Supplemental Table S6. 10-year E/O CRC case ratio in the GERA European-ancestral participants. We demonstrated the comparison of expected (E) and observed (O) CRC cases based on the PRS-enhanced model (including age, first-degree CRC family history, sex, endoscopy history and polygenic risk score) in the 10-year follow-up via E/O ratio and the corresponding 95% confidence intervals in GERA European ancestry participants. The number of expected cases was calculated based on age, first-degree CRC family history, sex, endoscopy history and polygenic risk score (PRS); The number of observed cases was based on diagnosed cases in the cohort.

Stratum	E	O	E/O (95% CI)
Overall	519.33	519	1.00 (0.92, 1.09)
Age at study entry, years			
40-49	27.10	19	1.43 (0.91, 2.24)
50-59	88.30	62	1.42 (1.11, 1.83)
>=60	403.93	438	0.92 (0.84, 1.01)
First-degree CRC family History[a]			
Negative	467.05	451	1.04 (0.94, 1.14)
Positive	52.28	68	0.77 (0.61, 0.98)
Sex			
Women	269.29	293	0.92 (0.82, 1.03)
Men	250.04	226	1.11 (0.97, 1.26)
Endoscopy history[b]			
No	231.61	238	0.97 (0.86, 1.10)
Yes	287.72	281	1.02 (0.91, 1.15)
a. Family history of ascertained from study survey questionnaires and electronic health records.			
b. Endoscopy history within 10 years prior to study entry.			