

Supplementary Table 2. Risk estimates for MSI-high colorectal cancer according to recent body mass index, stratified by family history of colorectal cancer, *MLH1* promoter methylation status, and mismatch repair gene mutation status*

BMI (kg/m ²), recent†	≥ 1 first-degree relative with colorectal cancer			No first-degree relative with colorectal cancer		
	Case subjects n = 80	Control subjects n = 116	OR (95% CI)	Case subjects n = 108	Control subjects n = 158	OR (95% CI)
< 18.5	1	1	0.56 (0.02 to 19.1)	0	5	Undefined
18.5–24.99	29	45	1.00 (referent)	47	48	1.00 (referent)
25–29.99	27	43	0.70 (0.29 to 1.71)	37	72	0.52 (0.27 to 1.00)
≥ 30	22	26	0.85 (0.29 to 2.47)	20	33	0.68 (0.30 to 1.55)
per 5 kg/m ² ‡	78	114	0.90 (0.60 to 1.33)	104	153	0.95 (0.70 to 1.31)
	<i>MLH1</i> promoter methylated §			<i>MLH1</i> promoter unmethylated or not tested §		
	Case subjects n = 61	Control subjects n = 89	OR (95% CI)	Case subjects n = 127	Control subjects n = 185	OR (95% CI)
< 18.5	1	3	0.54 (0.04 to 7.17)	0	3	Undefined
18.5–24.99	24	31	1.00 (referent)	52	62	1.00 (referent)
25–29.99	15	32	0.40 (0.12 to 1.31)	49	83	0.71 (0.40 to 1.28)
≥ 30	18	22	0.82 (0.28 to 2.46)	24	37	0.71 (0.32 to 1.56)
per 5 kg/m ² ‡	57	85	1.13 (0.74 to 1.72)	125	182	0.87 (0.64 to 1.19)
	MMR germline mutation §			No MMR germline mutation detected or not tested §		
	Case subjects n = 36	Control subjects n = 49	OR (95% CI)	Case subjects n = 152	Control subjects n = 225	OR (95% CI)
< 18.5	0	0	Undefined	1	6	0.18 (0.02 to 1.67)
18.5–24.99	11	15	1.00 (referent)	65	78	1.00 (referent)
25–29.99	14	24	1.16 (0.31 to 4.40)	50	91	0.61 (0.35 to 1.07)
≥ 30	10	10	3.96 (0.59 to 26.48)	32	49	0.68 (0.34 to 1.36)
per 5 kg/m ² ‡	35	49	1.06 (0.64 to 1.77)	147	218	0.98 (0.75 to 1.30)

*ORs adjusted for age, endoscopy screening, and cigarette smoking. Some counts do not add to totals because of missing information. MSI-High = microsatellite instability high; OR = odds ratio; CI = confidence interval; MMR = DNA mismatch repair.

†Calculated from self-reported height and weight approximately 1 year before colorectal cancer diagnosis for case subjects or approximately 1 year before enrollment for sibling control subjects.

‡BMI < 18.5 was excluded from the linear model.

§ Methods and procedures for *MLH1* promoter methylation testing and detection of MMR germline mutations are described in Poynter et al, Cancer Epidemiol Biomarkers Prev 2008; 17(11):3208-15 (reference 4 in text).