (1.088-1.358) <sup>a)</sup>
	p for trend					<0.0001	0.0003	0.0003	<0.0001
Rectum	Q1	306,036	126	1,929,424	0.065	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	306,628	136	1,850,800	0.073	1.126 (0.884-1.435)	1.032 (0.810-1.316)	1.034 (0.811-1.318)	1.027 (0.806-1.310)
	Q3	301,350	137	1,728,970	0.079	1.216 (0.955-1.549)	1.027 (0.805-1.309)	1.030 (0.807-1.313)	1.012 (0.792-1.292)
	Q4	303,681	155	1,634,801	0.095	1.457 (1.152-1.844) <sup>a)</sup>	1.142 (0.900-1.448)	1.145 (0.902-1.453)	1.091 (0.853-1.396)
	p for trend					0.0014	0.2954	0.2862	0.5314
Proximal colon	Q1	306,036	31	1,929,424	0.016	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	306,628	37	1,850,800	0.02	1.242 (0.771-2.002)	1.093 (0.678-1.762)	1.093 (0.678-1.762)	1.092 (0.677-1.760)
	Q3	301,350	43	1,728,970	0.025	1.544 (0.973-2.450)	1.206 (0.759-1.917)	1.207 (0.759-1.919)	1.203 (0.755-1.915)
	Q4	303,681	64	1,634,801	0.039	2.426 (1.579-3.726) <sup>a)</sup>	1.704 (1.106-2.626) <sup>a)</sup>	1.711 (1.109-2.638) <sup>a)</sup>	1.710 (1.097-2.666) <sup>a)</sup>
	p for trend					<0.0001	0.009	0.0087	0.0116
Distal Colon	Q1	306,036	105	1,929,424	0.054	1 (reference)	1 (reference)	1 (reference)	1 (reference)

	Q2	306,628	101	1,850,800	0.055	1.006 (0.765-1.322)	0.902 (0.687-1.186)	0.899 (0.684-1.182)	0.895 (0.680-1.176)
	Q3	301,350	124	1,728,970	0.072	1.327 (1.023-1.721) <sup>a)</sup>	1.076 (0.829-1.397)	1.070 (0.824-1.389)	1.056 (0.812-1.373)
	Q4	303,681	149	1,634,801	0.091	1.695 (1.320-2.176) <sup>a)</sup>	1.255 (0.975-1.614)	1.241 (0.964-1.598)	1.206 (0.929-1.565)
	p for trend					<0.0001	0.0288	0.0364	0.0749
Unspecified	Q1	306,036	463	1,929,424	0.24	1 (reference)	1 (reference)	1 (reference)	1 (reference)
	Q2	306,628	491	1,850,800	0.265	1.109 (0.977-1.259)	1.015 (0.894-1.153)	1.018 (0.896-1.156)	1.023 (0.901-1.162)
	Q3	301,350	542	1,728,970	0.313	1.315 (1.162-1.489) <sup>a)</sup>	1.109 (0.979-1.256)	1.113 (0.983-1.261)	1.129 (0.996-1.280)
	Q4	303,681	560	1,634,801	0.343	1.444 (1.277-1.633) <sup>a)</sup>	1.129 (0.997-1.279)	1.135 (1.002-1.286) <sup>a)</sup>	1.181 (1.039-1.342) <sup>a)</sup>
	p for trend					<0.0001	0.0236	0.0195	0.0038

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 (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. <sup>a)</sup>Indicates statistical significance.