

## Supplementary Online Content

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**eTable 1.** Histopathology and *International Classification of Diseases (ICD)* to Identify Colorectal Cancer

**eTable 2.** Characteristics of Excluded Cases and Controls Due to Lack of Birth Records, Sweden, 1991-2017

**eTable 3.** E-Values for the Association Between Birth via Cesarean Delivery and Risk of Early-Onset Colorectal Cancer

**eTable 4.** Birth via Cesarean Delivery and Risk of Early-Onset Colorectal Cancer According to Anatomic Site

**eFigure.** Flow Chart of Study Population

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable 1. Histopathology and International Classification of Diseases (ICD) to identify colorectal cancer**

		<b>Colorectal cancer (CRC)</b>
<b>Histopathology</b>	<b>Anatomic location</b>	T67X (colon), T671-674 (proximal colon), T675-677 (distal colon), T68X (rectum)
	<b>Histologic features (morphology codes)</b>	M81400, M81401, M81402, M81403, M814031, M814032, M814033, M81404, M81406, M814062, M81407, M81409, M814093, M81443, M81453
<b>Diagnostic codes from the Swedish Patient Register</b>	<b>ICD-7/8/9</b>	153.X, 154.X
	<b>ICD-10</b>	C18, C19, C20

Abbreviation: ICD, international classification of disease

**eTable 2. Characteristics of excluded cases and controls due to lack of birth records, Sweden (1991-2017).**

Characteristics	Cases, No. (%)	Controls without birth records, No. (%)	Controls matched to cases without birth records, No. (%)
Total No.	141	803	526
Age at index date, y			
Mean (SD)	32.8 (5.6)	33.8 (5.6)	32.7 (5.8)
Sex			
Female	63 (44.7)	404 (50.3)	225 (42.8)
Male	78 (55.3)	399 (49.7)	301 (57.2)
Year of birth			
1973-1979	102 (72.3)	577 (71.9)	385 (73.2)
1980-1989	34 (24.1)	209 (26.0)	120 (22.8)
1990-1997	5 (3.55)	17 (2.12)	21 (3.99)
Year at index date			
1993-2002	5 (3.6)	21 (2.6)	22 (4.2)
2003-2012	70 (49.6)	357 (44.5)	260 (49.4)
2013-2017	66 (46.8)	425 (52.9)	244 (46.4)
Country of birth			
Sweden	4 (2.8)	24 (3.0)	526 (100)
Nordic except Sweden	3 (2.1)	37 (4.6)	-
Non-Nordic	134 (95.0)	742 (92.4)	-

Abbreviation: SD, standard deviation.

**eTable 3. E-values for the association between birth via cesarean delivery and risk of early-onset colorectal cancer.**

	aOR (95% CI) <sup>a</sup>	E-Value (Point Estimate)	E-Value (Confidence Interval) <sup>b</sup>
<b>All participants</b>	1.28 (0.91-1.79)	1.88	1.00
<b>Females</b>	1.62 (1.01-2.60)	2.62	1.11
<b>Males</b>	1.05 (0.64-1.72)	1.28	1.00

<sup>a</sup> aORs were from model 2 in Table 3. The E-value quantifies the minimum strength of association required between an unmeasured confounder and both exposure and outcome, with consideration of measured covariates, to nullify the observed exposure-outcome associations. E-values were calculated using a publicly available and validated online calculator.

<sup>b</sup> E-values for the confidence interval limit closest to the null.

Abbreviation: aOR, adjusted odds ratio; CI, confidence interval.

**eTable 4. Birth via cesarean delivery and risk of early-onset colorectal cancer according to anatomic site.**

	Vaginal delivery	Cesarean delivery
<b>Females</b>		
<b>Colon cancer</b>		
Cases:Controls, No.	186:727	26:65
aOR (95% CI) <sup>a</sup>	1 [Reference]	1.77 (1.05-3.01)
<b>Rectal cancer</b>		
Cases:Controls, No.	63:264	5:20
aOR (95% CI) <sup>a</sup>	1 [Reference]	1.29 (0.42-4.02)
<b>Males</b>		
<b>Colon cancer</b>		
Cases:Controls, No.	181:706	17:64
aOR (95% CI) <sup>a</sup>	1 [Reference]	1.04 (0.58-1.85)
<b>Rectal cancer</b>		
Cases:Controls, No.	79:308	7:26
aOR (95% CI) <sup>a</sup>	1 [Reference]	1.01 (0.38-2.67)

<sup>a</sup>The model was conditioned on matching factors, including age at index date (continuous), sex, calendar year of index date (continuous), and county of residence, and additionally adjusted for maternal and pregnancy-related factors: maternal history of cesarean delivery (yes, no), maternal age at delivery ( $\leq 24$ , 25-29, 30-34,  $\geq 35$ ), maternal country of birth (Nordic, non-Nordic), living with partner (yes, no), maternal educational level (elementary, secondary, college), and parity (1,2,3,  $\geq 4$ ).

Abbreviation: aOR: adjusted odds ratio; CI: confidence interval.

**eFigure. Flow chart of study population.**

