Supplementary appendix

Supplement to: Overall and stage-specific survival of patients with screen-detected colorectal cancer in European countries: a population-based study in 9 countries

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Numbers of cases with unknown cause of death that were excluded from CRC-specific survival analyses

England: among all CRC patients, regardless of mode of detection – 1752 (2.7% of deaths); among patients with screen-detected CRC – 259 (4.9% of deaths); among patients with non-screen-detected CRC – 1493 (2.5% of deaths).

Ireland: cause of death information was available for all deceased patients.

Italy (Turin): among all CRC patients, regardless of mode of detection – 60 (6.6% of deaths); among patients with screen-detected CRC – 7 (11.7% of deaths); among patients with non-screen-detected CRC – 53 (6.2% of deaths).

Slovenia: among all CRC patients, regardless of mode of detection – 13 (0.8% of deaths); among patients with screen-detected CRC – 2 (0.7% of deaths); among patients with non-screen-detected CRC – 11 (0.8% of deaths).

Spain (Basque Country, Girona, and Tarragona): among all CRC patients, regardless of mode of detection: 143 (5.7% of deaths); among patients with screen-detected CRC – 10 (2.8% of deaths); among patients with non-screen-detected CRC – 133 (6.2% of deaths).

Appendix Table 1. Data sources and data quality indicators.

Country/region (year/s of diagnosis)	Data source	% Microscopically verified cases [a]	% DCO [a]	Level of completeness (%) [a]	National/regional coverage (%)
Belgium (2009-2016)	Belgian Cancer Registry https://kankerregister.org	96.5 [b]	-	>95	100
Denmark (2014-2018)	Danish Cancer Registry www.sundhedsdatastyrelsen.dk; Danish Colorectal Cancer Group Database	95	0.1-0.9	97	100
England (2006-2015)	National Cancer Registration and Analysis Service, Public Health England https://www.gov.uk/government/organisations/public-health-england	83-85	0.5-4	>98	100
France					
Burgundy (2003-2014)	Digestive cancer registry of Burgundy				
Calvados (2004-2016)	Digestive tumours registry of Calvados				
Doubs (2008-2016)	Cancer registry of Doubs	90-95	-	>95	National:15
Finistere (2004-2016)	Digestive tumours registry of Finistere				
Isere (2002-2016)	Cancer registry of Isere				
Ireland (2012-2016)	National Cancer Registry Ireland (NCRI) https://www.ncri.ie	83.7-92.2	0.4-3.6	97.2 [c]	100
Italy					
Turin (2003-2014)	Piedmont Cancer Registry https://www.cpo.it/en/data/cancer-registries/piedmont-cancer-registry/	82.5-86.7	1.8-3.2	97.2	Regional: 23
Netherlands (2015)	Netherlands Cancer Registry, Netherlands Comprehensive Cancer Organisation (IKNL) https://www.iknl.nl/en/ncr	93	-	>95	100
Slovenia (2009-2015)	Slovenian Cancer Registry https://www.onko-i.si/eng/crs; http://www.slora.si/en/	96.0-97.1	0.1-0.5	-	100
Spain					
Basque country (2009-2015)	Basque Cancer Registry https://www.euskadi.eus/informacion/registros-de-cancer/web01-a3regepi/es/	87.4-91.1	0.4-2.8	-	Regional: 100
Girona (2013-2016)	Girona Cancer Registry http://ico.gencat.cat/ca/professionals/serveis_i_programes/registre_del_cancer/	87.1-89.4	0.5-3.9	91.3-94.9	National: 1.6
Murcia (2006-2012)	Murcia Cancer Registry http://www.murciasalud.es	91.3-93.2	0.4-1.8	92.3-97.9	National: 3.1
Tarragona (2012-2014)	Tarragona Cancer Registry https://epicancer.cat	89.8-91.4	0.3-1.6	94.4-98.0	National: 1.7

[a] Lowest and highest annual percentages for years of diagnosis included for each country/region (for all cancers apart from C44). For Belgium, Denmark, France, Italy (Turin), and Spain (Basque Country and Girona), the lowest and highest percentages refer to years of diagnosis 2000 up to the most recent year with available data (unless a different reference year is specified in the footnotes).

[b] For Belgium, the reference year for % of microscopically verified cases was 2017.

[c] For the calendar year 2010 within five years of incidence.

Appendix Table 2. Data sources and definitions of screen-detected cancers in the included countries/ regions.

Country/ region	Data on mode of detection were obtained through linkages with:	Definition of screen-detected cancer:
Belgium	- Databases from regional screening organisations and Intermutualistic Agency (IMA)	Cancer detected within 6 months after colonoscopy following a positive gFOBT/FIT result and before the next recommended screening invitation (24 months) in the context of the organised regional screening programmes.
Denmark	- Danish Colorectal Cancer Group Database - Danish Quality Database for Colon Cancer Screening	Cancer detected at colonoscopy within 2 months after a positive FIT in the context of the organised screening programme.
England	- NHS National Screening Programme database	Cancer detected through the organised gFOBT-based programme.
France (5 regions)	- Patient's medical record (general practitioners, endoscopists, gastroenterologists) [b]	Cancer detected through the organised gFOBT/FIT-based programme or through opportunistic screening. [a]
Ireland	- Patient's medical record	Cancer detected through the organised FIT-based programme or through opportunistic screening.
Italy (Turin)	- Regional screening database	Cancer detected within 9 months following a positive screening test (FIT or FS) result within the organised screening programme.
Netherlands	- Patient's medical record	Cancer detected through the organised FIT-based programme.
Slovenia	- National organised screening and early detection programme for colorectal cancer – the Svit Programme	Cancer detected through the organised FIT-based programme. [c]
Spain (4 regions)	- Regional organised screening programme databases	Cancer detected through the organised FIT-based programme.

[a] Databases relying on notifications from laboratories of pathological anatomy (cyto-histopathology registry)
[b] For Finistere, data were obtained from medical records and from the regional screening centre (and checked for consistency). Only patients with cancers detected through the organised programme (within 1 year since a positive FIT) were considered "screen-detected".
[c] In addition, data from the screening programme were cross checked with medical reports.
FIT, faecal immunochemical test; FS, flexible sigmoidoscopy; gFOBT, guaiac-based faecal occult blood test.

Appendix Table 3. Characteristics and parameters of organised colorectal cancer screening programmes in the countries/ regions included in the study.

Country/ region	Screening test	Year of programme initiation and, if applicable, termination	Age groups (years)	Screening interval (years)	Is the faecal test mailed with the invitation letter?	Has the programme been fully rolled out during the study period? If so, when?	Participation rates, i.e., number of people screened/ number of people invited (year of data collection; source)	References
Belgium (Wallonia/ Brussels)	gFOBT	2009-2016	50-74	2	No [a]	Yes, in 2009	4.5% (2014)[1]	[1-3]
	FIT	Since 2016 (March)		2	Yes		7.9% (2016) – this figure refers to both gFOBT and FIT	[2,3]
Belgium (Flanders)	FIT	Since 2013 (October)	56-74 [b]	2	Yes	Yes, in 2015	50.3% (2014);[1] 54.5% (2016)[4]	[1,2,4-6]
Denmark	FIT	Since 2014	50-74	2	Yes	Yes, in 2017	62.6% (2014-2016)[7]	[2,7]
England	gFOBT	2006-2009	60-69	2	Yes	Yes, in 2010	55.3% (2013)[1]	[1,2,8]
		Since 2010 [c]	60-74					
	Sigmoidoscopy	2013-2021 [d]	55	Once only	NA	No	43.1% (2013-2014)[8]	
France								
Burgundy	gFOBT	2003-2014	50-74	2	No [e]	Yes, in 2003	53.9-54.5% (2009-2010)[9]	[9,10]
	FIT	Since 2015	50-74	2	No [f]		Nationwide: 28.6% (2015-2016)[6]	[6]
Calvados	gFOBT	2004-2008	50-74	2	No [e]	Yes, in 2004	31.0% (2008-2009)[10]	[10]
	FIT	Since 2009	50-74	2	No [f]		30.6% (2009-2010);[9] 22.8% (2012)[1] Nationwide: 28.6% (2015-2016)[6]	[1,6,9,10]
Doubs	gFOBT	2008-2014	50-74	2	No [e]	Yes, in 2008	39.9% (2009-2010)[9]	[9]
	FIT	Since 2015	50-74	2	No [f]		Nationwide: 28.6% (2015-2016)[6]	[6]
Finistere	gFOBT	2004-2014	50-74	2	No [e]	Yes, in 2004	33.4% (2009-2010)[9]	[9,10]
	FIT	Since 2015	50-74	2	No [f]		Nationwide: 28.6% (2015-2016)[6]	[6]
Isere	gFOBT	2002-2014	50-74	2	No [e]	Yes, in 2002	44.9% (2009-2010)[9]	[9,10]
	FIT	Since 2015	50-74	2	No [f]		Nationwide: 28.6% (2015-2016)[6]	[6]
Ireland	FIT	Since 10/2012	60-69 [g]	2	Yes	Yes, in 2015	43.1% (2012-2013); 40.4% (2014); 39.2% (2015)[11]	[2,11]
Italy (Turin)	Sigmoidoscopy (alternatively FIT for non-responders)	Since 2003	58 (58-69)	Once-only (2)	No	Yes, in 2003	Sigmoidoscopy: 24.5%; Sigmoidoscopy + FIT: 37.3% (2013)[1]	[1,2,12]
Netherlands	FIT	Since 2014	55-75 [h]	2	Yes	No	71.3% (2014);[1] 72.6% (2015)[13]	[1,2,13,14]
Slovenia	FIT	Since 2009	50-69 (since 2015 the upper age limit is 74)	2	Yes	Yes, in 2011	50.5% (2011-2012)[1]; 59.7% (2015)[15]	[1,2,15,16]
Spain								
Basque Country	FIT	Since 2009	50-69	2	Yes	Yes, in 2014	68.4% (2009-2014)[17]	[17]
Girona	FIT	Since 2013	50-69	2	Yes	No	33.0% (2013-2020)[18]	[18]
Murcia	FIT	Since 2006	50-69	2	Yes	No	47.1-49.2% (2006-2013)[19]	[19]
Tarragona	FIT	Since 2012	50-69	2	Yes	No	54.5% (2012-2013) [i]	[i]

[a] From March 2015 on, the test kit was sent together with the invitation letter to individuals who participated in previous rounds.

[b] In October – December 2013, only 66-74-year-olds were invited to FIT screening in Flanders.

[c] In England, FIT replaced gFOBT across all screening hubs in June 2019.

[d] NHS announced in January 2021 that flexible sigmoidoscopy will no longer be offered. People who had been invited and who had not had their appointment yet will be sent a FIT kit from April 2021.

Notes to Appendix Table 3. Continued.

[e] Individuals who did not complete the test after invitation and reminder were sent the test by mail.

[f] France has meanwhile decided to send the FIT kit with the first reminder to individuals who participated in previous rounds.

[g] In Ireland, the programme will be expanded to include 55-74-year-olds.

[h] In the Netherlands, in 2015, the target population only included individuals aged 61, 63, 65, 67, 69 and 75 years.

[i] Data not published (provided by contact person at Tarragona Cancer Registry).

FIT, faecal immunochemical test; gFOBT, guaiac-based faecal occult blood test; NA, not applicable.

Appendix Table 4. Demographic and tumour characteristics of colorectal cancer patients by mode of detection and country.

Characteristic	Belgium (2009-2016)				Denmark (2014-2018)			
	All cases	Screen-detected cases	Non-screen-detected cases	p-value	All cases	Screen-detected cases	Non-screen-detected cases	p-value
Total	34 246	3866 (11.3%)	30 380 (88.7%)	-	13 790	4290 (31.1%)	9500 (68.9%)	-
Sex								
Male	20 831 (60.8%)	2538 (65.6%)	18 293 (60.2%)	<0.0001	8045 (58.3%)	2554 (59.5%)	5491 (57.8%)	0.056
Female	13 415 (39.2%)	1328 (34.4%)	12 087 (39.8%)		5745 (41.7%)	1736 (40.5%)	4009 (42.2%)	
Age at diagnosis (years)								
50-54	2968 (8.7%)	36 (0.9%)	2932 (9.7%)	<0.0001	1051 (7.6%)	332 (7.7%)	719 (7.6%)	0.056
55-59	5005 (14.6%)	487 (12.6%)	4518 (14.9%)		1610 (11.7%)	457 (10.7%)	1153 (12.1%)	
60-64	7526 (22.0%)	935 (24.2%)	6591 (21.7%)		2547 (18.5%)	836 (19.5%)	1711 (18.0%)	
65-69	9071 (26.5%)	1097 (28.4%)	7974 (26.2%)		3873 (28.1%)	1199 (27.9%)	2674 (28.1%)	
70-74	9676 (28.3%)	1311 (33.9%)	8365 (27.5%)		4709 (34.1%)	1466 (34.2%)	3243 (34.1%)	
Tumour location								
Proximal colon	9144 (26.7%)	827 (9.0%)	8317 (27.4%)	<0.0001	3709 (26.9%)	1044 (24.3%)	2660 (28.0%)	<0.0001
Distal colon	12 821 (37.4%)	1963 (50.8%)	10 858 (35.7%)		4928 (35.7%)	1878 (43.8%)	3050 (32.1%)	
Rectum	11 597 (33.9%)	1043 (27.0%)	10 554 (34.7%)		4881 (35.4%)	1325 (30.9%)	3556 (37.4%)	
Overlapping or unspecific	684 (2.0%)	33 (0.9%)	651 (2.1%)		277 (2.0%)	43 (1.0%)	234 (2.5%)	
Stage at diagnosis								
I	8480 (26.3%)	1913 (51.3%)	6567 (23.0%)	<0.0001	2622 (23.5%)	1286 (37.9%)	1336 (17.2%)	<0.0001
II	8350 (25.9%)	734 (19.7%)	7616 (26.7%)		2967 (26.6%)	893 (26.3%)	2074 (26.7%)	
III	8668 (26.8%)	836 (22.4%)	7832 (27.5%)		2938 (26.3%)	894 (26.4%)	2044 (26.3%)	
IV	6735 (20.9%)	247 (6.6%)	6488 (22.8%)		2640 (23.6%)	319 (9.4%)	2321 (29.9%)	

*(**Appendix Table 4** continues on next page)*

Appendix Table 4. Continued.

Characteristic	England (2006-2015)				France, 5 regions (2002-2016) [c]			
	All cases	Screen-detected cases	Non-screen-detected cases	p-value	All cases	Screen-detected cases	Non-screen-detected cases	p-value
Total	131 488	23 183 (17.6%)	108 305 (82.4%)	-	18 187	3477 (19.1%)	14 710 (80.9%)	-
Sex								
Male	80 240 (61.0%)	15 360 (66.3%)	64 880 (59.9%)	<0.0001	11 287 (62.1%)	2188 (62.9%)	9099 (61.9%)	0.24
Female	51 248 (39.0%)	7823 (33.7%)	43 425 (40.1%)		6900 (37.9%)	1289 (37.1%)	5611 (38.1%)	
Age at diagnosis (years)								
50-54	-	-	-	-	1758 (9.7%)	299 (8.6%)	1459 (9.9%)	0.0007
55-59	-	-	-	-	2908 (16.0%)	497 (14.3%)	2411 (16.4%)	
60-64	36 686 (44.8%)	8081 (46.8%)	28 605 (44.3%)	<0.0001	3777 (20.8%)	726 (20.9%)	3051 (20.7%)	
65-69	45 118 (55.1%)	9176 (53.2%)	35 942 (55.7%)		4579 (25.2%)	937 (26.9%)	3642 (24.8%)	
70-74	49 684 [a]	5926 [a]	43 758 [a]	- [a]	5165 (28.4%)	1018 (29.3%)	4147 (28.2%)	
Tumour location								
Proximal colon	39 055 (29.7%)	5368 (23.2%)	33 687 (31.1%)	<0.0001	5348 (29.4%)	982 (28.2%)	4366 (29.7%)	<0.0001
Distal colon	37 890 (28.8%)	9106 (39.3%)	28 784 (26.6%)		5685 (31.3%)	1307 (37.6%)	4378 (29.8%)	
Rectum	48 647 (37.0%)	8350 (36.0%)	40 297 (37.2%)		6948 (38.2%)	1169 (33.6%)	5779 (39.3%)	
Overlapping or unspecific	5896 (4.5%)	359 (1.5%)	5537 (5.1%)		206 (1.1%)	19 (0.6%)	187 (1.3%)	
Stage at diagnosis								
I	10 094 (20.9%) [b]	4236 (36.6%) [b]	5858 (16.0%) [b]	<0.0001	4523 (25.7%)	1509 (44.1%)	3014 (21.3%)	<0.0001
II	12 206 (25.3%) [b]	2999 (25.9%) [b]	9207 (25.1%) [b]		4249 (24.2%)	812 (23.7%)	3437 (24.3%)	
III	14 475 (30.0%) [b]	3417 (29.5%) [b]	11 058 (30.2%) [b]		4133 (23.5%)	773 (22.6%)	3360 (23.7%)	
IV	11 466 (23.8%) [b]	921 (8.0%) [b]	10 545 (28.8%) [b]		4664 (26.5%)	325 (9.5%)	4339 (30.7%)	

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Appendix Table 4. Continued.

Characteristic	Ireland (2012-2016)				Italy, Turin (2003-2014)			
	All cases	Screen-detected cases	Non-screen-detected cases	p-value	All cases	Screen-detected cases	Non-screen-detected cases	p-value
Total	3571	610 (17.1%)	2961 (82.9%)	-	2433	359 (14.8%)	2074 (85.2%)	-
Sex								
Male	2249 (63.0%)	399 (65.4%)	1850 (62.5%)	0.17	1384 (56.9%)	217 (60.4%)	1167 (56.3%)	0.14
Female	1322 (37.0%)	211 (34.6%)	1111 (37.5%)		1049 (43.1%)	142 (39.6%)	907 (43.7%)	
Age at diagnosis (years)								
50-54	-	-	-	-	-	-	-	0.034
55-59	-	-	-	-	-	-	-	
60-64	1579 (44.2%)	237 (38.9%)	1342 (45.3%)	0.0034	1189 (48.9%) [d]	194 (54.0%) [d]	995 (48.0%) [d]	
65-69	1992 (55.8%)	373 (61.1%)	1619 (54.7%)		1244 (51.1%)	165 (46.0%)	1079 (52.0%)	
70-74	-	-	-	-	-	-	-	
Tumour location								
Proximal colon	1071 (30.0%)	163 (26.7%)	908 (30.7%)	<0.0001	664 (27.3%)	82 (22.8%)	582 (28.1%)	0.034
Distal colon	1065 (29.8%)	249 (40.8%)	816 (27.6%)		770 (31.6%)	134 (37.3%)	636 (30.7%)	
Rectum	1317 (36.9%)	185 (30.3%)	1132 (38.2%)		642 (26.4%)	86 (24.0%)	556 (26.8%)	
Overlapping or unspecific	118 (3.3%)	13 (2.1%)	105 (3.5%)		357 (14.7%)	57 (15.9%)	300 (14.5%)	
Stage at diagnosis								
I	488 (17.1%)	174 (35.7%)	314 (13.2%)	<0.0001	-	-	-	-
II	638 (22.3%)	117 (24.0%)	521 (22.0%)		-	-	-	
III	1022 (35.8%)	155 (31.8%)	867 (36.6%)		-	-	-	
IV	709 (24.8%)	41 (8.4%)	668 (28.2%)		-	-	-	

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Appendix Table 4. Continued.

Characteristic	Netherlands (2015)				Slovenia (2009-2015)			
	All cases	Screen-detected cases	Non-screen-detected cases	p-value	All cases	Screen-detected cases	Non-screen-detected cases	p-value
Total	9461	3848 (40.7%)	5613 (59.3%)	-	4620	1792 (38.8%)	2828 (61.2%)	-
Sex								
Male	5748 (60.8%)	2390 (62.1%)	3358 (59.8%)	0.025	3029 (65.6%)	1138 (63.5%)	1891 (66.9%)	0.019
Female	3713 (39.2%)	1458 (37.9%)	2255 (40.2%)		1591 (34.4%)	654 (36.5%)	937 (33.1%)	
Age at diagnosis (years)								
50-54	-	-	-	-	716 (15.5%)	330 (18.4%)	386 (13.7%)	<0.0001
55-59	-	-	-	-	1005 (21.8%)	362 (20.2%)	643 (22.7%)	
60-64	2449 (25.9%)	1163 (30.2%)	1286 (22.9%)	<0.0001	1397 (30.2%)	579 (32.3%)	818 (28.9%)	
65-69	3888 (41.1%)	2155 (56.0%)	1733 (30.9%)		1502 (32.5%)	521 (29.1%)	981 (34.7%)	
70-74	3124 (33.0%) [e]	530 (13.8%) [e]	2594 (46.2%) [e]		-	-	-	-
Tumour location								
Proximal colon	2737 (28.9%)	894 (23.2%)	1843 (32.8%)	<0.0001	1086 (23.5%)	349 (19.5%)	737 (26.1%)	<0.0001
Distal colon	3685 (38.9%)	1829 (47.5%)	1856 (33.1%)		1541 (33.4%)	720 (40.2%)	821 (29.0%)	
Rectum	2894 (30.6%)	1082 (28.1%)	1812 (32.3%)		1970 (42.6%)	719 (40.1%)	1251 (44.2%)	
Overlapping or unspecific	145 (1.5%)	43 (1.1%)	102 (1.8%)		23 (0.5%)	4 (0.2%)	19 (0.7%)	
Stage at diagnosis								
I	2969 (31.8%)	1884 (49.7%)	1085 (19.6%)	<0.0001	1298 (29.6%)	825 (48.5%)	473 (17.6%)	<0.0001
II	2074 (22.2%)	738 (19.5%)	1336 (24.2%)		1098 (25.0%)	351 (20.6%)	747 (27.8%)	
III	2683 (28.8%)	950 (25.0%)	1733 (31.3%)		1105 (25.2%)	394 (23.2%)	711 (26.5%)	
IV	1598 (17.1%)	221 (5.8%)	1377 (24.9%)		886 (20.2%)	130 (7.6%)	756 (28.1%)	

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Characteristic	Spain, 4 regions (2006-2016) [f]			
	All cases	Screen-detected cases	Non-screen-detected cases	p-value
Total	10 338	2867 (27.7%)	7471 (72.3%)	-
Sex				
Male	6689 (64.7%)	1893 (66.0%)	4796 (64.2%)	0.081
Female	3649 (35.3%)	974 (34.0%)	2675 (35.8%)	
Age at diagnosis (years)				
50-54	1566 (15.1%)	444 (15.5%)	1122 (15.0%)	0.43
55-59	2272 (22.0%)	654 (22.8%)	1618 (21.7%)	
60-64	2931 (28.4%)	787 (27.5%)	2144 (28.7%)	
65-69	3569 (34.5%)	982 (34.3%)	2587 (34.6%)	
70-74	-	-	-	-
Tumour location				
Proximal colon	2420 (23.4%)	562 (19.6%)	1858 (24.9%)	<0.0001
Distal colon	3864 (37.4%)	1350 (47.1%)	2514 (33.7%)	
Rectum	3488 (33.7%)	869 (30.3%)	2619 (35.1%)	
Overlapping or unspecific	566 (5.5%)	86 (3.0%)	480 (6.4%)	
Stage at diagnosis				
I	2487 (28.9%) [g]	1356 (50.9%) [g]	1131 (19.1%) [g]	<0.0001
II	1948 (22.7%) [g]	480 (18.0%) [g]	1468 (24.7%) [g]	
III	2546 (29.6%) [g]	645 (24.2%) [g]	1901 (32.0%) [g]	
IV	1613 (18.8%) [g]	181 (6.8%) [g]	1432 (24.1%) [g]	

[a] In England, screening was extended to the age group 70-74 years in 2010 only. Therefore, this age group was excluded from the statistical analysis (Chi square test).

[b] For England, data on stage were only available from 2012 onwards. Therefore, patients diagnosed in 2009-2011 were not included in analyses of stage.

[c] The specific years for which data were included for each French region are provided in Table 1.

[d] Age group 58-64 years.

[e] Age group 70-75 years.

[f] The specific years for which data were included for each Spanish region are provided in Table 1.

[g] For analyses of stage, patients diagnosed in the Basque country in 2009 (> 85% with unknown stage) were not included.

Appendix Table 5. Last follow-up dates, median follow-up time and interquartile range by country/region.

Country/region (year/s of diagnosis)	Last follow-up date	Median follow-up time in years (interquartile range)	
		Overall survival	**CRC-specific survival**
All included countries [a]	-	**All cases** Total: 4.1 (2.0-7.2) Stage I: 4.1 (2.8-5.9) Stage II: 4.3 (2.9-6.0) Stage III: 3.8 (2.4-5.6) Stage IV: 1.4 (0.5-2.8) **Screen-detected cases** Total: 4.5 (2.8-7.4) Stage I: 3.7 (2.6-5.5) Stage II: 4.0 (2.8-5.5) Stage III: 3.7 (2.5-5.3) Stage IV: 2.3 (1.2-3.6) **Non-screen-detected cases** Total: 3.9 (1.6-7.1) Stage I: 4.5 (3.1-6.2) Stage II: 4.5 (2.9-6.1) Stage III: 3.9 (2.4-5.7) Stage IV: 1.3 (0.4-2.7)	**All cases** Total: 4.7 (2.0-7.8) Stage I: 4.7 (3.6-5.9) Stage II: 4.6 (3.5-5.8) Stage III: 4.2 (3.0-5.5) Stage IV: 1.1 (0.3-2.6) **Screen-detected cases** Total: 5.7 (3.8-8.0) Stage I: 4.7 (3.6-5.9) Stage II: 4.7 (3.6-5.9) Stage III: 4.4 (3.4-5.7) Stage IV: 2.6 (1.3-4.3) **Non-screen-detected cases** Total: 4.2 (1.5-7.7) Stage I: 4.6 (3.6-5.9) Stage II: 4.5 (3.4-5.8) Stage III: 4.0 (2.7-5.4) Stage IV: 1.0 (0.3-2.4)
Belgium (2009-2016)	July 2018	**All cases** Total: 3.8 (2.1-6.0) Stage I: 4.2 (2.8-6.3) Stage II: 4.6 (2.8-6.8) Stage III: 4.1 (2.4-6.3) Stage IV: 1.8 (0.8-3.3) **Screen-detected cases** Total: 3.3 (2.4-4.1) Stage I: 3.4 (2.5-4.1) Stage II: 3.4 (2.3-4.2) Stage III: 3.3 (2.4-4.1) Stage IV: 2.3 (1.6-3.4) **Non-screen-detected cases** Total: 3.9 (2.0-6.3) Stage I: 4.8 (3.1-6.9) Stage II: 4.9 (2.9-7.0) Stage III: 4.3 (2.4-6.5) Stage IV: 1.8 (0.8-3.3)	Not applicable
Denmark (2014-2018)	December 2018	**All cases** Total: 2.1 (1.0-3.5) Stage I: 2.3 (1.2-3.6) Stage II: 2.6 (1.4-3.8) Stage III: 2.3 (1.2-3.6) Stage IV: 1.1 (0.4-2.1) **Screen-detected cases** Total: 2.1 (1.2-3.2) Stage I: 2.1 (1.2-3.2) Stage II: 2.1 (1.2-3.4) Stage III: 2.1 (1.2-3.2) Stage IV: 1.5 (0.9-2.6) **Non-screen-detected cases** Total: 2.1 (0.9-3.6) Stage I: 2.7 (1.2-3.9) Stage II: 2.8 (1.5-4.0) Stage III: 2.4 (1.2-3.7) Stage IV: 1.0 (0.4-2.0)	Not applicable
England (2006-2015)	December 2018	**All cases** Total: 4.6 (1.6-7.9) Stage I: 4.8 (3.8-5.9) Stage II: 4.6 (3.5-5.8) Stage III: 4.2 (3.1-5.5) Stage IV: 1.0 (0.3-2.3) **Screen-detected cases** Total: 5.9 (4.0-8.0) Stage I: 4.9 (3.9-6.0) Stage II: 4.8 (3.8-5.9) Stage III: 4.5 (3.5-5.7) Stage IV: 2.4 (1.2-4.3) **Non-screen-detected cases** Total: 4.2 (1.2-7.9) Stage I: 4.7 (3.7-5.9) Stage II: 4.5 (3.4-5.8) Stage III: 4.0 (2.6-5.4) Stage IV: 0.9 (0.2-2.2)	**All cases** Total: 4.6 (1.6-7.9) Stage I: 4.8 (3.8-5.9) Stage II: 4.6 (3.5-5.8) Stage III: 4.2 (3.0-5.5) Stage IV: 1.0 (0.2-2.3) **Screen-detected cases** Total: 5.9 (4.0-8.0) Stage I: 4.9 (3.9-6.0) Stage II: 4.8 (3.8-5.9) Stage III: 4.5 (3.5-5.7) Stage IV: 2.4 (1.2-4.3) **Non-screen-detected cases** Total: 4.2 (1.2-7.9) Stage I: 4.7 (3.7-5.9) Stage II: 4.5 (3.4-5.8) Stage III: 4.0 (2.5-5.4) Stage IV: 0.9 (0.2-2.1)

*(**Appendix Table 5** continues on next page)*

Appendix Table 5. Continued.

Country/region (year/s of diagnosis)	Last follow-up date	Median follow-up time in years (interquartile range)	
		Overall survival	**CRC-specific survival**
France, 5 regions	-	**All cases**	Not applicable
Burgundy (2003-2016)	March 2019	Total: 4.4 (1.9-8.4)	
Calvados (2004-2016)	March 2019	Stage I: 6.5 (3.5-10.0)	
Doubs (2008-2016)	March 2019	Stage II: 6.2 (3.4-9.8)	
Finistere (2004-2016)	April 2019	Stage III: 5.3 (2.8-9.1)	
Isere (2002-2016)	April 2019	Stage IV: 1.6 (0.6-3.0)	
		Screen-detected cases	
		Total: 6.5 (3.0-9.8)	
		Stage I: 7.1 (3.7-10.4)	
		Stage II: 7.2 (4.0-10.3)	
		Stage III: 6.3 (3.4-9.6)	
		Stage IV: 2.4 (1.4-4.0)	
		Non-screen-detected cases	
		Total: 3.9 (1.7-7.8)	
		Stage I: 6.2 (3.4-9.8)	
		Stage II: 5.9 (3.2-9.6)	
		Stage III: 5.1 (2.7-8.8)	
		Stage IV: 1.5 (0.6-2.9)	
Ireland (2012-2016)	December 2018	**All cases**	**All cases**
		Total: 3.4 (2.2-4.9)	Total: 3.4 (2.2-4.9)
		Stage I: 3.7 (2.8-5.0)	Stage I: 3.7 (2.8-5.0)
		Stage II: 3.9 (2.8-5.4)	Stage II: 3.9 (2.8-5.4)
		Stage III: 3.7 (2.6-5.0)	Stage III: 3.7 (2.6-5.0)
		Stage IV: 1.3 (0.4-2.6)	Stage IV: 1.3 (0.4-2.6)
		Screen-detected cases	**Screen-detected cases**
		Total: 3.3 (2.5-4.2)	Total: 3.3 (2.5-4.2)
		Stage I: 3.2 (2.5-4.0)	Stage I: 3.2 (2.5-4.0)
		Stage II: 3.2 (2.6-4.2)	Stage II: 3.2 (2.6-4.2)
		Stage III: 3.2 (2.5-4.0)	Stage III: 3.2 (2.5-4.0)
		Stage IV: 2.4 (1.6-3.4)	Stage IV: 2.4 (1.6-3.4)
		Non-screen-detected cases	**Non-screen-detected cases**
		Total: 3.4 (2.1-5.1)	Total: 3.4 (2.1-5.1)
		Stage I: 4.2 (2.9-5.5)	Stage I: 4.2 (2.9-5.5)
		Stage II: 4.1 (2.9-5.6)	Stage II: 4.1 (2.9-5.6)
		Stage III: 3.8 (2.6-5.2)	Stage III: 3.8 (2.6-5.2)
		Stage IV: 1.2 (0.4-2.5)	Stage IV: 1.2 (0.4-2.5)
Italy, Turin (2003-2014)	December 2016 (December 2015 with cause of death information)	**All cases** Total: 5.3 (2.1-9.1) **Screen-detected cases** Total: 7.4 (4.7-9.9) **Non-screen-detected cases** Total: 4.8 (1.9-8.9)	**All cases** Total: 4.9 (2.0-8.6) **Screen-detected cases** Total: 6.5 (3.9-9.1) **Non-screen-detected cases** Total: 4.4 (1.8-8.5)
Netherlands (2015)	February 2018	**All cases**	Not applicable
		Total: 2.4 (2.2-2.8)	
		Stage I: 2.5 (2.3-2.8)	
		Stage II: 2.5 (2.3-2.8)	
		Stage III: 2.5 (2.2-2.8)	
		Stage IV: 1.3 (0.4-2.3)	
		Screen-detected cases	
		Total: 2.5 (2.3-2.8)	
		Stage I: 2.5 (2.3-2.8)	
		Stage II: 2.6 (2.3-2.8)	
		Stage III: 2.5 (2.2-2.8)	
		Stage IV: 2.2 (1.3-2.6)	
		Non-screen-detected cases	
		Total: 2.4 (1.9-2.7)	
		Stage I: 2.6 (2.3-2.8)	
		Stage II: 2.5 (2.2-2.8)	
		Stage III: 2.5 (2.2-2.8)	
		Stage IV: 1.2 (0.4-2.2)	

Appendix Table 5. Continued.

Country/region (year/s of diagnosis)	Last follow-up date	Median follow-up time in years (interquartile range)	
		Overall survival	**CRC-specific survival**
Slovenia (2009-2015)	February 2019 (December 2017 with cause of death information)	**All cases** Total: 5.2 (2.6-7.7) Stage I: 6.7 (4.6-8.2) Stage II: 6.2 (4.2-8.3) Stage III: 5.2 (3.2-7.7) Stage IV: 1.3 (0.4-2.9) **Screen-detected cases** Total: 6.2 (4.2-7.8) Stage I: 6.5 (4.6-7.9) Stage II: 6.1 (4.7-7.9) Stage III: 6.2 (3.9-7.8) Stage IV: 2.4 (1.2-4.3) **Non-screen-detected cases** Total: 4.2 (1.4-7.6) Stage I: 7.0 (4.6-8.9) Stage II: 6.3 (3.9-8.7) Stage III: 4.6 (2.5-7.6) Stage IV: 1.2 (0.3-2.7)	**All cases** Total: 4.4 (2.3-6.7) Stage I: 6.7 (4.6-8.2) Stage II: 6.2 (4.2-8.3) Stage III: 5.2 (3.2-7.8) Stage IV: 1.3 (0.4-2.9) **Screen-detected cases** Total: 5.1 (3.3-6.8) Stage I: 5.5 (3.7-6.9) Stage II: 5.1 (3.9-6.8) Stage III: 5.2 (3.3-6.8) Stage IV: 2.2 (1.2-4.0) **Non-screen-detected cases** Total: 3.6 (1.4-6.6) Stage I: 7.0 (4.5-8.9) Stage II: 6.3 (3.9-8.7) Stage III: 4.7 (2.5-7.6) Stage IV: 1.2 (0.3-2.7)
Spain, 4 regions Basque Country (2009-2015) Girona (2013-2016) Murcia (2006-2012) Tarragona (2012-2014)	- June 2019 December 2018 January 2020 December 2016	**All cases** Total: 3.8 (2.3-5.7) Stage I: 4.2 (2.9-5.8) Stage II: 4.5 (2.9-5.9) Stage III: 3.9 (2.6-5.6) Stage IV: 1.6 (0.6-3.2) **Screen-detected cases** Total: 3.6 (2.6-5.1) Stage I: 3.7 (2.8-5.2) Stage II: 3.9 (2.7-5.3) Stage III: 3.6 (2.6-5.2) Stage IV: 2.5 (1.5-3.6) **Non-screen-detected cases** Total: 3.9 (2.1-5.8) Stage I: 4.9 (3.2-6.2) Stage II: 4.8 (3.0-6.0) Stage III: 4.1 (2.6-5.7) Stage IV: 1.5 (0.5-3.1)	**All cases** Total: 3.5 (2.3-5.1) Stage I: 3.7 (2.8-5.0) Stage II: 3.9 (2.7-5.1) Stage III: 3.6 (2.6-4.9) Stage IV: 1.6 (0.6-3.1) **Screen-detected cases** Total: 3.4 (2.6-4.7) Stage I: 3.6 (2.8-4.8) Stage II: 3.6 (2.7-4.9) Stage III: 3.4 (2.5-4.6) Stage IV: 2.5 (1.5-3.6) **Non-screen-detected cases** Total: 3.6 (2.1-5.3) Stage I: 4.0 (2.9-5.5) Stage II: 4.0 (2.8-5.4) Stage III: 3.7 (2.6-4.9) Stage IV: 1.5 (0.5-3.0)

[a] For all countries combined, only data from patients aged 60-69 years at diagnosis were included as this was the target group of screening across all included countries.

Appendix Table 6. Overall survival of colorectal cancer patients at 3 and 5 years after diagnosis according to mode of detection, by country, sex, age, stage, and tumor location.

Time, subgroup	All included countries			Belgium (2009-2016)			Denmark (2014-2018)		
	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases
	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]
3 years									
Total	89.9 (89.6-90.3)	65.8 (65.5-66.1)	71.1 (70.9-71.4)	91.8 (90.8-92.6)	72.8 (72.3-73.3)	74.9 (74.4-75.3)	89.3 (88.0-90.4)	68.1 (67.0-69.1)	74.2 (73.3-75.1)
By sex									
Male	89.3 (88.8-89.7)	64.9 (64.5-65.2)	70.6 (70.3-70.9)	91.1 (89.9-92.2)	71.7 (71.1-72.4)	74.0 (73.4-74.6)	89.1 (87.4-90.6)	66.7 (65.3-68.1)	73.4 (72.2-74.5)
Female	91.1 (90.5-91.7)	67.3 (66.8-67.7)	72.0 (71.6-72.4)	93.1 (91.5-94.4)	74.5 (73.7-75.2)	76.2 (75.5-77.0)	89.5 (87.4-91.3)	69.9 (68.3-71.6)	75.4 (74.1-76.7)
By age at diagnosis									
50-59 years	-	-	-	94.0 (91.3-95.9)	77.4 (76.4-78.4)	78.4 (77.5-79.4)	92.1 (89.3-94.1)	73.5 (71.1-75.8)	78.7 (76.8-80.5)
60-69 years	89.9 (89.6-90.3)	65.8 (65.5-66.1)	71.1 (70.9-71.4)	92.3 (91.0-93.4)	73.7 (73.0-74.5)	75.9 (75.3-76.6)	90.1 (88.3-91.7)	68.1 (66.5-69.6)	74.5 (73.2-75.7)
70-74 years	-	-	-	90.1 (88.3-91.7)	67.1 (66.1-68.1)	70.1 (69.2-71.0)	86.4 (83.8-88.6)	65.0 (63.0-66.9)	71.2 (69.6-72.8)
By stage at diagnosis									
I	96.4 (95.9-96.8)	92.2 (91.6-92.7)	94.0 (93.7-94.4)	96.1 (95.0-96.9)	92.1 (91.4-92.7)	93.0 (92.4-93.5)	95.2 (93.4-96.6)	91.5 (89.5-93.1)	93.2 (91.9-94.3)
II	94.5 (93.8-95.2)	86.8 (86.2-87.3)	88.6 (88.1-89.0)	94.4 (92.3-95.9)	87.5 (86.7-88.2)	88.1 (87.3-88.8)	93.7 (91.2-95.5)	89.3 (87.6-90.7)	90.4 (89.1-91.7)
III	89.3 (88.3-90.1)	77.0 (76.4-77.7)	79.9 (79.3-80.4)	91.8 (89.6-93.6)	78.7 (77.7-70.6)	79.9 (79.0-80.7)	87.2 (83.9-89.8)	80.0 (77.9-82.0)	82.1 (80.3-83.7)
IV	48.4 (45.7-51.1)	24.5 (23.9-25.2)	26.6 (25.9-27.3)	51.9 (45.0-58.4)	34.0 (32.8-35.1)	34.6 (33.4-35.8)	49.9 (42.2-57.1)	22.4 (20.4-24.4)	25.2 (23.2-27.1)
By tumour location									
Proximal colon	86.8 (85.9-87.6)	62.1 (61.5-62.6)	66.4 (66.0-66.9)	87.9 (85.3-90.1)	68.3 (67.2-69.3)	70.0 (69.0-70.9)	87.1 (84.2-89.5)	63.8 (61.6-65.9)	69.8 (68.0-71.6)
Distal colon	92.3 (91.8-92.7)	69.0 (68.5-69.6)	75.8 (75.4-76.2)	93.5 (92.2-94.5)	75.1 (74.3-75.9)	77.8 (77.1-78.6)	91.2 (89.3-92.7)	70.6 (68.7-72.4)	78.1 (76.6-79.4)
Rectum	89.2 (88.5-89.8)	68.6 (68.2-69.1)	72.8 (72.4-73.2)	91.9 (90.0-93.5)	75.0 (74.2-75.9)	76.5 (75.7-77.2)	88.2 (85.6-90.3)	71.4 (69.6-73.1)	75.5 (74.0-76.9)
5 years									
Total	83.4 (82.9-83.9)	57.5 (57.2-57.8)	63.1 (62.8-63.4)	87.3 (85.5-88.9)	63.8 (63.2-64.3)	65.9 (65.3-66.4)	-	-	-
By sex									
Male	82.4 (81.8-83.0)	55.9 (55.5-56.3)	61.9 (61.6-62.3)	86.2 (83.9-88.3)	61.9 (61.1-62.6)	64.3 (63.5-65.0)	-	-	-
Female	85.3 (84.5-86.1)	60.1 (59.6-60.6)	65.0 (64.5-65.4)	89.5 (87.0-91.6)	66.6 (65.7-67.5)	68.4 (67.5-69.2)	-	-	-
By age at diagnosis									
50-59 years	-	-	-	92.4 (88.5-95.0)	69.3 (68.1-70.4)	70.4 (69.3-71.5)	-	-	-
60-69 years	83.4 (82.9-83.9)	57.5 (57.2-57.8)	63.1 (62.8-63.4)	87.8 (85.1-90.0)	64.8 (63.9-65.6)	67.0 (66.2-67.8)	-	-	-
70-74 years	-	-	-	84.5 (80.5-87.7)	57.1 (56.0-58.3)	60.2 (59.1-61.3)	-	-	-
By stage at diagnosis									
I	92.4 (91.6-93.1)	86.7 (86.0-87.4)	89.1 (88.6-89.6)	94.5 (93.1-95.7)	86.1 (85.1-87.0)	87.3 (86.5-88.1)	-	-	-
II	87.9 (86.6-89.1)	79.2 (78.5-80.0)	81.2 (80.5-81.8)	88.6 (85.1-91.4)	80.6 (79.6-81.5)	81.1 (80.1-82.0)	-	-	-
III	80.7 (79.3-82.0)	66.2 (65.3-66.9)	69.4 (68.7-70.1)	86.2 (81.3-89.9)	69.2 (68.1-70.3)	70.5 (69.4-71.5)	-	-	-
IV	32.3 (29.4-35.2)	13.9 (13.3-14.5)	15.4 (14.8-16.0)	35.2 (25.8-44.7)	19.1 (18.0-20.1)	19.5 (18.5-20.6)	-	-	-
By tumour location									
Proximal colon	80.4 (79.3-81.4)	54.8 (54.2-55.4)	59.2 (58.7-59.8)	82.5 (78.4-85.8)	60.5 (59.4-61.6)	62.2 (61.1-63.3)	-	-	-
Distal colon	86.7 (86.0-87.3)	60.4 (59.8-61.0)	67.8 (67.4-68.3)	89.2 (86.2-91.6)	66.2 (65.2-67.2)	69.1 (68.2-70.0)	-	-	-
Rectum	81.5 (80.6-82.3)	59.6 (59.1-60.1)	64.0 (63.5-64.4)	87.4 (84.5-89.7)	64.7 (63.7-65.7)	66.2 (65.2-67.1)	-	-	-

(Appendix Table 6 continues on next page)

Appendix Table 6. Continued.

Time, subgroup	England (2006-2015)			France, 5 regions (2002-2016) [b]			Ireland (2012-2016)		
	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases
	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]
3 years									
Total	88.5 (88.1-88.9)	61.1 (60.8-61.4)	66.0 (65.7-66.2)	89.7 (88.6-90.7)	67.6 (66.9-68.4)	71.8 (71.1-72.4)	91.5 (88.9-93.5)	70.8 (69.1-72.4)	74.2 (72.7-75.7)
By sex									
Male	87.9 (87.4-88.5)	60.3 (59.9-60.7)	65.6 (65.3-65.9)	89.3 (87.9-90.6)	66.0 (65.0-67.0)	70.4 (69.6-71.3)	90.6 (87.1-93.2)	71.1 (68.9-73.1)	74.5 (72.6-76.2)
Female	89.6 (88.9-90.3)	62.4 (61.9-62.8)	66.5 (66.1-67.0)	90.4 (88.5-91.9)	70.3 (69.0-71.5)	73.9 (72.8-75.0)	93.2 (88.8-95.9)	70.2 (67.4-72.8)	73.8 (71.3-76.1)
By age at diagnosis									
50-59 years	-	-	-	92.9 (90.7-94.5)	71.2 (69.7-72.6)	74.8 (73.5-76.0)	-	-	-
60-69 years	89.3 (88.8-89.7)	63.0 (62.6-63.4)	68.6 (68.2-68.9)	89.9 (88.3-91.3)	67.9 (66.8-69.1)	72.2 (71.2-73.2)	91.5 (88.9-93.5)	70.8 (69.1-72.4)	74.2 (72.7-75.7)
70-74 years	86.3 (85.4-87.1)	58.4 (57.9-58.8)	61.7 (61.3-62.1)	86.9 (84.6-88.9)	63.8 (62.3-65.3)	68.3 (67.0-69.6)	-	-	-
By stage at diagnosis									
I	95.9 (95.3-96.5) [c]	90.0 (89.2-90.7)	92.5 (91.9-93.0) [c]	96.1 (94.9-97.0)	92.6 (91.6-93.5)	93.8 (93.0-94.4)	94.9 (90.0-97.5)	94.9 (91.7-96.9)	94.9 (92.4-96.6)
II	93.4 (92.4-94.2) [c]	83.4 (82.7-84.2)	85.9 (85.2-86.5) [c]	96.1 (94.5-97.3)	88.4 (87.3-89.4)	89.8 (88.9-90.7)	92.7 (85.9-96.3)	90.2 (87.2-92.5)	90.6 (88.0-92.7)
III	87.3 (86.1-88.4) [c]	71.7 (70.8-72.5)	75.4 (74.7-76.1) [c]	90.6 (88.1-92.5)	80.8 (79.4-82.1)	82.6 (81.4-83.7)	96.0 (91.3-98.2)	82.8 (80.0-85.1)	84.7 (82.2-86.8)
IV	43.8 (40.5-46.9) [c]	17.4 (16.7-18.2)	19.5 (18.8-20.3) [c]	46.2 (40.6-51.7)	27.2 (25.9-28.6)	28.5 (27.2-29.9)	54.1 (37.2-68.3)	21.9 (18.8-25.1)	23.7 (20.6-26.9)
By tumour location									
Proximal colon	85.2 (84.2-86.1)	58.6 (58.1-59.1)	62.3 (61.8-62.8)	87.8 (85.5-89.8)	65.1 (63.6-66.5)	69.2 (67.9-70.4)	90.7 (84.8-94.4)	66.3 (63.1-69.3)	70.0 (67.1-72.7)
Distal colon	91.0 (90.4-91.6)	63.8 (63.2-64.3)	70.3 (69.9-70.8)	91.8 (90.1-93.2)	70.1 (68.7-71.5)	75.0 (73.8-76.1)	91.9 (87.6-94.8)	72.9 (69.6-75.8)	77.3 (74.6-79.7)
Rectum	88.0 (87.3-88.7)	64.5 (64.0-65.0)	68.5 (68.1-69.0)	89.0 (86.9-90.7)	68.4 (67.1-69.6)	71.8 (70.7-72.8)	91.0 (85.6-94.4)	74.0 (71.3-76.5)	76.3 (73.9-78.6)
5 years									
Total	81.9 (81.4-82.4)	53.0 (52.7-53.3)	58.1 (57.8-58.4)	82.9 (81.5-84.2)	57.6 (56.8-58.4)	62.3 (61.6-63.1)	85.0 (79.9-88.9)	62.3 (60.3-64.2)	65.8 (64.0-67.6)
By sex									
Male	80.9 (80.2-81.5)	51.5 (51.1-51.9)	57.1 (56.7-57.4)	82.7 (81.0-84.4)	55.3 (54.2-56.3)	60.5 (59.6-61.5)	83.5 (76.6-88.5)	61.9 (59.3-64.3)	65.4 (63.0-67.6)
Female	84.0 (83.1-84.8)	55.3 (54.9-55.8)	59.7 (59.3-60.1)	83.1 (80.8-85.2)	61.4 (60.1-62.8)	65.4 (64.2-66.6)	87.9 (79.5-93.0)	62.9 (59.7-65.9)	66.6 (63.7-69.3)
By age at diagnosis									
50-59 years	-	-	-	85.8 (83.0-88.3)	62.6 (61.0-64.2)	66.5 (65.0-67.9)	-	-	-
60-69 years	83.0 (82.4-83.6)	55.3 (54.9-55.7)	61.1 (60.8-61.4)	83.1 (81.1-85.0)	57.6 (56.3-58.8)	62.6 (61.5-63.7)	85.0 (79.9-88.9)	62.3 (60.3-64.2)	65.8 (64.0-67.6)
70-74 years	78.6 (77.5-79.7)	49.7 (49.2-50.2)	53.1 (52.6-53.5)	80.2 (77.4-82.6)	52.9 (51.3-54.5)	58.2 (56.7-59.6)	-	-	-
By stage at diagnosis									
I	92.0 (91.0-92.8) [c]	84.2 (83.1-85.2) [c]	87.4 (86.7-88.1) [c]	92.7 (91.1-94.0)	86.0 (84.6-87.3)	88.2 (87.1-89.2)	87.7 (69.3-95.4)	90.7 (86.3-93.7)	90.7 (87.0-93.4)
II	87.1 (85.8-88.4) [c]	75.5 (74.6-76.4) [c]	78.4 (77.6-79.1) [c]	91.0 (88.6-92.9)	81.0 (79.5-82.3)	82.9 (81.6-84.1)	85.9 (70.0-93.7)	82.8 (78.6-86.3)	83.4 (79.6-86.6)
III	78.5 (77.0-80.0) [c]	60.2 (59.3-61.2) [c]	64.6 (63.7-65.4) [c]	81.4 (78.3-84.2)	68.4 (66.6-70.0)	70.8 (69.3-72.2)	85.5 (70.9-93.1)	71.5 (67.8-74.9)	73.4 (69.9-76.6)
IV	32.1 (28.9-35.2) [c]	10.6 (10.0-11.2) [c]	12.3 (11.7-13.0) [c]	23.9 (18.9-29.2)	14.5 (13.4-15.6)	15.1 (14.0-16.3)	34.9 (18.3-52.2)	12.5 (9.7-15.6)	13.6 (10.7-16.7)
By tumour location									
Proximal colon	78.8 (77.6-79.9)	51.5 (51.0-52.1)	55.3 (54.8-55.8)	82.0 (79.3-84.4)	56.3 (54.7-57.8)	60.9 (59.5-62.3)	89.6 (83.1-93.7)	58.5 (54.9-62.0)	70.0 (67.1-72.7)
Distal colon	85.1 (84.3-85.8)	55.2 (54.6-55.8)	62.4 (61.9-62.9)	85.9 (83.7-87.8)	59.8 (58.2-61.3)	65.7 (64.4-67.0)	87.9 (80.1-92.8)	63.0 (59.2-66.6)	68.1 (64.7-71.2)
Rectum	80.5 (79.6-81.3)	55.5 (55.0-56.0)	59.8 (59.3-60.2)	80.2 (77.6-82.6)	57.6 (56.3-59.0)	61.4 (60.1-62.6)	77.1 (65.1-85.4)	65.5 (62.3-68.5)	67.3 (64.3-70.2)

*(**Appendix Table 6** continues on next page)*

Appendix Table 6. Continued.

Time, subgroup	Italy, Turin (2003-2014)			Netherlands (2015)			Slovenia (2009-2015)		
	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases
	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]
3 years									
Total	89.6 (85.9-92.4)	69.1 (67.0-71.1)	72.2 (70.3-73.9)	90.7 (89.5-91.8)	68.0 (66.5-69.4)	77.1 (76.1-78.1)	89.7 (88.2-91.0)	62.8 (61.0-64.6)	73.3 (72.0-74.5)
By sex									
Male	88.4 (83.3-92.0)	66.7 (63.9-69.4)	70.2 (67.7-72.5)	91.1 (89.7-92.4)	67.7 (65.8-69.6)	77.4 (76.0-78.6)	87.5 (85.5-89.3)	61.2 (58.9-63.3)	71.1 (69.4-72.7)
Female	91.4 (85.4-95.0)	72.2 (69.2-75.1)	74.8 (72.0-77.3)	90.1 (87.8-91.9)	68.3 (66.0-70.5)	76.8 (75.1-78.4)	93.4 (91.2-95.1)	66.2 (63.0-69.1)	77.4 (75.2-79.4)
By age at diagnosis									
50-59 years	-	-	-	-	-	-	91.2 (88.8-93.1)	65.1 (62.1-68.0)	75.6 (73.5-77.6)
60-69 years	89.6 (85.9-92.4) [d]	69.1 (67.0-71.1) [d]	72.2 (70.3-73.9) [d]	91.6 (90.4-92.7)	69.3 (67.3-71.2)	80.8 (79.6-82.0)	88.7 (86.7-90.5)	61.5 (59.2-63.7)	71.8 (70.2-73.4)
70-74 years	-	-	-	85.5 (81.2-88.8) [e]	66.4 (64.3-68.5) [e]	69.7 (67.7-71.5) [e]	-	-	-
By stage at diagnosis									
I	-	-	-	95.7 (94.3-96.8)	93.1 (90.9-94.7)	94.7 (93.6-95.7)	95.9 (94.3-97.0)	93.0 (90.3-95.0)	94.8 (93.5-95.9)
II	-	-	-	94.6 (92.1-96.3)	85.1 (82.8-87.1)	88.5 (86.8-89.9)	94.6 (91.6-96.5)	85.0 (82.2-87.4)	88.1 (86.0-89.8)
III	-	-	-	88.4 (85.6-90.7)	78.3 (75.9-80.5)	81.8 (80.0-83.5)	87.3 (83.6-90.2)	71.0 (67.5-74.2)	76.8 (74.2-79.2)
IV	-	-	-	48.0 (40.4-55.1)	20.3 (17.3-23.5)	24.1 (21.3-27.1)	40.8 (32.3-49.1)	21.2 (18.3-24.1)	24.0 (21.3-26.9)
By tumour location									
Proximal colon	90.2 (81.4-95.0)	67.4 (63.4-71.1)	70.3 (66.6-73.6)	88.2 (85.4-90.6)	62.5 (60.0-64.8)	70.8 (68.9-72.6)	89.7 (86.0-92.4)	60.7 (57.0-64.1)	70.0 (67.2-72.6)
Distal colon	92.5 (86.5-95.9)	74.1 (70.5-77.4)	77.3 (74.2-80.2)	91.6 (89.8-93.1)	70.7 (68.1-73.1)	81.0 (79.3-82.5)	90.4 (88.0-92.4)	66.3 (63.0-69.4)	77.6 (75.4-79.6)
Rectum	88.4 (79.5-93.6)	70.1 (66.1-73.7)	72.5 (68.9-75.8)	91.4 (89.3-93.1)	71.5 (68.9-73.9)	78.8 (77.0-80.6)	89.0 (86.5-91.1)	62.2 (59.4-64.8)	72.0 (69.9-73.9)
5 years									
Total	85.7 (81.5-89.0)	61.1 (58.9-63.3)	64.8 (62.8-66.7)	-	-	-	83.8 (82.0-85.5)	53.5 (51.6-55.3)	65.3 (63.8-66.6)
By sex									
Male	84.4 (78.7-88.6)	57.7 (54.7-60.6)	62.0 (59.3-64.6)	-	-	-	81.1 (78.7-83.3)	51.6 (49.3-53.9)	62.7 (60.9-64.4)
Female	87.7 (81.0-92.2)	65.5 (62.3-68.6)	68.6 (65.6-71.4)	-	-	-	88.5 (85.7-90.8)	57.3 (54.0-60.5)	70.1 (67.8-72.4)
By age at diagnosis									
50-59 years	-	-	-	-	-	-	86.9 (84.1-89.2)	56.0 (52.9-59.0)	68.4 (66.2-70.6)
60-69 years	85.7 (81.5-89.0) [d]	61.1 (58.9-63.3) [d]	64.8 (62.8-66.7) [d]	-	-	-	81.9 (79.4-84.1)	52.1 (49.7-54.4)	63.3 (61.5-65.1)
70-74 years	-	-	-	-	-	-	-	-	-
By stage at diagnosis									
I	-	-	-	-	-	-	93.2 (91.2-94.8)	87.0 (83.5-89.8)	91.0 (89.2-92.4)
II	-	-	-	-	-	-	87.8 (83.7-90.9)	76.6 (73.3-79.5)	80.2 (77.6-82.5)
III	-	-	-	-	-	-	78.2 (73.7-82.0)	57.6 (53.8-61.2)	64.9 (62.0-67.7)
IV	-	-	-	-	-	-	24.3 (17.1-32.1)	11.5 (9.3-14.0)	13.4 (11.2-15.8)
By tumour location									
Proximal colon	82.6 (72.4-89.3)	62.0 (57.9-65.9)	64.6 (60.8-68.2)	-	-	-	84.2 (79.7-87.8)	52.0 (48.2-55.6)	62.3 (59.3-65.2)
Distal colon	90.1 (83.5-94.1)	65.7 (61.8-69.3)	70.0 (66.6-73.2)	-	-	-	84.9 (82.0-87.3)	57.8 (54.3-61.1)	70.4 (68.0-72.7)
Rectum	83.7 (74.0-90.0)	59.6 (55.4-63.6)	62.9 (59.0-66.5)	-	-	-	82.6 (79.6-85.3)	51.9 (49.1-54.7)	63.1 (60.9-65.2)

*(**Appendix Table 6** continues on next page)*

Appendix Table 6. Continued.

Time, subgroup	Spain, 4 regions (2006-2016) [b]		
	Screen-detected cases	**Non-screen-detected cases**	**All cases**
	OS (95% CI) [a]	OS (95% CI) [a]	OS (95% CI) [a]
3 years			
Total	90.8 (89.6-91.8)	70.9 (69.9-72.0)	76.3 (75.4-77.1)
By sex			
Male	89.7 (88.1-91.1)	70.1 (68.7-71.4)	75.5 (74.4-76.5)
Female	92.9 (91.0-94.4)	72.5 (70.7-74.2)	77.7 (76.3-79.1)
By age at diagnosis			
50-59 years	91.0 (89.0-92.6)	72.9 (71.2-74.5)	78.0 (76.6-79.3)
60-69 years	90.6 (89.1-92.0)	69.7 (68.4-71.0)	75.3 (74.2-76.3)
70-74 years	-	-	-
By stage at diagnosis			
I	96.2 (95.0-97.1)	90.9 (89.0-92.5)	93.7 (92.7-94.7)
II	93.2 (90.3-95.2)	85.9 (84.0-87.6)	87.6 (86.0-89.1)
III	90.3 (87.5-92.5)	77.5 (75.6-79.4)	80.6 (79.0-82.2)
IV	49.6 (41.7-57.1)	28.4 (26.0-30.8)	30.7 (28.4-33.0)
By tumour location			
Proximal colon	89.1 (86.0-91.6)	68.2 (66.0-70.3)	72.8 (71.0-74.6)
Distal colon	91.8 (90.1-93.2)	71.5 (69.7-73.3)	78.5 (77.1-79.8)
Rectum	90.4 (88.1-92.3)	72.0 (70.2-73.7)	76.5 (75.0-77.9)
5 years			
Total	83.5 (81.6-85.1)	62.1 (61.0-63.3)	67.7 (66.7-68.6)
By sex			
Male	81.7 (79.4-83.8)	60.3 (58.8-61.8)	65.9 (64.7-67.2)
Female	86.9 (83.9-89.4)	65.4 (63.5-67.3)	70.8 (69.2-72.4)
By age at diagnosis			
50-59 years	85.5 (82.6-87.9)	64.7 (62.7-66.5)	70.2 (68.5-71.7)
60-69 years	82.3 (79.9-84.4)	60.7 (59.2-62.2)	66.2 (64.9-67.5)
70-74 years	-	-	-
By stage at diagnosis			
I	91.4 (89.2-93.2)	85.6 (83.2-87.7)	88.6 (87.0-90.0)
II	85.6 (81.0-89.1)	77.8 (75.4-80.0)	79.6 (77.5-81.5)
III	82.4 (78.2-85.9)	67.4 (65.0-69.6)	70.8 (68.8-72.8)
IV	26.6 (18.8-35.1)	16.9 (14.8-19.1)	18.0 (16.0-20.2)
By tumour location			
Proximal colon	80.6 (75.7-84.6)	59.1 (56.7-61.5)	63.7 (61.6-65.8)
Distal colon	85.5 (83.0-87.7)	63.3 (61.3-65.3)	70.6 (69.0-72.2)
Rectum	82.6 (79.1-85.6)	62.8 (60.8-64.7)	67.4 (65.6-69.0)

OS, overall survival, CI, confidence interval.

[a] Data are presented as survival proportion (%).

[b] The specific years for which data were included from each French and Spanish region are provided in table 1.

[c] For England, data on stage were only available from 2012 onwards. Therefore, patients diagnosed in 2009-2011 were not included in analyses of stage.

[d] Age group 58-64 years.

[e] Age group 70-75 years.

Appendix Table 7. Disease-specific survival of colorectal cancer patients at 3 and 5 years after diagnosis according to mode of detection, by country, sex, age, stage, and tumor location.

Time, subgroup	All included countries			England (2006-2015)			Ireland (2012-2016)		
	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases
	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]
3 years									
Total	93.1 (92.7-93.4)	71.8 (71.4-72.1)	76.6 (76.3-76.8)	92.7 (92.4-93.0)	70.5 (70.2-70.8)	74.6 (74.4-74.9)	95.2 (93.0-96.7)	74.6 (72.9-76.2)	78.0 (76.6-79.4)
By sex									
Male	92.8 (92.4-93.3)	71.1 (70.7-71.6)	76.4 (76.1-76.8)	92.6 (92.1-93.0)	70.0 (69.7-70.4)	74.5 (74.2-74.9)	95.0 (92.1-96.8)	75.7 (73.7-77.7)	79.1 (77.3-80.8)
Female	93.5 (92.9-94.0)	72.7 (72.1-73.2)	76.8 (76.4-77.3)	93.0 (92.4-93.5)	71.2 (70.8-71.7)	74.7 (74.3-75.1)	95.6 (91.7-97.7)	72.6 (69.8-75.2)	76.3 (73.8-78.5)
By age at diagnosis									
50-59 years	-	-	-	-	-	-	-	-	-
60-69 years	93.1 (92.7-93.4)	71.8 (71.4-72.1)	76.6 (76.3-76.8)	92.9 (92.5-93.3)	71.4 (71.0-71.7)	76.1 (75.8-76.4)	95.2 (93.0-96.7)	74.6 (72.9-76.2)	78.0 (76.6-79.4)
70-74 years	-	-	-	92.0 (91.2-92.7)	69.2 (68.8-69.7)	72.1 (71.7-72.5)	-	-	-
By stage at diagnosis									
I	98.9 (98.6-99.2)	97.2 (96.6-97.6)	98.0 (97.7-98.3)	98.8 (98.4-99.1) [b]	96.5 (96.0-97.0) [b]	97.5 (97.2-97.8) [b]	98.5 (94.0-99.6)	99.0 (97.0-99.7)	98.9 (97.3-99.5)
II	96.9 (96.1-97.5)	91.5 (90.8-92.1)	92.9 (92.4-93.4)	96.6 (95.9-97.2) [b]	90.7 (90.1-91.3) [b]	92.2 (91.7-92.7) [b]	97.3 (91.8-99.1)	93.5 (90.9-95.3)	94.1 (91.9-95.7)
III	92.1 (91.1-93.0)	81.4 (80.6-82.2)	84.3 (83.6-84.9)	91.8 (90.8-92.6) [b]	79.5 (78.7-80.3) [b]	82.4 (81.8-83.1) [b]	96.0 (91.3-98.2)	85.8 (83.2-88.0)	87.3 (85.1-89.3)
IV	51.2 (47.6-54.7)	25.8 (24.8-26.8)	28.3 (27.3-29.4)	50.1 (46.7-53.5) [b]	24.2 (23.3-25.2) [b]	26.5 (25.6-27.5) [b]	58.9 (41.0-73.0)	24.2 (20.8-27.7)	26.1 (22.8-29.6)
By tumour location									
Proximal colon	90.6 (89.7-91.5)	68.8 (68.2-69.4)	72.7 (72.1-73.2)	90.4 (89.6-91.2)	68.4 (67.9-69.0)	73.0 (72.3-73.7)	93.9 (88.6-96.8)	70.4 (67.3-73.4)	74.0 (71.1-76.6)
Distal colon	95.0 (94.5-95.5)	74.7 (74.1-75.4)	80.9 (80.4-81.4)	94.7 (94.2-95.1)	73.3 (72.8-73.8)	79.5 (78.8-80.2)	95.7 (92.0-97.6)	76.0 (72.9-78.8)	80.5 (78.0-82.8)
Rectum	92.3 (91.7-92.9)	73.7 (73.2-74.3)	77.7 (77.3-78.1)	92.1 (91.4-92.6)	72.4 (71.9-72.8)	77.9 (77.2-78.5)	95.3 (90.8-97.6)	77.6 (75.0-80.0)	80.0 (77.7-82.1)
5 years									
Total	89.2 (88.8-89.7)	65.7 (65.4-66.1)	71.1 (70.7-71.4)	89.0 (88.5-89.3)	64.7 (64.4-65.0)	69.2 (68.9-69.5)	92.5 (89.5-94.7)	67.4 (65.5-69.3)	71.2 (69.5-72.9)
By sex									
Male	89.0 (88.4-89.5)	64.7 (64.2-65.1)	70.6 (70.2-70.9)	88.7 (88.2-89.2)	63.7 (63.3-64.1)	68.8 (68.4-69.1)	92.5 (88.7-95.1)	68.0 (65.5-70.4)	71.8 (69.5-73.9)
Female	89.8 (89.0-90.5)	67.4 (66.8-67.9)	71.8 (71.4-72.3)	89.4 (88.7-90.1)	66.1 (65.7-66.6)	69.9 (69.5-70.3)	92.5 (86.7-95.9)	66.4 (63.3-69.3)	70.2 (67.4-72.9)
By age at diagnosis									
50-59 years	-	-	-	-	-	-	-	-	-
60-69 years	89.2 (88.8-89.7)	65.7 (65.4-66.1)	71.1 (70.7-71.4)	89.2 (88.7-89.7)	65.5 (65.1-65.9)	70.7 (70.4-71.0)	92.5 (89.5-94.7)	67.4 (65.5-69.3)	71.2 (69.5-72.9)
70-74 years	-	-	-	88.3 (87.3-89.1)	63.6 (63.1-64.1)	66.7 (66.2-67.1)	-	-	-
By stage at diagnosis									
I	97.9 (97.3-98.3)	95.4 (94.7-96.0)	96.6 (96.2-97.0)	97.9 (97.3-98.3) [b]	94.7 (94.0-95.3) [b]	96.1 (95.6-96.4) [b]	97.0 (90.4-99.1)	98.0 (95.3-99.2)	97.8 (95.5-98.9)
II	93.6 (92.4-94.6)	87.0 (86.1-87.9)	88.8 (88.1-89.5)	94.2 (93.2-95.0) [b]	87.0 (86.2-87.7) [b]	88.8 (88.2-89.4) [b]	95.4 (87.6-98.4)	88.6 (84.8-91.4)	89.5 (86.2-92.1)
III	86.4 (84.9-87.6)	72.7 (71.7-73.8)	76.3 (75.5-77.2)	86.3 (84.9-87.5) [b]	70.8 (69.8-71.7) [b]	74.5 (73.7-75.3) [b]	93.7 (85.2-97.4)	76.0 (72.4-79.1)	78.0 (74.7-80.9)
IV	38.1 (34.4-41.7)	16.4 (15.5-17.4)	18.6 (17.7-19.6)	39.2 (35.7-42.7) [b]	16.3 (15.5-17.2) [b]	18.4 (17.6-19.3) [b]	38.0 (19.9-56.0)	13.8 (10.8-17.2)	15.0 (11.9-18.4)
By tumour location									
Proximal colon	87.4 (86.4-88.4)	63.9 (63.2-64.5)	68.0 (67.4-68.6)	87.2 (86.2-88.1)	63.9 (63.3-64.4)	68.9 (68.1-69.6)	92.8 (86.8-96.1)	64.7 (61.1-68.0)	68.4 (65.2-71.5)
Distal colon	91.8 (91.2-92.4)	68.5 (67.8-69.1)	75.6 (75.0-76.1)	91.4 (90.8-92.0)	67.2 (66.6-67.8)	74.3 (73.5-75.1)	94.0 (89.4-96.7)	67.1 (63.3-70.6)	72.5 (69.2-75.5)
Rectum	87.4 (86.5-88.1)	67.0 (66.4-67.6)	71.3 (70.8-71.8)	87.5 (86.7-88.2)	65.7 (65.2-66.2)	71.6 (70.9-72.4)	89.7 (82.1-94.1)	70.1 (67.0-73.0)	72.6 (69.7-75.2)

*(**Appendix Table 7** continues on next page)*

Appendix Table 7. Continued.

Time, subgroup	Italy, Turin (2003-2014)			Slovenia (2009-2015)			Spain, 3 regions (2009-2016) [d]		
	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases	Screen-detected cases	Non-screen-detected cases	All cases
	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]	DSS (95% CI) [a]
3 years									
Total	95.5 (92.6-97.3)	75.6 (73.6-77.4)	78.6 (76.8-80.2)	91.7 (90.3-92.9)	66.3 (64.5-68.1)	76.3 (75.0-77.5)	94.5 (93.5-95.3)	78.1 (76.9-79.2)	83.3 (82.5-84.2)
By sex									
Male	95.4 (91.4-97.6)	73.2 (70.4-75.7)	76.8 (74.3-79.0)	90.1 (88.2-91.7)	65.1 (62.9-67.3)	74.6 (73.0-76.2)	94.3 (93.0-95.4)	78.1 (76.6-79.4)	83.3 (82.3-84.4)
Female	95.5 (90.3-98.0)	78.6 (75.6-81.2)	80.9 (78.3-83.3)	94.4 (92.3-95.9)	68.7 (65.6-71.6)	79.3 (77.2-81.3)	94.8 (93.0-96.2)	78.1 (76.1-80.0)	83.4 (81.9-84.7)
By age at diagnosis									
50-59 years	-	-	-	92.3 (90.0-94.1)	67.8 (64.8-70.6)	77.8 (75.7-79.7)	94.7 (93.0-96.0)	78.7 (76.8-80.5)	83.9 (82.5-85.2)
60-69 years	95.5 (92.6-97.3) [c]	75.6 (73.6-77.4) [c]	78.6 (76.8-80.2) [c]	91.3 (89.4-92.8)	65.5 (63.2-67.7)	75.4 (73.7-76.9)	94.3 (93.0-95.4)	77.7 (76.3-79.1)	83.0 (81.9-84.1)
70-74 years	-	-	-	-	-	-	-	-	-
By stage at diagnosis									
I	-	-	-	98.1 (96.9-98.9)	96.3 (94.1-97.7)	97.4 (96.4-98.2)	99.0 (98.2-99.4)	98.3 (97.1-99.0)	98.7 (98.1-99.2)
II	-	-	-	96.5 (93.9-98.0)	88.6 (86.0-90.7)	91.1 (89.3-92.7)	97.1 (94.8-98.4)	94.5 (92.8-95.8)	95.3 (94.0-96.3)
III	-	-	-	89.1 (85.5-91.8)	74.8 (71.4-77.9)	80.0 (77.4-82.3)	92.6 (89.8-94.6)	85.7 (83.5-87.5)	87.8 (86.1-89.3)
IV	-	-	-	42.1 (33.3-50.6)	23.0 (19.9-26.1)	25.8 (22.9-28.8)	53.5 (44.7-61.4)	32.6 (29.7-35.5)	35.2 (32.4-38.0)
By tumour location									
Proximal colon	92.5 (84.1-96.6)	73.9 (70.0-77.4)	76.3 (72.8-79.5)	91.3 (87.7-93.8)	64.0 (60.4-67.5)	72.9 (70.1-75.5)	91.7 (88.7-94.0)	76.7 (74.3-78.9)	80.6 (78.7-82.4)
Distal colon	97.6 (92.7-99.2)	80.1 (76.6-83.1)	83.2 (80.3-85.7)	93.1 (91.0-94.8)	69.6 (66.3-72.7)	80.7 (78.6-82.6)	95.4 (93.9-96.4)	79.5 (77.5-81.4)	85.9 (84.6-87.1)
Rectum	96.2 (88.8-98.8)	77.3 (73.4-80.6)	79.8 (76.4-82.8)	90.4 (88.0-92.4)	65.8 (63.0-68.4)	74.9 (72.9-76.8)	94.6 (92.6-96.1)	77.5 (75.4-79.4)	82.4 (80.8-83.9)
5 years									
Total	92.7 (89.1-95.1)	69.3 (67.1-71.4)	72.8 (70.9-74.7)	87.6 (85.8-89.1)	58.6 (56.6-60.5)	69.9 (68.5-71.3)	88.9 (87.0-90.4)	70.9 (69.5-72.3)	76.5 (75.4-77.6)
By sex									
Male	91.9 (86.8-95.0)	66.5 (63.4-69.3)	70.6 (67.9-73.1)	85.4 (83.0-87.5)	57.5 (55.1-59.9)	68.1 (66.3-69.8)	88.8 (86.6-90.7)	70.2 (68.5-71.9)	76.0 (74.6-77.4)
Female	93.8 (88.0-96.9)	72.8 (69.5-75.8)	75.7 (72.8-78.4)	91.2 (88.6-93.3)	60.6 (57.2-63.8)	73.3 (70.9-75.5)	88.9 (85.5-91.5)	72.2 (69.9-74.3)	77.4 (75.5-79.1)
By age at diagnosis									
50-59 years	-	-	-	88.3 (85.5-90.6)	59.3 (56.0-62.4)	71.1 (68.8-73.3)	88.9 (85.7-91.5)	71.9 (69.6-74.0)	77.3 (75.4-79.0)
60-69 years	92.7 (89.1-95.1) [c]	69.3 (67.1-71.4) [c]	72.8 (70.9-74.7) [c]	87.1 (84.8-89.1)	58.2 (55.7-60.5)	69.2 (67.4-70.9)	88.8 (86.5-90.8)	70.4 (68.6-72.1)	76.1 (74.6-77.4)
70-74 years	-	-	-	-	-	-	-	-	-
By stage at diagnosis									
I	-	-	-	97.1 (95.5-98.1)	92.9 (89.9-95.0)	95.5 (94.1-96.6)	97.1 (95.3-98.2)	96.7 (94.7-97.9)	96.9 (95.7-97.8)
II	-	-	-	91.8 (87.9-94.4)	82.8 (79.7-85.5)	85.7 (83.3-87.8)	90.9 (86.0-94.2)	87.1 (84.2-89.5)	88.2 (85.8-90.2)
III	-	-	-	83.0 (78.6-86.5)	63.6 (59.7-67.3)	70.7 (67.7-73.4)	86.4 (81.8-89.9)	78.7 (75.9-81.2)	81.0 (78.7-83.1)
IV	-	-	-	25.1 (17.6-33.4)	12.2 (9.7-15.0)	14.1 (11.7-16.8)	28.7 (19.5-38.6)	20.1 (17.2-23.0)	21.2 (18.4-24.1)
By tumour location									
Proximal colon	88.1 (78.3-93.7)	69.8 (65.7-73.6)	72.2 (68.4-75.6)	88.6 (84.4-91.7)	56.8 (52.9-60.5)	67.1 (64.1-70.0)	86.3 (81.2-90.1)	68.5 (65.6-71.2)	72.9 (70.4-75.2)
Distal colon	95.8 (90.1-98.2)	73.8 (70.0-77.3)	77.8 (74.5-80.7)	89.0 (86.3-91.2)	62.9 (59.3-66.2)	75.1 (72.8-77.3)	91.8 (89.6-93.6)	72.8 (70.4-75.0)	80.2 (78.5-81.8)
Rectum	92.1 (83.3-96.4)	68.4 (64.1-72.3)	71.6 (67.7-75.1)	85.6 (82.6-88.1)	57.1 (54.1-60.0)	67.6 (65.3-69.7)	85.8 (81.6-89.1)	70.3 (67.9-72.5)	74.8 (72.8-76.7)

DSS, Disease (colorectal cancer) specific survival, CI, confidence interval.

[a] Data are presented as survival proportion (%).

Notes to Appendix Table 7. Continued.

[b] For England, data on stage were only available from 2012 onwards. Therefore, patients diagnosed in 2009-2011 were not included in analyses of stage.

[c] Age group 58-64 years.

[d] The specific years for which data were included from each Spanish region are provided in Table 1.

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