

## Colorectal cancer survival in seven high-income countries 2010-2014: uncovering the impact of age and stage at diagnosis (the ICBP Survmark-2 project)

### Supplementary materials

List of local leads, academic reference group, clinical leads and Upper GI Clinical Committee

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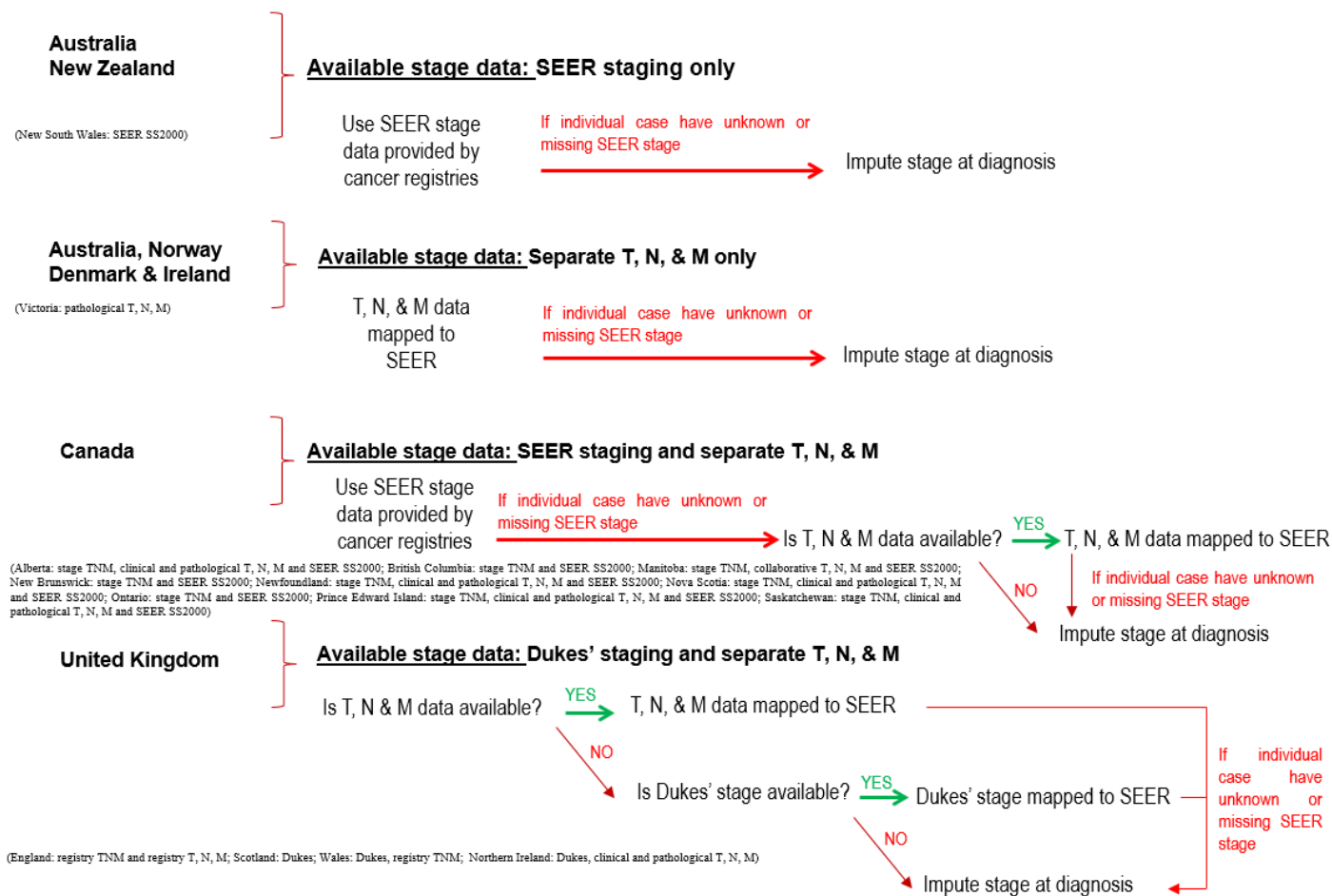
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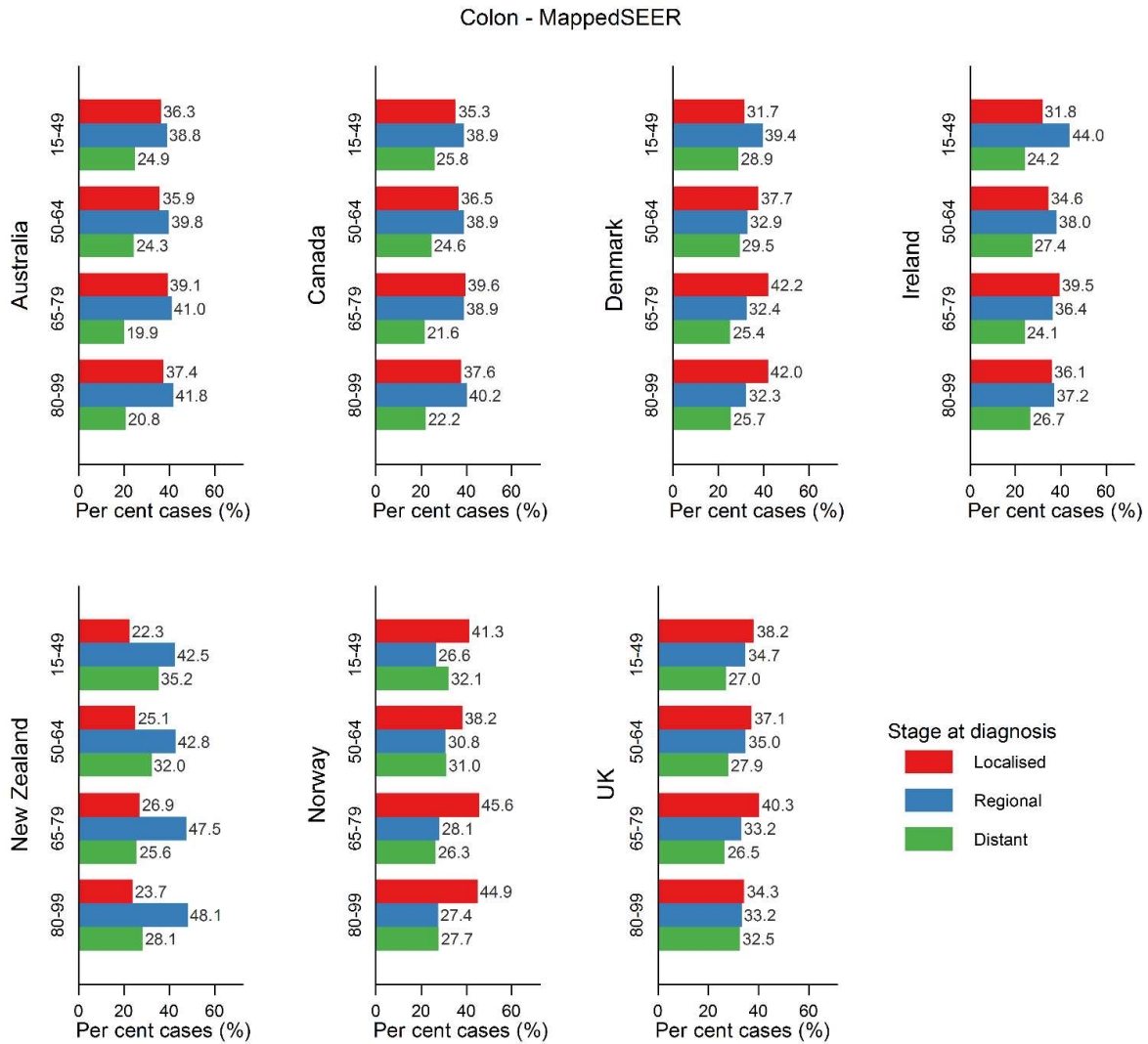


Supplementary Figure 1A. Flow chart of conversion of stage at diagnosis data to produce mapped SEER stage variable

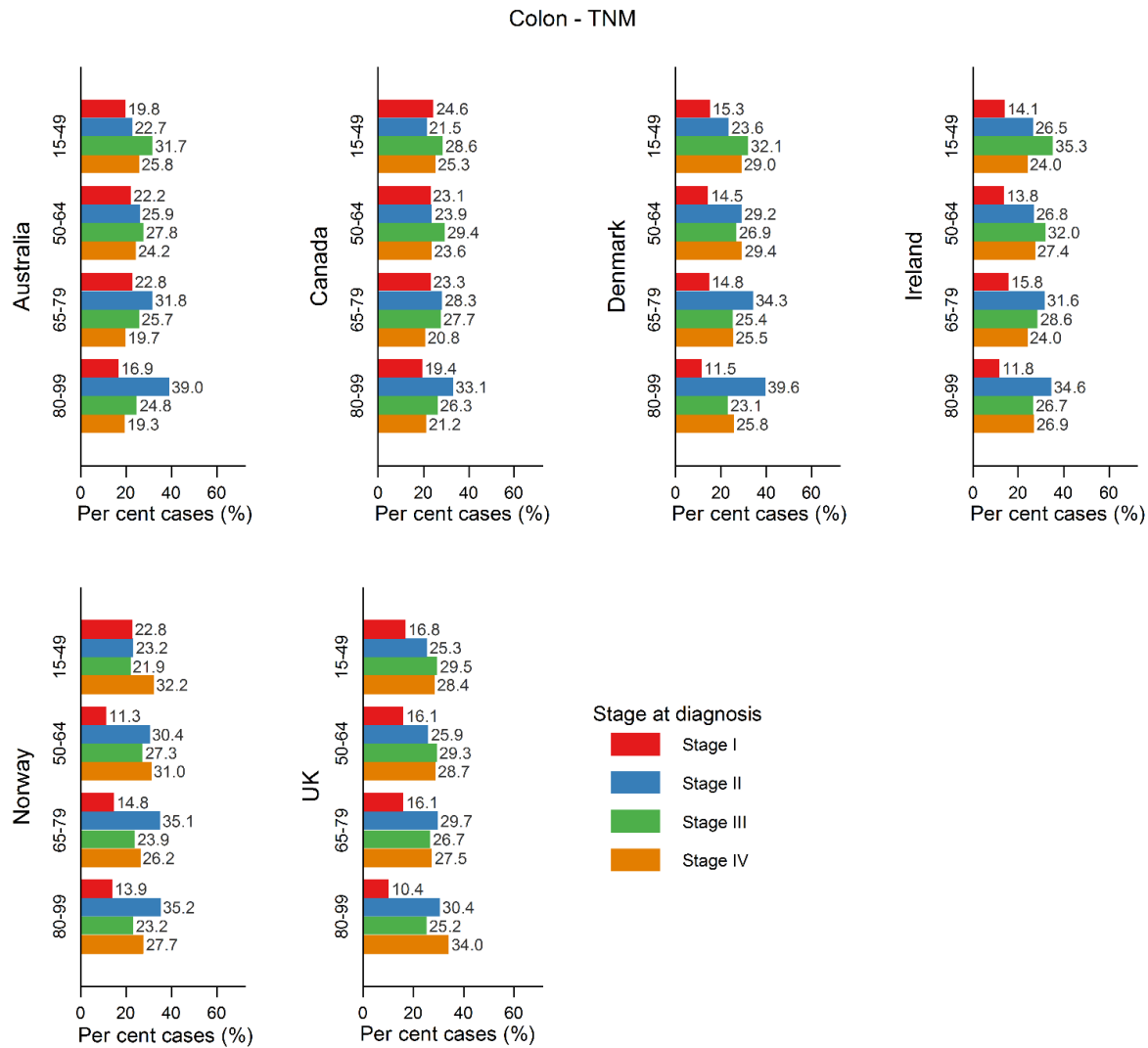
<b>Stage Grouping</b>	<b>Single TNM</b>	<b>Dukes'</b>	<b>SEER</b>
IV	M1	<b>D</b>	<b>Distant</b>
III	N+ T4	<b>C</b>	<b>Regional</b>
I, II	T1, T2, T3	<b>A,B</b>	<b>Localized</b>

**Supplementary Figure 1B.** Algorithm for mapping TNM stage to SEER stage

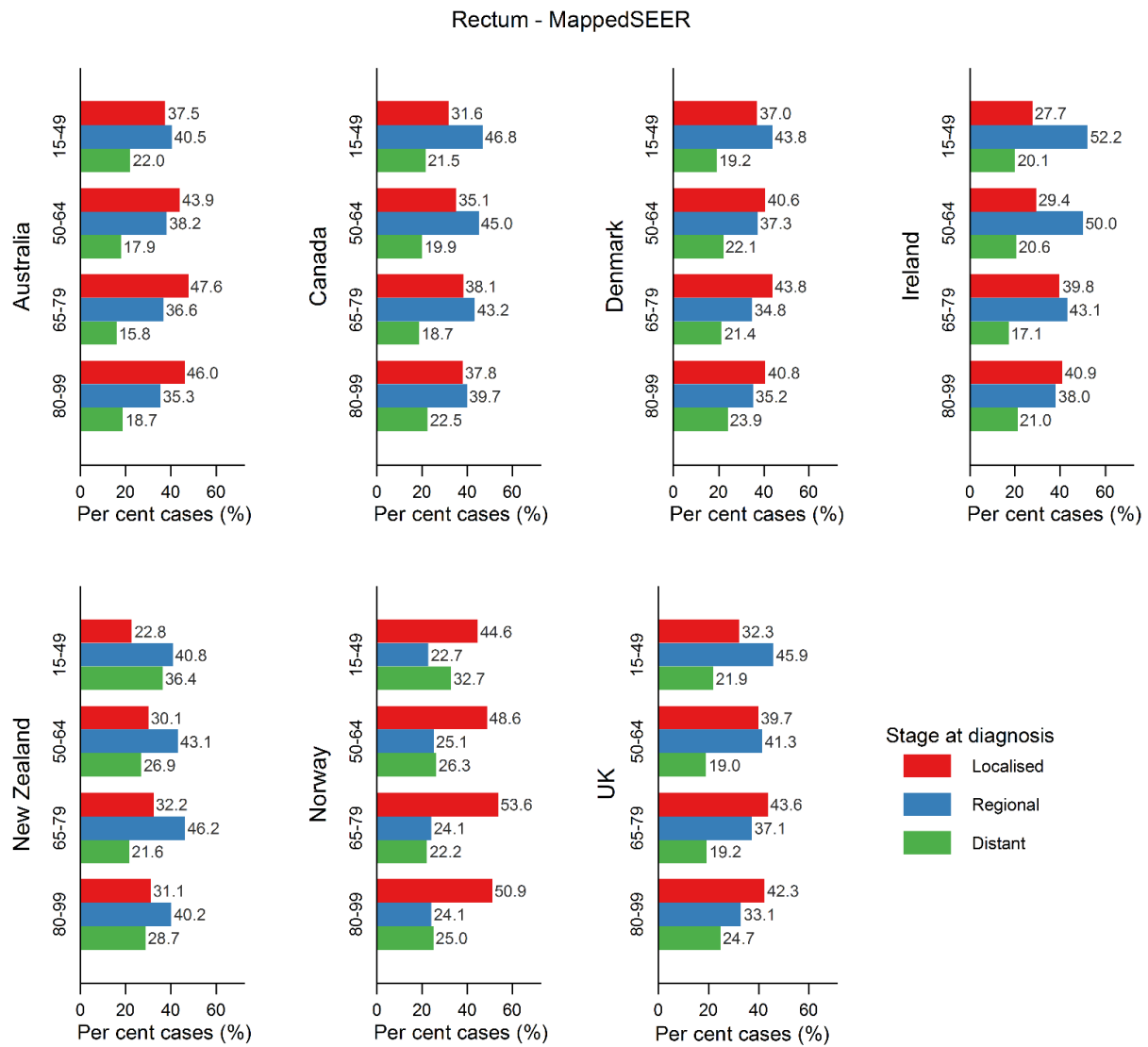
**Supplementary Figure 2A.** Proportions of cases diagnosed with colon cancer during 2010-2014 by age, mapped SEER stage and country after imputation of stage at diagnosis



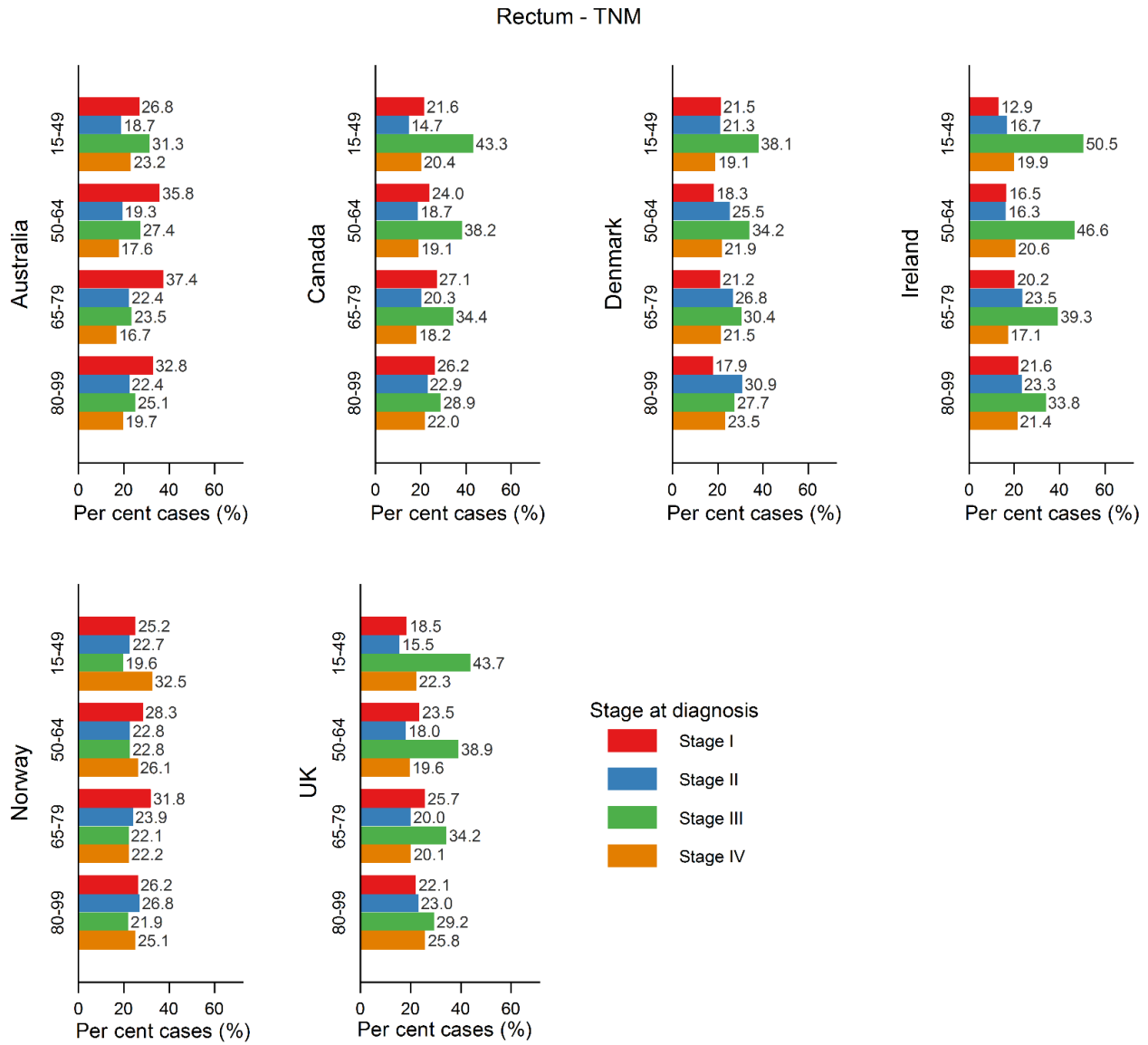
**Supplementary Figure 2B.** Proportions of cases diagnosed with colon cancer during 2010-2014 by age, TNM stage and country after imputation of stage at diagnosis



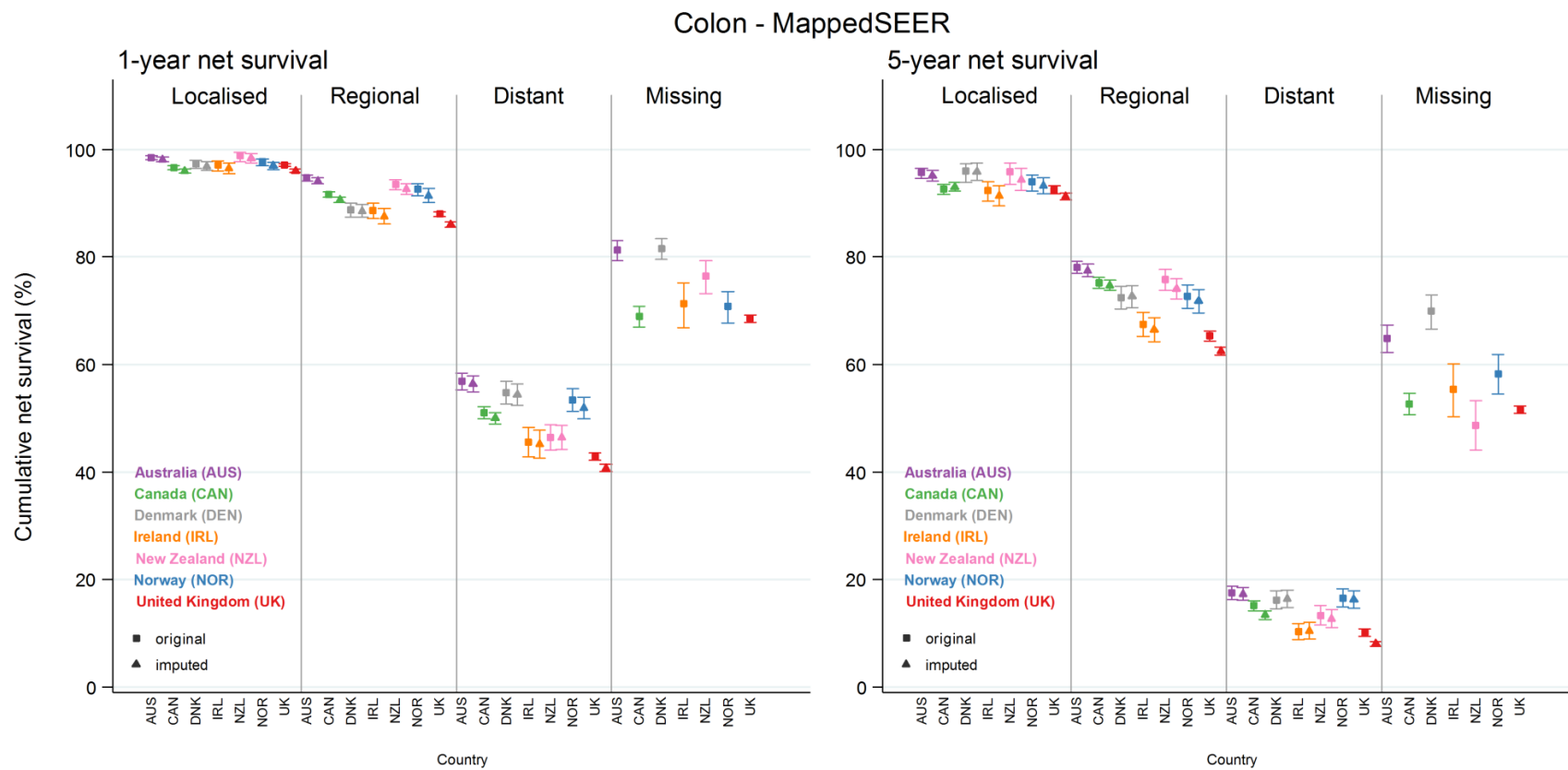
**Supplementary Figure 3A.** Proportions of cases diagnosed with rectal cancer during 2010-2014 by age, mapped SEER stage and country after imputation of stage at diagnosis



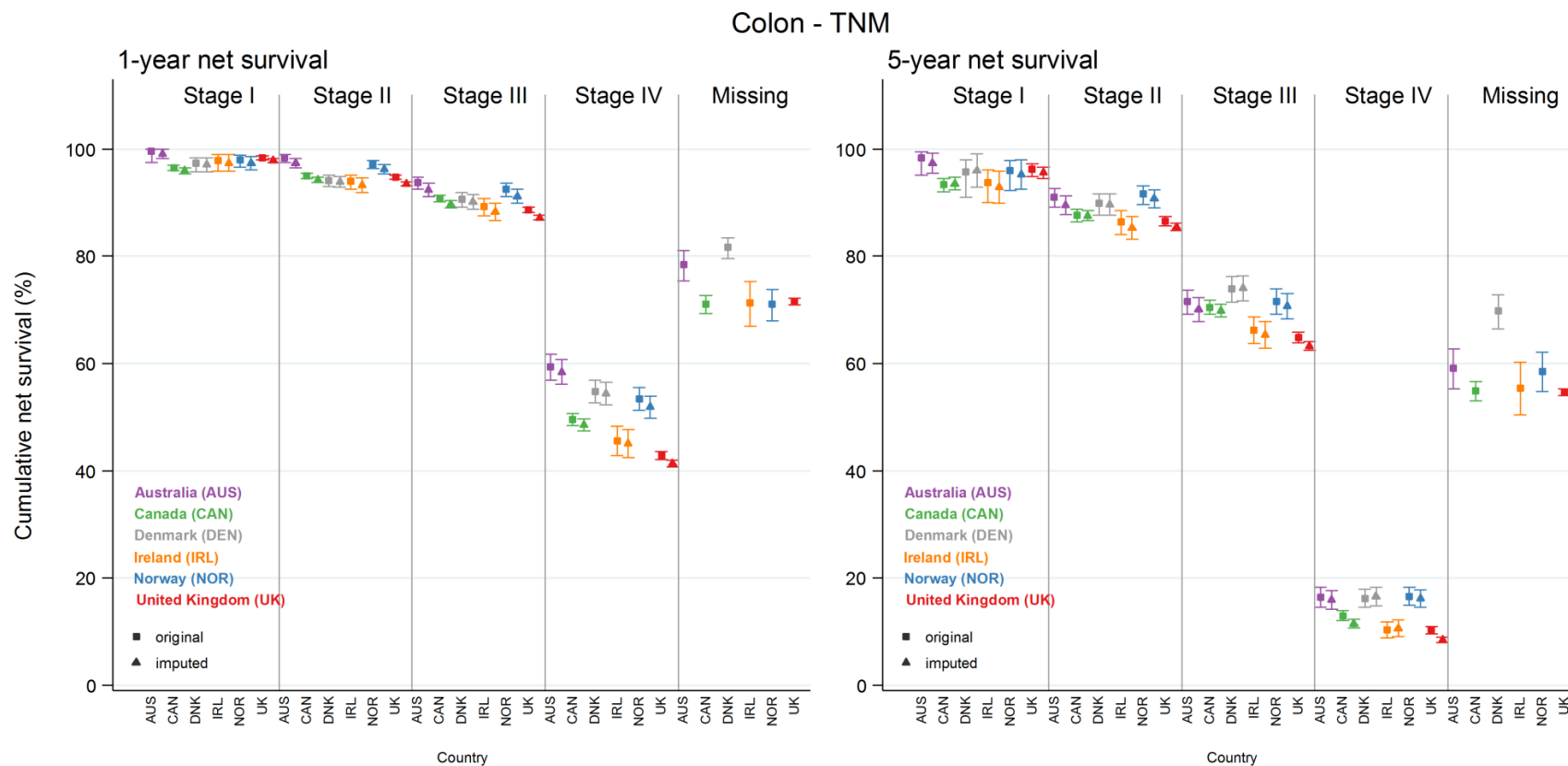
**Supplementary Figure 3B.** Proportions of cases diagnosed with rectal cancer during 2010-2014 by age, TNM stage and country after imputation of stage at diagnosis



**Supplementary Figure 4A.** Comparison of estimated 1-year and 5-year net survival for colon cancer between original data with unknown or missing stage and imputed stage (SEER) for 2010-2014 study period

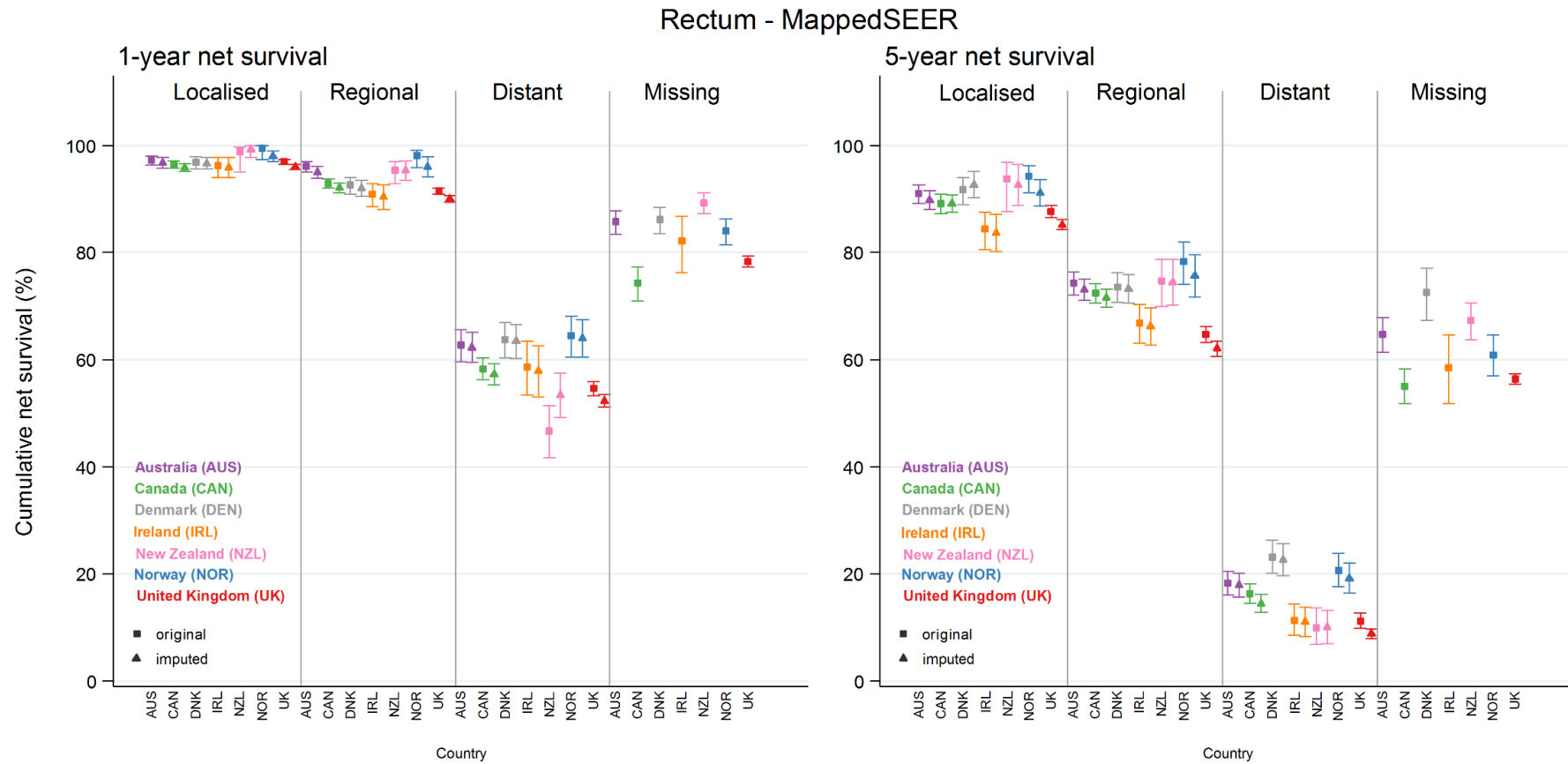


**Supplementary Figure 4B.** Comparison of estimated 1-year and 5-year net survival for colon cancer between original data with unknown or missing stage and imputed stage (TNM) for 2010-2014 study period

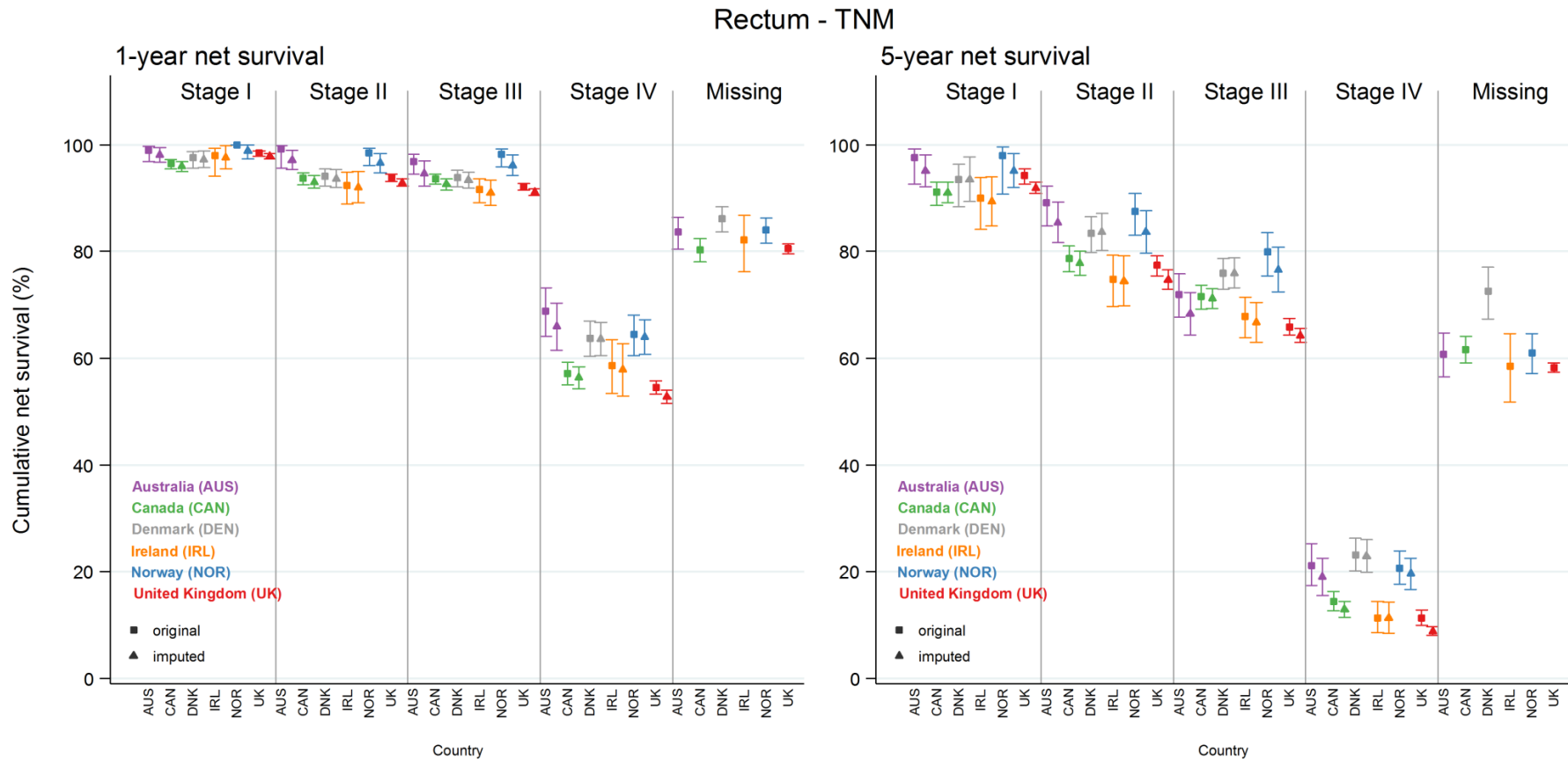




**Supplementary Figure 5A.** Comparison of estimated 1-year and 5-year net survival for rectal cancer between original data with unknown or missing stage and imputed stage (SEER) for 2010-2014 study period



**Supplementary Figure 5B.** Comparison of estimated 1-year and 5-year net survival for rectal cancer between original data with unknown or missing stage and imputed stage (TNM) for 2010-2014 study period



**Supplementary Table 2A.** Proportions with missing or unknown stage for colon cancer in 2010-2014<sup>a</sup>

Jurisdiction	SEER	pT	pN	pM	cT	cN	cM	Grouped TNM	cdT	cdN	cdM	collabT	collabN	collabM	regT	regN	regM	regTNM	Duke's
AUS, NSW	7.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUS, VIC	100.0	21.4	26.9	81.2	100.0	100.0	100.0	12.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, ALB	2.9	18.8	24.8	91.3	91.6	82.5	8.7	5.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, BCO	8.2	100.0	100.0	100.0	100.0	100.0	100.0	11.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, MAN	3.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	7.9	3.9	0.0	100.0	100.0	100.0	100.0	100.0
CAN, NBR	6.9	100.0	100.0	100.0	100.0	100.0	100.0	7.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, NFD	3.8	17.6	23.4	94.5	93.6	84.3	6.0	59.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, NSC	3.0	21.3	27.0	92.9	85.9	78.4	7.2	4.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, ONT	10.4	100.0	100.0	100.0	100.0	100.0	100.0	11.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, PEI	3.2	18.4	22.9	91.3	91.8	82.0	8.9	3.7	100.0	100.0	100.0	10.2	5.0	0.2	100.0	100.0	100.0	100.0	100.0
CAN, SAS	4.0	19.8	27.1	90.5	89.2	78.4	9.6	7.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IRE	100.0	28.9	30.6	95.9	69.9	55.1	31.0	100.0	19.7	17.9	31.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NOR	5.6	23.7	24.8	97.6	93.5	93.7	92.6	100.0	52.9	30.0	5.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	23.8
NZ	11.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.7
UK, ENG	100.0	40.1	43.4	91.6	90.8	90.0	83.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	48.8	49.2	47.6	46.1	100.0
UK, NIR	100.0	27.9	34.6	94.2	98.1	92.1	17.6	14.9	17.6	18.4	3.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	17.4
UK, SCO	100.0	87.1	87.4	98.2	94.4	92.2	87.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12.8
UK, WAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	34.2	64.2	71.5	19.2	43.7

Abbreviations: SEER=Surveillance, Epidemiology and End Results; TNM=Tumor, nodal, metastasis; p(T/N/M)=pathological(T/N/M); cd(T/N/M)=condensed(T/N/M), collab(T/N/M)=collaborative staging(T/N/M), reg(T/N/M)=registry(T/N/M); AUS=Australia; NSW=New South Wales; VIC=Victoria; CAN=Canada; AB=Alberta; BC=British Columbia; MB=Manitoba; NM=New Brunswick; NF=Newfoundland & Labrador; NS=Nova Scotia; ON=Ontario; PE=Prince Edward Island; QC=Quebec; SK=Saskatchewan; DEN=Denmark; IRE=Ireland; NOR=Norway; NZ=New Zealand; UK=United Kingdom; NIR=Northern Ireland; SCO=Scotland; WAL=Wales

<sup>a</sup> Ireland (2010-2013)

Jurisdiction	SEER	pT	pN	pM	cT	cN	cM	Grouped TNM	cdT	cdN	cdM	collabT	collabN	collabM	regT	regN	regM	regTNM	Dukes
AUS, NSW	10.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUS, VIC	100.0	29.0	35.4	85.7	100.0	100.0	100.0	20.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AUS, WES	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, AB	2.2	55.2	63.0	96.8	53.4	44.3	3.4	5.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, BC	7.4	100.0	100.0	100.0	100.0	100.0	100.0	18.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, MB	2.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	6.9	3.3	0.2	100.0	100.0	100.0	100.0	100.0
CAN, NM	8.6	100.0	100.0	100.0	100.0	100.0	100.0	10.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, NF	3.1	58.0	65.3	97.4	55.7	45.9	3.4	49.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, NS	1.9	53.4	60.3	96.6	51.8	44.7	3.5	4.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, ON	9.6	100.0	100.0	100.0	100.0	100.0	100.0	11.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, PE	1.7	57.0	71.1	96.7	48.8	34.7	5.0	5.0	100.0	100.0	100.0	5.8	5.8	1.7	100.0	100.0	100.0	100.0	100.0
CAN, QC	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
CAN, SK	2.6	50.8	58.9	95.7	58.0	45.1	4.3	5.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
DEN	100.0	100.0	100.0	100.0	22.1	31.3	16.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IRE	100.0	69.7	73.2	99.1	29.6	27.7	22.8	100.0	15.5	17.5	22.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
NOR	9.5	42.8	42.9	99.0	89.8	90.7	90.0	100.0	56.6	28.1	9.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	43.0
NZ	44.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	94.0
UK, ENG	100.0	48.7	53.7	94.9	76.4	76.9	76.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	44.0	44.8	45.3	44.3	100.0
UK, NIR	100.0	62.4	68.5	98.2	60.3	56.6	60.3	10.5	22.7	25.2	6.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	12.2
UK, SCO	100.0	88.4	88.6	98.2	88.1	89.0	88.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	20.0
UK, WAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	16.8	20.2	44.7	15.1	50.9

**Supplementary Table 3B.** Proportions with missing or unknown stage for rectal cancer in 2010-2014<sup>a</sup>

Abbreviations: SEER=Surveillance, Epidemiology and End Results; TNM=Tumor, nodal, metastasis; p(T/N/M)=pathological(T/N/M); cd(T/N/M)=condensed(T/N/M), collab(T/N/M)=collaborative staging(T/N/M), reg(T/N/M)=registry(T/N/M); AUS=Australia; NSW=New South Wales; VIC=Victoria; CAN=Canada; AB=Alberta; BC=British Columbia; MB=Manitoba; NM=New Brunswick; NF=Newfoundland & Labrador; NS=Nova Scotia; ON=Ontario; PE=Prince Edward Island; QC=Quebec; SK=Saskatchewan; DEN=Denmark; IRE=Ireland; NOR=Norway; NZ=New Zealand; UK=United Kingdom; NIR=Northern Ireland; SCO=Scotland; WAL=Wales

<sup>a</sup> Ireland (2010-2013)

**Supplementary Table 1A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>†</sup>	Canada <sup>†</sup>	Denmark	Ireland <sup>†</sup>	New Zealand	Norway	United Kingdom <sup>†</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	87.5 (87.0 - 88.0)	84.2 (83.8 - 84.6)	82.7 (81.8 - 83.5)	80.0 (78.9 - 81.0)	80.8 (79.9 - 81.8)	82.6 (81.8 - 83.4)	77.1 (76.8 - 77.4)
	15-49	92.0 (90.6 - 93.2)	91.3 (90.2 - 92.3)	89.7 (86.5 - 92.2)	89.7 (86.5 - 92.2)	84.8 (81.3 - 87.8)	89.3 (86.4 - 91.6)	86.7 (85.8 - 87.5)
	50-64	91.4 (90.5 - 92.2)	88.9 (88.2 - 89.5)	87.1 (85.5 - 88.5)	87.1 (85.5 - 88.5)	84.2 (82.2 - 86.0)	87.3 (85.7 - 88.7)	83.7 (83.2 - 84.3)
	65-79	87.8 (87.1 - 88.5)	84.4 (83.8 - 85.0)	82.5 (81.4 - 83.6)	80.4 (78.7 - 81.9)	82.8 (81.5 - 84.1)	83.2 (81.9 - 84.3)	77.7 (77.3 - 78.2)
	80-99	76.9 (75.5 - 78.1)	71.4 (70.4 - 72.4)	69.4 (67.2 - 71.5)	60.3 (57.4 - 63.2)	67.8 (65.5 - 70.0)	68.9 (66.9 - 70.9)	57.7 (57.1 - 58.3)
<b>TNM Stage<sup>§</sup></b>								
Stage I	All ages	99.1 (98.2 - 100.0)	95.9 (95.4 - 96.5)	97.0 (95.8 - 98.3)	97.4 (95.9 - 98.9)		97.4 (96.1 - 98.6)	97.8 (97.4 - 98.2)
	15-49	99.4 (98.0 - 100.0)	98.7 (97.8 - 99.7)	98.5 (95.3 - 100.0)	100.0 (100.0 - 100.0)		99.9 (98.7 - 100.0)	99.6 (99.1 - 100.0)
	50-64	99.7 (98.8 - 100.0)	98.7 (98.1 - 99.3)	98.8 (97.1 - 100.0)	99.4 (97.9 - 100.0)		99.4 (97.8 - 100.0)	99.4 (98.9 - 99.8)
	65-79	98.9 (97.7 - 100.0)	96.6 (95.8 - 97.4)	97.6 (95.9 - 99.3)	98.3 (96.3 - 100.0)		97.4 (95.5 - 99.3)	98.6 (98.1 - 99.1)
	80-99	98.6 (94.6 - 100.0)	87.7 (85.6 - 89.7)	90.6 (85.0 - 96.1)	89.3 (82.2 - 96.4)		92.3 (87.8 - 96.7)	91.8 (90.2 - 93.5)
Stage II	All ages	100.0 (99.5 - 100.0)	94.2 (93.7 - 94.7)	93.9 (92.9 - 94.9)	93.2 (91.8 - 94.6)		96.2 (95.4 - 97.1)	93.5 (93.1 - 93.8)
	15-49	99.6 (98.7 - 100.0)	98.2 (97.0 - 99.4)	98.5 (95.7 - 100.0)	98.2 (95.5 - 100.0)		99.7 (98.2 - 100.0)	98.6 (98.0 - 99.3)
	50-64	97.1 (95.7 - 98.4)	97.3 (96.6 - 98.1)	96.1 (94.3 - 97.9)	98.3 (96.8 - 99.9)		99.4 (98.5 - 100.0)	97.4 (96.8 - 97.9)
	65-79	97.1 (95.7 - 98.4)	94.8 (93.9 - 95.6)	94.1 (92.6 - 95.5)	92.9 (90.8 - 95.1)		96.3 (94.9 - 97.6)	94.3 (93.7 - 94.8)
	80-99	92.6 (89.6 - 95.6)	85.5 (83.8 - 87.2)	85.7 (82.7 - 88.8)	80.5 (75.5 - 85.5)		89.2 (86.2 - 92.3)	81.7 (80.4 - 83.0)
Stage III	All ages	92.3 (91.1 - 93.6)	89.7 (89.0 - 90.3)	90.1 (88.7 - 91.5)	88.2 (86.6 - 89.9)		91.2 (89.9 - 92.5)	87.1 (86.7 - 87.6)
	15-49	96.2 (93.7 - 98.7)	97.7 (96.6 - 98.9)	95.8 (92.2 - 99.4)	97.2 (94.7 - 99.7)		98.9 (96.6 - 100.0)	95.9 (94.9 - 97.0)
	50-64	97.5 (96.1 - 98.9)	94.8 (93.9 - 95.7)	94.8 (92.8 - 96.8)	95.6 (93.5 - 97.6)		95.8 (93.9 - 97.7)	93.7 (93.0 - 94.4)
	65-79	92.5 (90.5 - 94.4)	89.9 (88.9 - 90.9)	91.5 (89.6 - 93.4)	89.8 (87.3 - 92.2)		92.1 (90.2 - 94.0)	87.8 (87.1 - 88.5)
	80-99	80.3 (76.0 - 84.5)	75.4 (73.2 - 77.5)	74.3 (69.7 - 78.8)	64.7 (58.7 - 70.7)		77.1 (72.9 - 81.2)	68.3 (66.8 - 69.8)
Stage IV	All ages	58.4 (56.1 - 60.7)	48.6 (47.5 - 49.7)	54.4 (52.3 - 56.5)	45.1 (42.5 - 47.7)		51.8 (49.8 - 53.9)	41.3 (40.6 - 41.9)
	15-49	73.8 (67.5 - 80.1)	69.3 (65.8 - 72.7)	71.5 (63.5 - 79.5)	67.8 (58.5 - 77.2)		66.6 (59.4 - 73.7)	58.5 (56.0 - 60.9)
	50-64	70.0 (65.8 - 74.2)	60.6 (58.6 - 62.6)	65.7 (61.9 - 69.5)	57.1 (52.0 - 62.1)		63.7 (59.7 - 67.7)	52.4 (51.0 - 53.8)
	65-79	56.9 (53.1 - 60.6)	44.9 (43.2 - 46.7)	50.2 (47.3 - 53.1)	42.0 (38.2 - 45.8)		50.0 (46.9 - 53.0)	37.7 (36.8 - 38.7)
	80-99	31.9 (27.2 - 36.5)	22.4 (20.5 - 24.3)	31.0 (26.8 - 35.2)	17.2 (13.1 - 21.3)		24.6 (21.3 - 28.0)	18.4 (17.5 - 19.3)
<b>Mapped SEER stage<sup>¶</sup></b>								
Localised	All ages	98.1 (97.7 - 98.6)	96.0 (95.6 - 96.4)	96.9 (96.1 - 97.7)	96.4 (95.4 - 97.4)	98.3 (97.4 - 99.2)	96.9 (96.3 - 97.6)	96.0 (95.7 - 96.3)
	15-49	99.6 (98.9 - 100.0)	98.9 (98.1 - 99.6)	98.9 (96.5 - 100.0)	99.4 (98.0 - 100.0)	100.0 (99.2 - 100.0)	99.8 (98.8 - 100.0)	99.2 (98.8 - 99.7)
	50-64	99.5 (99.0 - 100.0)	98.5 (98.0 - 99.0)	98.4 (97.1 - 99.7)	99.7 (98.8 - 100.0)	99.8 (98.8 - 100.0)	99.6 (98.8 - 100.0)	98.6 (98.3 - 99.0)
	65-79	98.5 (97.9 - 99.2)	96.5 (95.9 - 97.2)	96.9 (95.8 - 98.0)	96.7 (95.1 - 98.2)	99.0 (97.7 - 100.0)	99.6 (98.8 - 100.0)	96.8 (96.5 - 97.2)
	80-99	93.8 (92.0 - 95.6)	88.6 (87.1 - 90.1)	92.4 (89.2 - 95.6)	87.4 (83.4 - 91.5)	92.7 (89.1 - 96.4)	97.1 (96.0 - 98.1)	87.1 (86.0 - 88.3)
Regional	All ages	94.1 (93.6 - 94.7)	90.6 (90.1 - 91.1)	88.6 (87.4 - 89.8)	87.6 (86.1 - 89.0)	92.6 (91.6 - 93.5)	91.4 (90.1 - 92.7)	86.0 (85.6 - 86.5)
	15-49	97.4 (96.1 - 98.6)	97.3 (96.3 - 98.3)	96.0 (92.7 - 99.3)	97.2 (95.0 - 99.5)	97.1 (94.7 - 99.5)	99.1 (97.4 - 100.0)	95.6 (94.6 - 96.6)
	50-64	97.5 (96.8 - 98.3)	95.4 (94.6 - 96.1)	93.4 (91.5 - 95.4)	95.1 (93.1 - 97.1)	96.1 (94.5 - 97.7)	95.9 (94.2 - 97.7)	93.2 (92.5 - 93.8)
	65-79	94.2 (93.3 - 95.1)	90.9 (90.1 - 91.8)	89.7 (88.0 - 91.4)	88.5 (86.3 - 90.8)	93.5 (92.1 - 94.9)	91.9 (90.1 - 93.6)	86.5 (85.8 - 87.2)
	80-99	85.5 (83.5 - 87.5)	77.8 (76.2 - 79.4)	71.4 (67.4 - 75.3)	64.7 (59.7 - 69.8)	81.3 (78.2 - 84.3)	78.3 (73.9 - 82.7)	66.2 (65.0 - 67.3)
Distant	All ages	56.4 (54.9 - 57.9)	50.0 (48.9 - 51.1)	54.4 (52.4 - 56.4)	45.2 (42.6 - 47.8)	46.4 (44.1 - 48.6)	51.9 (49.9 - 53.9)	40.7 (40.0 - 41.4)
	15-49	72.9 (68.6 - 77.1)	70.2 (66.8 - 73.6)	71.8 (63.8 - 79.8)	67.9 (58.7 - 77.1)	60.1 (52.6 - 67.7)	66.3 (59.2 - 73.5)	57.0 (54.5 - 59.6)
	50-64	69.4 (66.6 - 72.1)	61.8 (59.8 - 63.8)	66.0 (62.1 - 69.8)	57.0 (51.9 - 62.1)	55.6 (51.0 - 60.2)	63.9 (60.0 - 67.8)	51.7 (50.4 - 53.1)
	65-79	53.2 (50.8 - 55.7)	46.6 (44.8 - 48.3)	50.4 (47.6 - 53.2)	42.2 (38.2 - 46.1)	45.2 (41.8 - 48.5)	50.1 (47.1 - 53.0)	37.4 (36.5 - 38.4)
	80-99	30.0 (27.2 - 32.8)	24.1 (22.2 - 26.0)	30.2 (26.3 - 34.1)	17.7 (13.6 - 21.9)	24.7 (21.1 - 28.3)	24.6 (21.3 - 28.0)	18.1 (17.2 - 19.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)<sup>†</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales<sup>‡</sup>Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>¶</sup>Model2: Age spline allowing separate models for each stage category

**Supplementary Table 2B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>2</sup>	All ages	70.9 (70.2 - 71.6)	70.8 (70.2 - 71.3)	65.5 (64.2 - 66.7)	60.9 (59.5 - 62.2)	62.1 (60.8 - 63.4)	65.4 (64.2 - 66.5)	59.1 (58.7 - 59.4)
	15-49	73.7 (71.5 - 75.8)	73.9 (72.3 - 75.5)	66.4 (61.8 - 70.6)	72.6 (68.4 - 76.4)	63.4 (58.9 - 67.5)	69.2 (65.1 - 72.9)	67.1 (65.9 - 68.3)
	50-64	73.0 (71.7 - 74.3)	72.8 (72.0 - 73.7)	66.8 (64.7 - 68.8)	65.4 (63.0 - 67.7)	63.2 (60.7 - 65.6)	67.9 (65.7 - 69.9)	64.2 (63.5 - 64.8)
	65-79	71.8 (70.7 - 72.8)	71.0 (70.2 - 71.8)	64.6 (62.9 - 66.2)	60.6 (58.6 - 62.6)	64.5 (62.7 - 66.3)	65.3 (63.6 - 66.9)	60.6 (60.1 - 61.1)
	80-99	63.4 (61.1 - 65.5)	64.6 (63.0 - 66.2)	64.6 (60.6 - 68.3)	44.7 (40.8 - 48.6)	53.3 (49.8 - 56.6)	58.4 (55.2 - 61.5)	41.3 (40.5 - 42.2)
<b>TNM Stage<sup>3</sup></b>								
Stage I	All ages	97.4 (95.5 - 99.2)	93.5 (92.4 - 94.7)	95.9 (92.8 - 99.1)	92.9 (89.9 - 95.9)		95.2 (92.5 - 97.9)	95.6 (94.5 - 96.6)
	15-49	97.3 (94.2 - 100.0)	95.0 (92.5 - 97.6)	92.8 (85.9 - 99.6)	95.9 (90.4 - 100.0)		100.0 (98.9 - 100.0)	95.8 (94.1 - 97.4)
	50-64	96.6 (94.3 - 98.8)	95.5 (94.3 - 96.7)	93.6 (89.4 - 97.9)	95.8 (92.3 - 99.2)		95.7 (92.0 - 99.3)	95.9 (94.9 - 97.0)
	65-79	96.0 (93.3 - 98.6)	94.7 (93.1 - 96.3)	95.3 (91.4 - 99.3)	94.2 (89.9 - 98.4)		93.3 (89.6 - 97.1)	97.2 (96.1 - 98.4)
	80-99	100.0 (94.2 - 100.0)	86.4 (82.1 - 90.8)	100.0 (89.5 - 100.0)	81.9 (69.3 - 94.5)		96.3 (86.2 - 100.0)	91.1 (86.9 - 95.4)
Stage II	All ages	89.5 (87.8 - 91.2)	87.6 (86.6 - 88.5)	89.7 (87.7 - 91.6)	85.2 (83.1 - 87.4)		90.7 (89.0 - 92.4)	85.4 (84.7 - 86.1)
	15-49	93.6 (89.5 - 97.8)	92.5 (90.0 - 95.0)	91.2 (85.2 - 97.2)	93.9 (89.4 - 98.4)		94.6 (90.7 - 98.5)	90.9 (89.2 - 92.5)
	50-64	93.8 (91.4 - 96.3)	89.9 (88.4 - 91.3)	78.0 (74.5 - 81.5)	91.7 (88.7 - 94.7)		93.7 (91.3 - 96.1)	88.9 (87.7 - 90.1)
	65-79	88.0 (85.4 - 90.5)	86.3 (84.8 - 87.8)	86.8 (84.2 - 89.4)	83.1 (79.8 - 86.4)		90.2 (87.8 - 92.7)	86.3 (85.3 - 87.4)
	80-99	83.2 (77.0 - 89.3)	83.6 (80.3 - 86.9)	94.4 (87.3 - 100.0)	72.2 (64.3 - 80.1)		83.9 (77.8 - 90.0)	74.1 (72.2 - 76.0)
Stage III	All ages	70.1 (67.8 - 72.3)	69.9 (68.7 - 71.1)	74.0 (71.7 - 76.3)	65.3 (62.9 - 67.8)		70.7 (68.4 - 73.1)	63.3 (62.4 - 64.1)
	15-49	80.0 (74.5 - 85.5)	81.5 (78.5 - 84.5)	79.7 (72.4 - 86.9)	83.8 (78.4 - 89.2)		78.4 (71.3 - 85.5)	77.0 (74.9 - 79.1)
	50-64	77.5 (74.0 - 81.1)	77.6 (75.9 - 79.2)	78.0 (74.5 - 81.5)	74.4 (70.6 - 78.2)		77.0 (73.2 - 80.7)	72.0 (70.7 - 73.3)
	65-79	68.4 (65.0 - 71.7)	68.7 (66.9 - 70.5)	74.6 (71.5 - 77.8)	65.0 (61.3 - 68.7)		68.9 (65.5 - 72.2)	63.6 (62.4 - 64.7)
	80-99	54.4 (47.8 - 61.0)	52.0 (48.4 - 55.6)	61.0 (52.7 - 69.3)	35.3 (28.1 - 42.4)		59.0 (52.3 - 65.7)	37.9 (35.9 - 40.0)
Stage IV	All ages	15.9 (14.1 - 17.7)	11.5 (10.7 - 12.3)	16.5 (14.8 - 18.2)	10.6 (9.0 - 12.1)		16.1 (14.5 - 17.8)	8.5 (8.0 - 8.9)
	15-49	28.2 (21.5 - 34.9)	21.0 (17.9 - 24.1)	21.4 (14.5 - 28.4)	20.2 (12.8 - 27.7)		23.1 (16.6 - 29.6)	16.3 (13.9 - 18.7)
	50-64	19.5 (16.0 - 22.9)	16.0 (14.4 - 17.7)	23.4 (20.1 - 26.7)	14.6 (11.4 - 17.9)		23.0 (19.4 - 26.5)	12.2 (11.3 - 13.2)
	65-79	14.7 (11.9 - 17.5)	9.5 (8.3 - 10.6)	13.0 (11.0 - 15.0)	8.2 (6.3 - 10.1)		12.8 (10.7 - 15.0)	6.6 (6.0 - 7.1)
	80-99	4.5 (2.1 - 6.9)	2.2 (1.3 - 3.0)	8.7 (5.7 - 11.7)	2.3 (0.5 - 4.1)		6.7 (4.3 - 9.1)	1.3 (1.0 - 1.7)
<b>Mapped SEER stage<sup>4</sup></b>								
Localised	All ages	95.1 (94.1 - 96.0)	93.0 (92.2 - 93.9)	95.8 (94.2 - 97.5)	91.4 (89.5 - 93.2)	94.4 (92.3 - 96.4)	93.2 (91.8 - 94.7)	91.2 (90.7 - 91.8)
	15-49	96.2 (94.4 - 98.0)	94.9 (93.2 - 96.6)	93.5 (88.9 - 98.1)	97.5 (94.7 - 100.0)	96.8 (92.5 - 100.0)	97.8 (95.3 - 100.0)	93.5 (92.1 - 95.0)
	50-64	96.4 (95.2 - 97.6)	94.5 (93.4 - 95.5)	94.2 (91.8 - 96.5)	95.9 (93.8 - 98.0)	95.5 (92.8 - 98.2)	94.9 (92.8 - 96.9)	92.9 (92.1 - 93.6)
	65-79	94.8 (93.4 - 96.1)	92.5 (91.2 - 93.8)	93.2 (90.9 - 95.5)	91.6 (88.9 - 94.3)	94.1 (91.4 - 96.9)	92.1 (90.1 - 94.2)	92.6 (91.6 - 93.5)
	80-99	92.7 (88.9 - 96.6)	90.5 (87.3 - 93.6)	100.0 (99.1 - 100.0)	78.2 (70.7 - 85.7)	91.3 (83.5 - 99.1)	89.6 (84.1 - 95.1)	84.2 (82.2 - 86.2)
Regional	All ages	77.5 (76.3 - 78.6)	74.7 (73.7 - 75.7)	72.6 (70.6 - 74.7)	66.4 (64.2 - 68.6)	74.1 (72.2 - 75.9)	71.8 (69.6 - 73.9)	62.5 (61.7 - 63.3)
	15-49	86.1 (83.3 - 88.8)	84.5 (82.1 - 86.9)	80.8 (74.5 - 87.0)	84.0 (79.1 - 88.8)	80.3 (74.9 - 85.6)	79.6 (73.2 - 85.9)	76.3 (74.4 - 78.2)
	50-64	82.3 (80.5 - 84.1)	80.9 (79.5 - 82.3)	76.6 (73.3 - 79.9)	75.0 (71.5 - 78.4)	77.4 (73.9 - 80.9)	78.3 (74.8 - 81.8)	71.6 (70.4 - 72.8)
	65-79	76.2 (74.5 - 77.9)	73.6 (72.2 - 75.0)	72.6 (69.7 - 75.4)	64.3 (61.0 - 67.6)	74.5 (71.9 - 77.1)	69.8 (66.6 - 73.1)	62.5 (61.4 - 63.7)
	80-99	66.1 (62.6 - 69.7)	60.6 (57.8 - 63.5)	59.1 (52.4 - 65.9)	42.7 (35.7 - 49.7)	62.2 (57.0 - 67.4)	59.8 (53.2 - 66.5)	36.8 (35.1 - 38.5)
Distant	All ages	17.3 (16.2 - 18.5)	13.4 (12.5 - 14.2)	16.4 (14.8 - 18.1)	10.5 (9.0 - 12.0)	12.7 (11.0 - 14.4)	16.3 (14.6 - 17.9)	8.0 (7.5 - 8.5)
	15-49	27.1 (22.9 - 31.3)	22.6 (19.4 - 25.9)	21.6 (14.7 - 28.4)	20.2 (12.8 - 27.7)	19.7 (13.1 - 26.2)	23.3 (16.9 - 29.7)	14.7 (12.5 - 16.9)
	50-64	22.5 (20.1 - 24.9)	18.3 (16.7 - 19.8)	23.6 (20.2 - 27.0)	14.4 (11.3 - 17.6)	16.1 (12.6 - 19.6)	23.0 (19.6 - 26.5)	11.7 (10.7 - 12.6)
	65-79	15.3 (13.5 - 17.0)	11.7 (10.5 - 12.9)	12.9 (10.9 - 14.9)	8.2 (6.3 - 10.1)	11.2 (8.9 - 13.5)	13.0 (10.8 - 15.1)	6.3 (5.8 - 6.9)
	80-99	6.6 (4.7 - 8.4)	2.8 (1.9 - 3.7)	8.3 (5.3 - 11.3)	2.3 (0.6 - 4.1)	5.1 (2.1 - 8.0)	6.9 (4.4 - 9.3)	1.3 (0.9 - 1.6)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales<sup>3</sup>Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>4</sup>Model2: Age spline allowing separate models for each stage category

**Supplementary Table 2A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>2</sup>	All ages	90.0 (89.2 - 90.7)	87.3 (86.7 - 87.9)	87.5 (86.5 - 88.5)	86.3 (84.6 - 87.8)	85.9 (84.5 - 87.3)	89.1 (88.0 - 90.2)	84.8 (84.4 - 85.2)
	15-49	95.9 (94.3 - 97.1)	94.9 (93.6 - 95.9)	92.7 (88.8 - 95.3)	92.7 (88.8 - 95.3)	90.4 (86.0 - 93.4)	92.6 (88.8 - 95.2)	90.6 (89.4 - 91.7)
	50-64	94.0 (93.0 - 95.0)	91.9 (91.1 - 92.7)	92.1 (90.5 - 93.5)	92.1 (90.5 - 93.5)	91.3 (89.0 - 93.1)	94.5 (92.9 - 95.8)	90.9 (90.3 - 91.5)
	65-79	89.4 (88.1 - 90.5)	87.6 (86.6 - 88.5)	87.7 (86.2 - 89.0)	87.2 (84.7 - 89.3)	85.6 (83.3 - 87.6)	90.4 (88.7 - 91.8)	84.9 (84.3 - 85.4)
	80-99	80.2 (77.4 - 82.7)	74.2 (72.0 - 76.2)	73.3 (69.7 - 76.5)	69.0 (63.2 - 74.1)	74.2 (69.3 - 78.4)	75.0 (71.1 - 78.5)	69.8 (68.6 - 70.9)
<b>TNM Stage<sup>3</sup></b>								
Stage I	All ages	98.1 (96.7 - 99.5)	95.9 (95.0 - 96.9)	97.2 (95.7 - 98.8)	97.6 (95.4 - 99.8)		98.8 (97.3 - 100.0)	97.8 (97.3 - 98.3)
	15-49	100.0 (100.0 - 100.0)	100.0 (99.8 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)		99.9 (98.4 - 100.0)	98.9 (97.8 - 100.0)
	50-64	99.7 (98.6 - 100.0)	98.7 (97.8 - 99.6)	99.0 (97.1 - 100.0)	99.8 (98.2 - 100.0)		99.7 (98.5 - 100.0)	99.2 (98.7 - 99.8)
	65-79	96.7 (94.5 - 98.9)	96.2 (94.8 - 97.6)	97.3 (95.3 - 99.2)	96.9 (93.4 - 100.0)		99.6 (98.1 - 100.0)	98.3 (97.6 - 99.0)
	80-99	97.2 (91.5 - 100.0)	87.4 (83.4 - 91.4)	91.3 (83.5 - 99.0)	94.7 (85.3 - 100.0)		94.4 (86.4 - 100.0)	92.9 (91.0 - 94.9)
Stage II	All ages	100.0 (100.0 - 100.0)	93.0 (91.8 - 94.2)	93.6 (91.9 - 95.3)	92.0 (89.1 - 95.0)		96.6 (94.7 - 98.4)	92.9 (92.2 - 93.6)
	15-49	98.4 (96.1 - 100.0)	99.0 (97.5 - 100.0)	97.1 (92.3 - 100.0)	96.7 (90.1 - 100.0)		99.3 (95.9 - 100.0)	98.5 (97.0 - 99.9)
	50-64	97.3 (94.3 - 100.0)	96.0 (94.5 - 97.4)	96.1 (93.9 - 98.4)	94.0 (89.6 - 98.4)		99.5 (98.0 - 100.0)	97.4 (96.5 - 98.3)
	65-79	97.3 (94.3 - 100.0)	93.5 (91.7 - 95.3)	94.3 (92.1 - 96.4)	92.2 (88.2 - 96.2)		97.1 (94.8 - 99.5)	92.5 (91.3 - 93.7)
	80-99	92.1 (84.9 - 99.3)	83.0 (78.6 - 87.4)	83.4 (76.8 - 90.0)	84.2 (73.2 - 95.2)		88.8 (81.1 - 96.4)	81.8 (79.5 - 84.1)
Stage III	All ages	94.5 (92.2 - 96.9)	92.6 (91.5 - 93.6)	93.3 (91.8 - 94.8)	91.0 (88.6 - 93.3)		96.1 (94.2 - 98.1)	91.1 (90.5 - 91.7)
	15-49	99.5 (97.9 - 100.0)	98.4 (97.3 - 99.5)	97.5 (94.2 - 100.0)	100.0 (100.0 - 100.0)		99.6 (97.2 - 100.0)	95.5 (94.0 - 96.9)
	50-64	97.2 (94.7 - 99.8)	96.4 (95.4 - 97.3)	97.7 (96.1 - 99.4)	96.1 (93.8 - 98.4)		99.1 (97.2 - 100.0)	96.1 (95.4 - 96.8)
	65-79	94.3 (90.0 - 98.6)	93.0 (91.5 - 94.4)	93.3 (91.2 - 95.4)	93.1 (90.2 - 96.1)		97.9 (95.4 - 100.0)	91.1 (90.2 - 92.0)
	80-99	87.2 (79.0 - 95.4)	81.6 (77.3 - 85.9)	81.1 (74.5 - 87.7)	68.6 (58.4 - 78.7)		84.6 (76.9 - 92.4)	78.3 (76.2 - 80.5)
Stage IV	All ages	65.9 (61.5 - 70.3)	56.4 (54.3 - 58.4)	63.6 (60.5 - 66.7)	57.8 (52.9 - 62.7)		64.0 (60.8 - 67.2)	52.7 (51.5 - 54.0)
	15-49	85.0 (77.7 - 92.3)	77.6 (72.6 - 82.5)	72.6 (60.6 - 84.6)	83.9 (71.9 - 95.9)		77.9 (69.1 - 86.7)	67.9 (63.8 - 72.0)
	50-64	77.0 (70.2 - 83.7)	67.5 (64.3 - 70.8)	72.9 (67.8 - 78.0)	68.4 (61.0 - 75.9)		80.6 (75.6 - 85.6)	64.4 (62.2 - 66.6)
	65-79	62.9 (55.6 - 70.1)	53.5 (50.1 - 56.9)	62.8 (58.6 - 66.9)	55.4 (47.6 - 63.2)		63.3 (58.1 - 68.4)	49.4 (47.6 - 51.3)
	80-99	40.7 (30.1 - 51.3)	31.8 (27.3 - 36.3)	37.9 (30.7 - 45.0)	28.7 (17.2 - 40.2)		32.1 (24.7 - 39.5)	29.9 (27.4 - 32.5)
<b>Mapped SEER stage<sup>4</sup></b>								
Localised	All ages	96.7 (95.7 - 97.7)	95.9 (95.1 - 96.7)	96.6 (95.6 - 97.7)	95.8 (94.0 - 97.7)	99.2 (97.8 - 100.0)	98.0 (96.9 - 99.0)	96.0 (95.5 - 96.4)
	15-49	100.0 (99.6 - 100.0)	99.9 (99.5 - 100.0)	99.1 (96.9 - 100.0)	98.4 (94.9 - 100.0)	100.0 (100.0 - 100.0)	99.7 (98.2 - 100.0)	99.0 (98.1 - 99.8)
	50-64	98.7 (97.8 - 99.6)	98.5 (97.8 - 99.2)	98.4 (97.0 - 99.7)	97.5 (95.2 - 99.8)	99.9 (98.8 - 100.0)	99.8 (99.0 - 100.0)	98.5 (98.0 - 99.0)
	65-79	96.3 (94.9 - 97.7)	96.0 (94.8 - 97.2)	96.6 (95.1 - 98.1)	96.3 (93.7 - 98.9)	99.6 (97.7 - 100.0)	99.8 (99.0 - 100.0)	96.3 (95.7 - 96.9)
	80-99	91.6 (87.6 - 95.6)	88.3 (85.2 - 91.4)	90.9 (85.9 - 96.0)	90.1 (82.6 - 97.7)	96.4 (89.8 - 100.0)	98.8 (97.5 - 100.0)	88.5 (86.7 - 90.4)
Regional	All ages	94.9 (93.9 - 96.0)	92.1 (91.2 - 92.9)	92.0 (90.5 - 93.4)	90.3 (88.0 - 92.6)	95.3 (93.5 - 97.1)	95.9 (94.1 - 97.8)	90.0 (89.4 - 90.6)
	15-49	99.3 (98.2 - 100.0)	98.5 (97.5 - 99.5)	97.9 (94.6 - 100.0)	100.0 (100.0 - 100.0)	97.9 (94.9 - 100.0)	99.0 (95.4 - 100.0)	95.5 (94.2 - 96.8)
	50-64	97.6 (96.4 - 98.7)	95.8 (94.9 - 96.7)	96.6 (94.8 - 98.4)	96.1 (93.9 - 98.2)	97.8 (95.8 - 99.8)	99.4 (98.0 - 100.0)	95.8 (95.1 - 96.5)
	65-79	94.3 (92.5 - 96.0)	92.6 (91.3 - 93.9)	92.2 (90.2 - 94.3)	91.5 (88.4 - 94.6)	96.1 (93.3 - 98.8)	97.5 (95.2 - 99.8)	89.8 (88.9 - 90.8)
	80-99	88.8 (84.6 - 93.0)	80.6 (77.1 - 84.1)	77.7 (72.0 - 83.4)	69.4 (59.4 - 79.3)	86.5 (79.5 - 93.6)	84.3 (75.8 - 92.8)	75.8 (73.8 - 77.9)
Distant	All ages	62.3 (59.4 - 65.1)	57.2 (55.2 - 59.2)	63.4 (60.2 - 66.6)	57.8 (53.1 - 62.6)	53.4 (49.2 - 57.5)	64.0 (60.5 - 67.5)	52.3 (51.1 - 53.5)
	15-49	82.4 (76.8 - 88.1)	78.5 (73.7 - 83.2)	71.9 (59.9 - 84.0)	84.4 (72.7 - 96.1)	75.7 (66.7 - 84.7)	78.2 (69.2 - 87.3)	67.3 (63.2 - 71.3)
	50-64	74.9 (70.5 - 79.3)	68.9 (65.8 - 71.9)	73.1 (67.8 - 78.3)	67.7 (60.2 - 75.2)	70.0 (63.2 - 76.8)	80.3 (75.4 - 85.1)	63.9 (61.7 - 66.1)
	65-79	58.0 (53.3 - 62.7)	54.4 (51.1 - 57.7)	62.7 (58.5 - 66.8)	55.5 (47.7 - 63.2)	43.9 (36.8 - 51.1)	62.9 (57.6 - 68.2)	49.2 (47.3 - 51.1)
	80-99	36.8 (30.2 - 43.3)	32.0 (27.2 - 36.7)	37.7 (30.4 - 44.9)	29.0 (17.9 - 40.2)	33.2 (24.0 - 42.3)	33.2 (24.9 - 41.5)	29.5 (27.4 - 31.7)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup> Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>1</sup> Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 3B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>2</sup>	All ages	70.8 (69.6 - 72.0)	70.9 (69.9 - 71.8)	69.1 (67.4 - 70.8)	61.6 (59.3 - 63.7)	65.4 (63.1 - 67.5)	68.8 (66.9 - 70.6)	62.1 (61.5 - 62.6)
	15-49	77.9 (75.0 - 80.5)	78.2 (76.0 - 80.2)	73.1 (67.5 - 77.9)	73.1 (67.1 - 78.2)	71.8 (65.8 - 76.9)	75.7 (70.1 - 80.4)	68.9 (67.1 - 70.6)
	50-64	75.4 (73.7 - 77.1)	76.5 (75.3 - 77.7)	74.8 (72.3 - 77.1)	66.0 (62.7 - 69.1)	71.0 (67.5 - 74.2)	73.0 (70.1 - 75.6)	70.1 (69.2 - 70.9)
	65-79	70.5 (68.6 - 72.3)	71.7 (70.3 - 73.1)	68.3 (66.0 - 70.5)	63.1 (59.7 - 66.3)	65.1 (61.9 - 68.2)	71.8 (69.1 - 74.3)	63.4 (62.6 - 64.3)
	80-99	58.2 (53.8 - 62.3)	55.2 (51.9 - 58.3)	56.7 (50.6 - 62.4)	41.4 (34.3 - 48.2)	51.7 (43.8 - 58.9)	51.2 (45.2 - 56.9)	39.3 (37.7 - 40.8)
<b>TNM Stage<sup>3</sup></b>								
Stage I	All ages	95.1 (92.1 - 98.0)	91.0 (89.1 - 92.9)	93.5 (89.4 - 97.7)	89.4 (84.7 - 94.0)		95.1 (92.0 - 98.3)	91.9 (90.9 - 93.0)
	15-49	99.3 (96.8 - 100.0)	96.3 (93.2 - 99.4)	95.2 (87.7 - 100.0)	95.1 (87.6 - 100.0)		98.4 (94.1 - 100.0)	94.1 (91.1 - 97.0)
	50-64	94.3 (91.2 - 97.3)	95.8 (94.1 - 97.5)	96.8 (92.9 - 100.0)	98.6 (94.6 - 100.0)		97.7 (94.8 - 100.0)	93.9 (92.7 - 95.2)
	65-79	94.0 (90.1 - 97.8)	91.3 (88.6 - 93.9)	93.5 (89.1 - 98.0)	85.8 (79.0 - 92.6)		95.6 (91.5 - 99.6)	93.5 (92.1 - 95.0)
	80-99	96.8 (82.2 - 100.0)	78.1 (70.3 - 85.8)	85.0 (67.4 - 100.0)	76.9 (57.8 - 95.9)		86.9 (70.8 - 100.0)	82.3 (77.6 - 87.0)
Stage II	All ages	85.4 (81.7 - 89.2)	77.8 (75.5 - 80.1)	83.7 (80.2 - 87.2)	74.5 (69.8 - 79.1)		83.7 (79.7 - 87.6)	74.7 (72.9 - 76.5)
	15-49	92.3 (85.2 - 99.5)	85.3 (80.3 - 90.3)	84.3 (74.5 - 94.0)	92.1 (82.6 - 100.0)		93.4 (85.6 - 100.0)	83.7 (79.7 - 87.8)
	50-64	86.6 (81.8 - 91.4)	85.5 (82.7 - 88.3)	84.3 (80.7 - 87.8)	79.6 (72.7 - 86.6)		86.8 (81.6 - 91.9)	82.9 (80.8 - 85.0)
	65-79	85.9 (80.4 - 91.4)	79.6 (76.3 - 82.9)	83.3 (79.0 - 87.6)	74.2 (67.6 - 80.7)		88.1 (82.9 - 93.3)	76.1 (73.7 - 78.6)
	80-99	77.9 (63.4 - 92.5)	56.5 (49.4 - 63.5)	76.2 (63.3 - 89.1)	53.0 (37.0 - 69.0)		64.5 (51.3 - 77.6)	48.9 (44.6 - 53.2)
Stage III	All ages	68.3 (64.3 - 72.3)	71.2 (69.3 - 73.0)	76.0 (73.2 - 78.7)	66.7 (63.0 - 70.4)		76.6 (72.4 - 80.8)	64.2 (63.0 - 65.5)
	15-49	79.1 (71.6 - 86.6)	83.7 (80.3 - 87.1)	79.4 (72.1 - 86.7)	83.3 (76.4 - 90.2)		88.3 (79.3 - 97.3)	75.0 (72.2 - 77.9)
	50-64	76.1 (70.8 - 81.4)	80.2 (77.9 - 82.4)	84.3 (80.7 - 87.8)	74.9 (70.4 - 79.4)		82.0 (76.5 - 87.4)	75.3 (73.6 - 76.9)
	65-79	66.4 (60.4 - 72.4)	72.2 (69.4 - 75.0)	75.6 (71.6 - 79.6)	68.4 (62.9 - 73.9)		78.6 (73.0 - 84.2)	64.3 (62.3 - 66.3)
	80-99	52.8 (40.0 - 65.6)	47.0 (40.5 - 53.6)	57.5 (44.9 - 70.1)	36.2 (24.3 - 48.2)		54.4 (40.4 - 68.4)	35.5 (31.9 - 39.2)
Stage IV	All ages	19.0 (15.6 - 22.5)	12.9 (11.4 - 14.5)	22.9 (19.9 - 26.0)	11.4 (8.4 - 14.3)		19.6 (16.7 - 22.5)	8.9 (8.1 - 9.7)
	15-49	37.2 (26.2 - 48.2)	26.6 (20.6 - 32.6)	33.6 (21.4 - 45.7)	17.8 (6.5 - 29.2)		37.8 (27.0 - 48.5)	17.5 (13.8 - 21.3)
	50-64	24.5 (17.9 - 31.0)	17.8 (14.9 - 20.7)	28.7 (23.5 - 33.8)	14.0 (8.8 - 19.2)		29.1 (23.7 - 34.5)	13.5 (11.7 - 15.4)
	65-79	18.1 (12.3 - 23.9)	11.0 (8.6 - 13.3)	18.9 (14.8 - 23.0)	10.3 (5.9 - 14.7)		16.7 (12.4 - 21.0)	6.8 (5.5 - 8.1)
	80-99	2.2 (0.0 - 5.5)	2.5 (0.2 - 4.7)	7.7 (1.3 - 14.0)	3.9 (0.0 - 8.9)		2.2 (0.0 - 4.8)	1.1 (0.5 - 1.8)
<b>Mapped SEER stage<sup>4</sup></b>								
Localised	All ages	89.8 (88.1 - 91.5)	89.2 (87.6 - 90.8)	92.6 (90.2 - 95.1)	83.6 (80.1 - 87.1)	92.6 (88.7 - 96.5)	91.1 (88.6 - 93.6)	85.2 (84.2 - 86.2)
	15-49	97.3 (95.1 - 99.6)	94.7 (92.3 - 97.2)	95.3 (90.4 - 100.0)	93.7 (87.7 - 99.8)	97.8 (92.5 - 100.0)	96.7 (92.8 - 100.0)	91.2 (88.3 - 94.0)
	50-64	91.7 (89.8 - 93.6)	94.3 (92.8 - 95.8)	95.2 (92.6 - 97.7)	90.0 (85.5 - 94.6)	93.5 (89.3 - 97.7)	94.4 (91.6 - 97.2)	89.9 (88.8 - 91.1)
	65-79	89.3 (86.9 - 91.8)	90.2 (87.9 - 92.4)	90.8 (87.6 - 94.0)	82.4 (77.4 - 87.4)	91.8 (86.5 - 97.2)	93.6 (90.2 - 96.9)	86.9 (85.6 - 88.2)
	80-99	82.2 (74.7 - 89.8)	74.1 (68.0 - 80.2)	88.4 (77.3 - 99.5)	66.9 (54.1 - 79.7)	88.5 (73.3 - 100.0)	75.8 (65.8 - 85.9)	67.4 (64.0 - 70.7)
Regional	All ages	73.0 (71.0 - 75.0)	71.5 (69.9 - 73.1)	73.2 (70.6 - 75.9)	66.2 (62.7 - 69.7)	74.4 (70.2 - 78.7)	75.6 (71.7 - 79.6)	62.1 (60.6 - 63.5)
	15-49	83.5 (79.6 - 87.4)	82.9 (79.7 - 86.2)	77.3 (70.1 - 84.4)	84.2 (77.7 - 90.7)	85.7 (78.1 - 93.2)	87.5 (78.8 - 96.2)	73.5 (70.2 - 76.7)
	50-64	79.6 (76.9 - 82.2)	80.6 (78.6 - 82.5)	82.1 (78.6 - 85.6)	74.8 (70.4 - 79.2)	81.2 (75.6 - 86.7)	81.0 (75.7 - 86.2)	73.4 (71.8 - 75.1)
	65-79	71.1 (68.0 - 74.2)	72.3 (70.0 - 74.7)	73.4 (69.6 - 77.1)	66.9 (61.6 - 72.1)	72.9 (67.4 - 78.4)	78.1 (72.1 - 84.1)	62.1 (59.9 - 64.3)
	80-99	57.8 (50.4 - 65.2)	48.3 (42.7 - 53.9)	52.9 (41.9 - 63.9)	36.1 (25.0 - 47.1)	55.4 (41.2 - 69.6)	53.2 (40.2 - 66.2)	32.5 (29.4 - 35.6)
Distant	All ages	17.9 (15.6 - 20.2)	14.4 (12.8 - 16.1)	22.6 (19.6 - 25.7)	11.0 (8.3 - 13.8)	10.0 (6.9 - 13.2)	19.2 (16.4 - 22.0)	8.8 (7.9 - 9.7)
	15-49	32.0 (24.5 - 39.4)	29.1 (22.4 - 35.9)	32.7 (20.8 - 44.7)	17.0 (6.4 - 27.5)	23.5 (8.9 - 38.1)	37.1 (26.0 - 48.1)	17.0 (13.0 - 21.0)
	50-64	24.5 (20.3 - 28.6)	19.7 (16.5 - 22.8)	28.5 (23.4 - 33.7)	13.6 (8.9 - 18.3)	16.8 (9.7 - 24.0)	28.5 (23.2 - 33.9)	13.4 (11.5 - 15.2)
	65-79	15.2 (11.8 - 18.6)	12.7 (10.2 - 15.2)	18.9 (15.1 - 22.7)	9.8 (5.7 - 14.0)	6.4 (2.7 - 10.1)	16.0 (11.6 - 20.4)	6.9 (5.6 - 8.2)
	80-99	3.9 (0.9 - 7.0)	2.9 (1.0 - 4.8)	7.2 (0.8 - 13.5)	3.9 (0.0 - 8.9)	*	2.5 (0.0 - 5.4)	1.1 (0.5 - 1.8)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup> Model2: Age spline allowing separate models for each stage category



**Supplementary Table 4A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for male colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>†</sup>	Canada <sup>†</sup>	Denmark	Ireland <sup>†</sup>	New Zealand	Norway	United Kingdom <sup>†</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	87.3 (86.6 - 88.0)	84.2 (83.7 - 84.7)	82.4 (81.2 - 83.6)	80.2 (78.7 - 81.6)	80.7 (79.3 - 82.1)	81.6 (80.3 - 82.7)	77.8 (77.4 - 78.2)
	15-49	90.5 (88.2 - 92.3)	90.4 (88.7 - 91.8)	89.2 (84.1 - 92.7)	89.2 (84.1 - 92.7)	82.8 (76.9 - 87.3)	87.8 (83.1 - 91.3)	86.0 (84.7 - 87.2)
	50-64	90.8 (89.5 - 91.9)	88.2 (87.3 - 89.0)	86.5 (84.3 - 88.5)	86.5 (84.3 - 88.5)	82.9 (79.9 - 85.4)	86.6 (84.3 - 88.6)	83.4 (82.7 - 84.1)
	65-79	87.5 (86.5 - 88.5)	84.5 (83.6 - 85.2)	82.5 (80.9 - 83.9)	79.8 (77.6 - 81.8)	83.8 (81.9 - 85.5)	82.3 (80.5 - 83.9)	78.4 (77.8 - 78.9)
	80-99	78.2 (76.1 - 80.1)	72.4 (70.9 - 73.9)	69.2 (65.8 - 72.4)	63.1 (58.7 - 67.1)	68.7 (65.1 - 72.1)	66.4 (63.2 - 69.4)	60.5 (59.6 - 61.5)
<b>TNM Stage<sup>§</sup></b>								
Stage I	All ages	98.7 (97.5 - 99.9)	95.7 (95.0 - 96.5)	96.5 (94.7 - 98.3)	97.5 (95.4 - 99.6)		96.2 (94.2 - 98.3)	97.7 (97.2 - 98.2)
	15-49	98.3 (94.9 - 100.0)	97.9 (96.2 - 99.7)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)		99.7 (97.4 - 100.0)	99.7 (98.9 - 100.0)
	50-64	99.6 (98.4 - 100.0)	98.4 (97.6 - 99.3)	100.0 (98.4 - 100.0)	99.7 (97.7 - 100.0)		99.8 (98.1 - 100.0)	99.6 (99.0 - 100.0)
	65-79	98.7 (96.9 - 100.0)	96.1 (95.0 - 97.2)	96.4 (93.6 - 99.3)	98.1 (95.3 - 100.0)		95.7 (92.5 - 99.0)	98.2 (97.4 - 99.0)
	80-99	97.0 (91.9 - 100.0)	88.2 (85.1 - 91.3)	86.5 (77.3 - 95.6)	89.9 (80.1 - 99.7)		88.7 (80.8 - 96.7)	91.7 (88.9 - 94.4)
Stage II	All ages	100.0 (98.9 - 100.0)	94.2 (93.5 - 95.0)	93.8 (92.2 - 95.5)	93.4 (91.5 - 95.2)		96.2 (95.0 - 97.5)	94.0 (93.5 - 94.6)
	15-49	99.3 (97.9 - 100.0)	98.1 (96.4 - 99.7)	100.0 (98.4 - 100.0)	97.2 (93.0 - 100.0)		100.0 (98.6 - 100.0)	99.0 (97.9 - 100.0)
	50-64	96.5 (94.6 - 98.4)	97.7 (96.7 - 98.7)	95.5 (92.7 - 98.3)	97.6 (95.2 - 100.0)		99.1 (97.5 - 100.0)	97.3 (96.6 - 98.1)
	65-79	96.5 (94.6 - 98.4)	94.7 (93.6 - 95.9)	93.2 (91.1 - 95.4)	94.0 (91.3 - 96.8)		96.9 (95.1 - 98.7)	94.4 (93.7 - 95.1)
	80-99	95.2 (91.1 - 99.3)	84.9 (82.3 - 87.5)	87.3 (81.4 - 93.1)	81.1 (74.5 - 87.7)		87.2 (82.2 - 92.3)	83.7 (81.9 - 85.5)
Stage III	All ages	92.3 (90.5 - 94.2)	90.0 (89.1 - 90.9)	91.3 (89.5 - 93.1)	88.7 (86.4 - 91.0)		90.0 (88.1 - 92.0)	88.4 (87.8 - 89.1)
	15-49	94.5 (90.2 - 98.9)	97.2 (95.4 - 99.0)	96.2 (90.9 - 100.0)	98.4 (95.0 - 100.0)		97.9 (93.8 - 100.0)	95.3 (93.7 - 96.8)
	50-64	97.1 (94.9 - 99.4)	94.0 (92.7 - 95.2)	95.7 (93.1 - 98.4)	95.6 (92.9 - 98.3)		94.8 (92.0 - 97.7)	93.4 (92.5 - 94.4)
	65-79	93.2 (90.5 - 95.9)	90.1 (88.7 - 91.5)	91.8 (89.2 - 94.5)	89.4 (86.1 - 92.6)		90.3 (87.2 - 93.4)	89.2 (88.2 - 90.2)
	80-99	80.4 (74.2 - 86.5)	78.1 (74.9 - 81.2)	77.0 (69.7 - 84.2)	65.8 (57.2 - 74.4)		76.1 (69.7 - 82.4)	72.8 (70.9 - 74.7)
Stage IV	All ages	58.5 (55.3 - 61.7)	48.6 (47.1 - 50.2)	53.9 (51.0 - 56.9)	46.0 (42.5 - 49.5)		51.9 (49.1 - 54.8)	42.0 (41.1 - 42.9)
	15-49	67.8 (57.8 - 77.7)	67.4 (62.3 - 72.4)	67.7 (55.8 - 79.6)	65.2 (52.6 - 77.7)		62.9 (52.1 - 73.7)	55.2 (51.5 - 58.8)
	50-64	69.0 (63.0 - 74.9)	58.4 (55.6 - 61.2)	63.2 (57.9 - 68.6)	58.4 (51.8 - 65.0)		63.1 (57.7 - 68.5)	51.7 (49.9 - 53.6)
	65-79	59.7 (54.8 - 64.7)	45.9 (43.5 - 48.2)	52.0 (48.2 - 55.7)	41.9 (37.0 - 46.9)		51.7 (47.6 - 55.7)	39.6 (38.3 - 40.8)
	80-99	31.5 (25.1 - 37.9)	25.2 (22.2 - 28.2)	32.2 (25.5 - 38.9)	21.2 (14.5 - 27.8)		24.7 (19.8 - 29.7)	20.5 (19.2 - 21.9)
<b>Mapped SEER stage<sup>¶</sup></b>								
Localised	All ages	98.1 (97.4 - 98.7)	96.0 (95.4 - 96.6)	96.2 (95.1 - 97.3)	96.2 (94.8 - 97.7)	98.0 (96.6 - 99.3)	96.3 (95.3 - 97.4)	96.1 (95.7 - 96.4)
	15-49	99.0 (97.7 - 100.0)	98.5 (97.2 - 99.7)	99.6 (97.2 - 100.0)	98.7 (95.9 - 100.0)	100.0 (100.0 - 100.0)	99.8 (98.3 - 100.0)	99.5 (98.9 - 100.0)
	50-64	99.4 (98.7 - 100.0)	98.7 (98.1 - 99.4)	98.3 (96.6 - 100.0)	99.6 (98.3 - 100.0)	100.0 (99.8 - 100.0)	99.5 (98.4 - 100.0)	98.8 (98.3 - 99.2)
	65-79	98.2 (97.2 - 99.1)	96.1 (95.2 - 97.0)	96.0 (94.4 - 97.5)	96.7 (94.6 - 98.7)	98.6 (96.8 - 100.0)	99.5 (98.4 - 100.0)	96.4 (95.9 - 97.0)
	80-99	94.7 (92.1 - 97.3)	89.1 (86.9 - 91.3)	90.0 (85.4 - 94.5)	86.7 (80.4 - 93.1)	90.9 (84.6 - 97.1)	96.6 (95.0 - 98.3)	87.7 (86.3 - 89.2)
Regional	All ages	94.3 (93.4 - 95.1)	90.7 (90.0 - 91.5)	90.0 (88.2 - 91.7)	88.8 (86.8 - 90.7)	92.1 (90.6 - 93.7)	90.5 (88.7 - 92.4)	87.5 (86.9 - 88.1)
	15-49	96.8 (94.8 - 98.8)	96.9 (95.3 - 98.5)	97.3 (93.5 - 100.0)	97.9 (94.9 - 100.0)	96.0 (91.6 - 100.0)	98.0 (94.3 - 100.0)	95.2 (93.7 - 96.6)
	50-64	97.2 (96.0 - 98.3)	94.8 (93.7 - 95.8)	94.6 (91.9 - 97.2)	95.0 (92.3 - 97.6)	94.7 (92.0 - 97.4)	95.2 (92.6 - 97.8)	92.9 (92.0 - 93.8)
	65-79	94.2 (93.0 - 95.5)	90.9 (89.7 - 92.0)	90.1 (87.7 - 92.5)	89.4 (86.4 - 92.3)	94.3 (92.4 - 96.2)	91.1 (88.3 - 93.8)	87.8 (86.9 - 88.7)
	80-99	87.2 (84.2 - 90.3)	79.2 (76.7 - 81.8)	75.5 (69.1 - 82.0)	68.7 (61.6 - 75.8)	80.0 (75.0 - 85.0)	76.6 (70.6 - 82.6)	71.4 (69.5 - 73.2)
Distant	All ages	56.3 (54.2 - 58.3)	49.7 (48.2 - 51.2)	53.9 (50.9 - 56.8)	45.6 (42.2 - 49.1)	46.9 (43.6 - 50.2)	52.0 (49.2 - 54.9)	41.3 (40.4 - 42.2)
	15-49	69.3 (63.0 - 75.6)	68.3 (63.3 - 73.2)	68.3 (56.6 - 79.9)	64.7 (52.1 - 77.3)	55.0 (43.4 - 66.5)	63.1 (52.3 - 73.8)	53.6 (50.0 - 57.2)
	50-64	66.8 (62.9 - 70.7)	59.2 (56.5 - 61.9)	63.4 (57.9 - 68.9)	58.3 (51.7 - 64.9)	52.4 (45.8 - 59.0)	63.1 (57.7 - 68.4)	50.9 (49.1 - 52.7)
	65-79	54.4 (51.2 - 57.6)	47.3 (44.9 - 49.7)	52.0 (48.2 - 55.8)	41.7 (36.8 - 46.6)	48.0 (43.3 - 52.7)	51.9 (47.8 - 56.0)	39.3 (38.1 - 40.5)
	80-99	32.3 (28.0 - 36.7)	26.0 (23.0 - 29.0)	31.2 (24.8 - 37.7)	20.1 (13.7 - 26.5)	29.2 (23.1 - 35.4)	24.6 (19.7 - 29.5)	20.2 (18.7 - 21.6)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>‡</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England,

Northern Ireland, Scotland, and Wales

<sup>§</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 4B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for male colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>†</sup>	Canada <sup>†</sup>	Denmark	Ireland <sup>†</sup>	New Zealand	Norway	United Kingdom <sup>†</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	70.4 (69.3 - 71.4)	70.6 (69.8 - 71.3)	64.7 (62.8 - 66.5)	60.4 (58.5 - 62.2)	61.8 (59.9 - 63.6)	63.0 (61.3 - 64.7)	59.3 (58.8 - 59.8)
	15-49	72.3 (69.1 - 75.3)	72.1 (69.7 - 74.4)	66.9 (60.1 - 72.9)	72.6 (66.6 - 77.8)	67.7 (60.9 - 73.6)	66.9 (60.6 - 72.5)	66.6 (64.8 - 68.3)
	50-64	72.4 (70.6 - 74.1)	72.4 (71.2 - 73.6)	65.7 (62.6 - 68.6)	64.6 (61.3 - 67.6)	62.7 (59.2 - 66.0)	67.1 (64.0 - 70.0)	63.3 (62.4 - 64.2)
	65-79	71.1 (69.6 - 72.6)	71.0 (69.9 - 72.1)	64.5 (62.1 - 66.7)	59.9 (57.2 - 62.5)	63.4 (60.8 - 65.9)	62.4 (59.9 - 64.8)	60.9 (60.2 - 61.6)
	80-99	63.6 (60.1 - 66.9)	65.4 (62.9 - 67.9)	62.1 (55.3 - 68.1)	44.7 (38.8 - 50.4)	52.6 (47.1 - 57.8)	53.6 (48.5 - 58.3)	42.9 (41.5 - 44.2)
<b>TNM Stage<sup>§</sup></b>								
Stage I	All ages	95.7 (92.9 - 98.5)	93.4 (91.8 - 94.9)	92.4 (87.6 - 97.3)	93.4 (89.1 - 97.7)		92.1 (88.1 - 96.1)	95.1 (93.9 - 96.4)
	15-49	95.1 (88.7 - 100.0)	92.8 (88.9 - 96.6)	100.0 (96.3 - 100.0)	93.1 (82.1 - 100.0)		100.0 (98.0 - 100.0)	95.2 (92.2 - 98.1)
	50-64	96.0 (92.8 - 99.3)	95.0 (93.2 - 96.9)	91.4 (85.1 - 97.7)	98.8 (94.6 - 100.0)		97.6 (93.1 - 100.0)	95.7 (94.0 - 97.3)
	65-79	96.5 (92.9 - 100.0)	94.1 (91.8 - 96.4)	91.7 (85.5 - 98.0)	94.3 (88.6 - 100.0)		87.3 (81.2 - 93.3)	96.8 (95.2 - 98.3)
	80-99	93.1 (80.9 - 100.0)	88.7 (82.1 - 95.2)	92.4 (70.2 - 100.0)	82.3 (63.7 - 100.0)		89.3 (72.7 - 100.0)	91.0 (83.0 - 99.0)
Stage II	All ages	89.7 (87.2 - 92.2)	86.8 (85.3 - 88.3)	90.1 (87.2 - 93.0)	85.3 (82.2 - 88.3)		90.3 (87.7 - 92.8)	85.9 (84.9 - 86.8)
	15-49	96.1 (91.0 - 100.0)	92.0 (88.6 - 95.4)	92.7 (84.8 - 100.0)	93.0 (86.7 - 99.4)		94.9 (89.2 - 100.0)	89.6 (86.7 - 92.5)
	50-64	91.5 (87.8 - 95.3)	89.5 (87.4 - 91.6)	78.5 (73.5 - 83.6)	90.0 (85.7 - 94.2)		94.6 (91.3 - 97.9)	88.4 (86.8 - 89.9)
	65-79	87.6 (84.0 - 91.2)	85.1 (82.8 - 87.4)	86.8 (82.9 - 90.6)	85.3 (80.8 - 89.8)		90.6 (87.0 - 94.2)	87.0 (85.8 - 88.3)
	80-99	86.7 (77.0 - 96.4)	82.6 (77.5 - 87.7)	96.9 (83.9 - 100.0)	70.5 (58.3 - 82.7)		77.8 (68.3 - 87.4)	76.1 (72.5 - 79.8)
Stage III	All ages	68.0 (64.8 - 71.2)	70.0 (68.2 - 71.8)	74.6 (71.1 - 78.0)	65.0 (61.6 - 68.3)		68.9 (65.5 - 72.3)	63.4 (62.1 - 64.8)
	15-49	77.4 (69.1 - 85.8)	78.1 (73.8 - 82.4)	80.1 (70.1 - 90.0)	81.7 (73.1 - 90.3)		75.6 (64.2 - 87.1)	74.8 (71.2 - 78.4)
	50-64	75.9 (70.9 - 80.9)	77.5 (75.3 - 79.8)	78.5 (73.5 - 83.6)	75.1 (70.1 - 80.1)		74.4 (68.8 - 79.9)	71.2 (69.6 - 72.8)
	65-79	67.3 (62.5 - 72.0)	69.5 (66.6 - 72.4)	76.5 (71.8 - 81.2)	64.3 (59.3 - 69.3)		68.4 (63.4 - 73.3)	64.3 (62.5 - 66.1)
	80-99	50.4 (40.3 - 60.4)	52.7 (47.5 - 57.9)	57.1 (44.4 - 69.8)	33.7 (24.0 - 43.5)		54.8 (44.7 - 64.9)	39.0 (35.7 - 42.3)
Stage IV	All ages	15.7 (13.1 - 18.2)	11.7 (10.7 - 12.8)	15.8 (13.5 - 18.1)	9.8 (7.9 - 11.7)		15.0 (12.8 - 17.2)	8.2 (7.4 - 9.0)
	15-49	28.3 (19.1 - 37.4)	20.7 (16.2 - 25.2)	17.8 (8.4 - 27.1)	27.0 (15.5 - 38.4)		21.7 (12.8 - 30.7)	16.1 (12.2 - 20.0)
	50-64	16.5 (11.9 - 21.2)	16.0 (14.0 - 18.0)	21.4 (16.9 - 25.8)	11.8 (7.9 - 15.7)		21.7 (17.0 - 26.5)	11.1 (9.9 - 12.4)
	65-79	15.5 (11.5 - 19.5)	10.2 (8.6 - 11.9)	13.7 (10.8 - 16.6)	7.5 (5.1 - 10.0)		10.9 (8.2 - 13.6)	6.7 (5.9 - 7.5)
	80-99	5.9 (1.7 - 10.1)	2.3 (1.0 - 3.6)	9.7 (4.3 - 15.1)	1.7 (0.0 - 4.2)		8.3 (4.1 - 12.5)	1.5 (0.9 - 2.1)
<b>Mapped SEER stage<sup>¶</sup></b>								
Localised	All ages	94.5 (93.1 - 95.9)	92.7 (91.5 - 93.8)	94.1 (91.6 - 96.6)	91.7 (89.0 - 94.4)	93.9 (91.0 - 96.8)	91.6 (89.4 - 93.8)	90.9 (90.1 - 91.7)
	15-49	95.2 (92.4 - 98.1)	93.4 (90.4 - 96.4)	95.7 (90.0 - 100.0)	97.1 (92.6 - 100.0)	100.0 (97.0 - 100.0)	97.9 (94.1 - 100.0)	93.1 (91.4 - 94.8)
	50-64	96.3 (94.6 - 97.9)	94.5 (93.1 - 95.9)	93.7 (90.1 - 97.2)	96.8 (93.8 - 99.8)	95.0 (91.2 - 98.7)	96.2 (93.5 - 98.8)	92.4 (91.2 - 93.5)
	65-79	94.5 (92.6 - 96.5)	92.1 (90.3 - 93.8)	91.8 (88.5 - 95.2)	91.9 (88.3 - 95.5)	93.7 (89.7 - 97.7)	90.0 (86.8 - 93.1)	92.1 (91.0 - 93.2)
	80-99	90.7 (84.8 - 96.5)	90.3 (85.4 - 95.2)	100.0 (88.3 - 100.0)	77.2 (65.8 - 88.6)	87.7 (75.5 - 99.9)	82.0 (73.2 - 90.7)	84.1 (80.9 - 87.4)
Regional	All ages	77.3 (75.6 - 78.9)	74.2 (72.9 - 75.5)	73.9 (70.8 - 77.0)	66.2 (63.2 - 69.2)	73.6 (70.8 - 76.3)	70.3 (67.1 - 73.6)	63.0 (61.8 - 64.1)
	15-49	86.4 (82.5 - 90.4)	81.8 (78.3 - 85.2)	83.0 (74.4 - 91.5)	82.7 (75.5 - 89.9)	84.6 (77.0 - 92.2)	77.1 (66.9 - 87.3)	74.3 (71.2 - 77.4)
	50-64	80.7 (78.2 - 83.3)	80.2 (78.3 - 82.1)	77.5 (72.8 - 82.3)	74.8 (70.2 - 79.3)	76.4 (71.4 - 81.4)	75.9 (70.7 - 81.1)	70.7 (68.8 - 72.5)
	65-79	76.0 (73.6 - 78.3)	73.1 (71.1 - 75.1)	74.3 (70.1 - 78.4)	64.7 (60.4 - 69.1)	73.8 (70.1 - 77.5)	70.4 (65.8 - 74.9)	63.4 (62.0 - 64.9)
	80-99	68.5 (62.8 - 74.3)	61.3 (57.2 - 65.4)	59.6 (47.6 - 71.5)	40.4 (30.6 - 50.2)	60.1 (51.5 - 68.6)	56.0 (46.0 - 65.9)	39.4 (36.1 - 42.6)
Distant	All ages	16.4 (14.7 - 18.0)	13.4 (12.3 - 14.6)	15.7 (13.3 - 18.2)	9.8 (7.8 - 11.7)	12.1 (9.9 - 14.4)	15.0 (12.8 - 17.3)	7.8 (7.1 - 8.4)
	15-49	24.8 (19.0 - 30.5)	22.2 (17.7 - 26.8)	17.7 (7.9 - 27.4)	25.5 (14.6 - 36.4)	21.0 (10.1 - 31.8)	21.8 (12.6 - 30.9)	13.9 (10.6 - 17.2)
	50-64	20.3 (17.0 - 23.5)	18.1 (16.0 - 20.1)	21.3 (16.8 - 25.7)	11.9 (8.0 - 15.8)	15.3 (10.6 - 20.1)	21.5 (16.8 - 26.1)	10.8 (9.4 - 12.1)
	65-79	14.9 (12.5 - 17.2)	12.0 (10.2 - 13.7)	13.8 (10.8 - 16.7)	7.6 (5.2 - 10.1)	9.9 (7.0 - 12.9)	11.1 (8.3 - 13.9)	6.5 (5.7 - 7.4)
	80-99	7.2 (4.2 - 10.1)	3.2 (1.8 - 4.6)	9.3 (4.1 - 14.5)	1.7 (0.0 - 4.4)	6.2 (1.3 - 11.0)	8.0 (3.9 - 12.2)	1.3 (0.8 - 1.9)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>‡</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>§</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 5A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for female colon cancer patients diagnosed during 2010-2014

Stage	Australia <sup>1</sup>		Canada <sup>1</sup>		Denmark		Ireland <sup>1</sup>		New Zealand		Norway		United Kingdom <sup>1</sup>	
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>2</sup>	All ages	87.7 (87.1 - 88.4)	84.3 (83.8 - 84.9)	82.9 (81.7 - 83.9)	79.8 (78.1 - 81.3)	80.9 (79.5 - 82.2)	83.5 (82.4 - 84.6)	76.3 (75.9 - 76.7)						
	15-49	93.4 (91.5 - 94.8)	92.3 (90.8 - 93.5)	90.1 (85.4 - 93.3)	90.1 (85.4 - 93.3)	86.4 (81.7 - 90.0)	90.5 (86.6 - 93.3)	87.3 (86.0 - 88.4)						
	50-64	92.1 (90.9 - 93.2)	89.8 (88.8 - 90.6)	87.7 (85.5 - 89.6)	87.7 (85.5 - 89.6)	85.6 (82.7 - 88.1)	88.1 (85.8 - 90.1)	84.2 (83.4 - 85.0)						
	65-79	88.1 (87.0 - 89.1)	84.3 (83.4 - 85.2)	82.6 (81.0 - 84.1)	81.2 (78.6 - 83.5)	81.7 (79.7 - 83.6)	84.1 (82.3 - 85.6)	76.9 (76.3 - 77.5)						
	80-99	75.8 (74.0 - 77.5)	70.5 (69.2 - 71.8)	69.6 (66.7 - 72.2)	57.7 (53.5 - 61.6)	67.2 (64.1 - 70.1)	70.8 (68.1 - 73.2)	55.2 (54.4 - 56.1)						
<b>TNM Stage<sup>3</sup></b>														
Stage I	All ages	99.6 (98.5 - 100.0)	96.3 (95.5 - 97.0)	97.6 (95.8 - 99.4)	97.3 (94.8 - 99.7)		98.2 (96.7 - 99.6)	98.0 (97.4 - 98.6)						
	15-49	100.0 (100.0 - 100.0)	99.4 (98.6 - 100.0)	97.0 (91.1 - 100.0)	100.0 (100.0 - 100.0)		99.9 (98.5 - 100.0)	99.7 (99.0 - 100.0)						
	50-64	99.7 (98.6 - 100.0)	99.1 (98.3 - 99.8)	98.1 (95.3 - 100.0)	99.0 (96.2 - 100.0)		99.4 (97.2 - 100.0)	99.2 (98.5 - 99.8)						
	65-79	99.3 (97.8 - 100.0)	97.3 (96.3 - 98.4)	98.6 (96.5 - 100.0)	98.7 (96.0 - 100.0)		99.0 (97.0 - 100.0)	99.2 (98.5 - 99.9)						
	80-99	100.0 (95.8 - 100.0)	87.7 (84.8 - 90.6)	94.3 (87.0 - 100.0)	88.5 (77.7 - 99.4)		94.3 (89.0 - 99.6)	92.0 (89.6 - 94.5)						
Stage II	All ages	100.0 (100.0 - 100.0)	94.2 (93.5 - 95.0)	94.0 (92.7 - 95.3)	92.5 (90.6 - 94.3)		96.4 (95.3 - 97.5)	93.0 (92.4 - 93.6)						
	15-49	99.8 (98.7 - 100.0)	98.4 (96.8 - 99.9)	96.9 (90.9 - 100.0)	100.0 (100.0 - 100.0)		100.0 (100.0 - 100.0)	98.0 (96.8 - 99.2)						
	50-64	97.7 (96.0 - 99.5)	96.9 (95.8 - 98.1)	96.8 (94.6 - 98.9)	99.1 (97.3 - 100.0)		99.6 (98.6 - 100.0)	97.4 (96.6 - 98.1)						
	65-79	97.7 (96.0 - 99.5)	95.1 (93.9 - 96.2)	94.7 (92.8 - 96.5)	91.3 (88.0 - 94.5)		95.8 (94.0 - 97.5)	94.2 (93.4 - 95.0)						
	80-99	90.5 (86.5 - 94.4)	85.9 (83.7 - 88.2)	85.2 (81.0 - 89.4)	77.3 (70.2 - 84.3)		91.3 (87.8 - 94.8)	80.1 (78.0 - 82.2)						
Stage III	All ages	92.9 (91.3 - 94.4)	89.4 (88.5 - 90.4)	89.8 (88.0 - 91.6)	87.2 (84.7 - 89.7)		92.3 (90.6 - 94.0)	85.8 (85.1 - 86.5)						
	15-49	97.5 (94.6 - 100.0)	98.2 (96.8 - 99.6)	95.6 (90.9 - 100.0)	95.9 (91.9 - 99.9)		100.0 (100.0 - 100.0)	96.7 (95.5 - 97.9)						
	50-64	98.1 (96.4 - 99.8)	95.8 (94.6 - 96.9)	94.1 (91.1 - 97.0)	95.1 (91.8 - 98.5)		96.8 (94.4 - 99.2)	94.1 (93.0 - 95.1)						
	65-79	91.8 (89.0 - 94.6)	89.7 (88.1 - 91.2)	91.5 (88.8 - 94.1)	90.0 (86.1 - 93.8)		93.5 (91.0 - 96.0)	86.1 (84.9 - 87.3)						
	80-99	81.5 (76.3 - 86.7)	73.1 (70.4 - 75.9)	73.6 (67.5 - 79.8)	63.1 (55.3 - 71.0)		78.3 (72.8 - 83.7)	64.4 (62.4 - 66.3)						
Stage IV	All ages	57.7 (54.3 - 61.1)	48.6 (47.0 - 50.2)	54.0 (51.1 - 56.9)	44.5 (40.4 - 48.6)		51.3 (48.4 - 54.1)	40.4 (39.4 - 41.4)						
	15-49	78.9 (70.9 - 86.9)	71.0 (66.2 - 75.7)	75.2 (64.5 - 85.8)	71.1 (57.7 - 84.5)		69.1 (59.7 - 78.5)	61.6 (58.3 - 64.8)						
	50-64	70.9 (64.9 - 77.0)	63.2 (60.3 - 66.2)	68.0 (62.6 - 73.4)	55.7 (47.7 - 63.7)		64.3 (58.6 - 70.1)	53.1 (51.1 - 55.2)						
	65-79	52.7 (46.9 - 58.5)	43.6 (41.0 - 46.2)	48.1 (43.9 - 52.4)	42.7 (36.3 - 49.1)		47.5 (43.0 - 52.0)	35.3 (33.9 - 36.7)						
	80-99	32.0 (25.7 - 38.3)	20.1 (17.6 - 22.5)	29.2 (23.8 - 34.5)	16.2 (10.3 - 22.0)		24.6 (20.3 - 29.0)	16.4 (15.3 - 17.5)						
<b>Mapped SEER stage<sup>4</sup></b>														
Localised	All ages	98.2 (97.6 - 98.8)	96.1 (95.5 - 96.6)	97.6 (96.6 - 98.6)	96.5 (95.1 - 97.9)	98.6 (97.4 - 99.7)	97.5 (96.6 - 98.4)	96.0 (95.7 - 96.4)						
	15-49	100.0 (99.8 - 100.0)	99.2 (98.4 - 100.0)	98.0 (94.2 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.9 (99.0 - 100.0)	99.1 (98.5 - 99.7)						
	50-64	99.6 (99.0 - 100.0)	98.3 (97.6 - 99.0)	98.7 (97.2 - 100.0)	99.7 (98.4 - 100.0)	99.0 (97.0 - 100.0)	99.7 (98.5 - 100.0)	98.6 (98.1 - 99.1)						
	65-79	99.0 (98.2 - 99.8)	97.2 (96.3 - 98.1)	97.7 (96.2 - 99.2)	96.8 (94.6 - 99.0)	99.4 (97.9 - 100.0)	99.7 (98.5 - 100.0)	97.4 (96.8 - 98.0)						
	80-99	92.8 (90.5 - 95.2)	88.2 (86.3 - 90.1)	94.8 (91.4 - 98.2)	87.4 (81.9 - 93.0)	94.4 (89.7 - 99.0)	97.6 (96.2 - 99.0)	86.9 (85.4 - 88.4)						
Regional	All ages	94.0 (93.2 - 94.8)	90.7 (89.9 - 91.4)	87.4 (85.7 - 89.0)	86.2 (84.0 - 88.5)	92.8 (91.5 - 94.1)	91.9 (90.4 - 93.4)	84.7 (84.1 - 85.3)						
	15-49	97.9 (96.4 - 99.5)	97.9 (96.6 - 99.2)	94.8 (89.9 - 99.6)	96.5 (93.1 - 100.0)	97.5 (94.5 - 100.0)	99.8 (98.1 - 100.0)	96.4 (95.0 - 97.7)						
	50-64	98.1 (97.1 - 99.1)	96.1 (95.2 - 97.1)	92.2 (89.2 - 95.2)	95.1 (92.0 - 98.2)	97.6 (95.8 - 99.5)	97.2 (95.1 - 99.2)	93.7 (92.7 - 94.7)						
	65-79	94.1 (92.8 - 95.3)	90.9 (89.7 - 92.1)	89.6 (87.0 - 92.2)	87.5 (84.0 - 91.0)	92.5 (90.5 - 94.6)	92.4 (90.0 - 94.8)	84.9 (83.9 - 85.9)						
	80-99	84.0 (81.3 - 86.6)	76.7 (74.6 - 78.8)	68.3 (63.3 - 73.2)	61.4 (54.8 - 68.0)	81.6 (77.7 - 85.5)	78.2 (73.5 - 82.9)	61.9 (60.4 - 63.5)						
Distant	All ages	56.7 (54.5 - 58.8)	50.4 (48.9 - 52.0)	54.5 (51.7 - 57.4)	44.6 (40.4 - 48.9)	46.2 (43.0 - 49.4)	51.5 (48.6 - 54.3)	39.8 (38.9 - 40.8)						
	15-49	76.7 (71.2 - 82.2)	71.8 (67.1 - 76.5)	75.2 (64.7 - 85.7)	71.6 (57.9 - 85.4)	65.2 (55.7 - 74.7)	69.0 (59.6 - 78.5)	59.4 (55.9 - 63.0)						
	50-64	71.9 (68.0 - 75.7)	64.9 (62.0 - 67.7)	68.5 (63.0 - 74.0)	55.7 (47.8 - 63.7)	58.5 (51.8 - 65.2)	64.4 (58.7 - 70.1)	52.6 (50.6 - 54.7)						
	65-79	51.9 (48.4 - 55.5)	45.7 (43.2 - 48.3)	48.8 (44.6 - 53.1)	42.9 (36.4 - 49.4)	42.0 (37.2 - 46.9)	47.8 (43.3 - 52.2)	34.9 (33.5 - 36.4)						
	80-99	27.9 (24.1 - 31.7)	22.6 (20.1 - 25.2)	29.1 (23.9 - 34.3)	16.0 (10.2 - 21.8)	22.5 (17.7 - 27.3)	25.0 (20.5 - 29.5)	16.1 (14.7 - 17.5)						

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 5B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for female colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>2</sup>	All ages	71.6 (70.5 - 72.6)	71.0 (70.2 - 71.7)	66.2 (64.5 - 67.9)	61.4 (59.4 - 63.4)	62.4 (60.5 - 64.2)	67.5 (65.9 - 69.1)	58.8 (58.3 - 59.4)
	15-49	75.0 (71.9 - 77.7)	75.7 (73.4 - 77.8)	65.8 (59.3 - 71.6)	72.7 (66.6 - 77.8)	59.9 (53.9 - 65.4)	71.0 (65.6 - 75.8)	67.6 (65.9 - 69.2)
	50-64	73.8 (71.9 - 75.6)	73.4 (72.1 - 74.6)	68.0 (65.0 - 70.8)	66.5 (62.8 - 69.9)	63.7 (60.1 - 67.1)	68.7 (65.6 - 71.6)	65.2 (64.2 - 66.2)
	65-79	72.6 (71.0 - 74.1)	70.9 (69.7 - 72.1)	64.7 (62.4 - 66.9)	61.7 (58.6 - 64.6)	65.7 (63.1 - 68.2)	68.3 (66.0 - 70.5)	60.2 (59.4 - 61.0)
	80-99	63.2 (60.3 - 65.9)	64.0 (61.9 - 66.0)	66.4 (61.4 - 70.8)	44.6 (39.3 - 49.7)	53.8 (49.4 - 58.0)	62.1 (57.9 - 66.1)	40.0 (38.9 - 41.1)
<b>TNM Stage<sup>3</sup></b>								
Stage I	All ages	99.3 (97.0 - 100.0)	94.1 (92.5 - 95.7)	99.6 (95.6 - 100.0)	91.7 (87.4 - 96.1)		97.3 (93.8 - 100.0)	96.2 (94.8 - 97.6)
	15-49	98.9 (96.1 - 100.0)	97.1 (94.5 - 99.7)	87.1 (75.8 - 98.3)	97.8 (92.6 - 100.0)		100.0 (98.9 - 100.0)	96.4 (94.0 - 98.8)
	50-64	96.7 (93.7 - 99.7)	96.2 (94.4 - 98.0)	96.9 (92.3 - 100.0)	92.1 (86.3 - 97.8)		93.1 (87.1 - 99.1)	96.4 (95.0 - 97.8)
	65-79	96.0 (92.5 - 99.5)	95.4 (93.0 - 97.7)	98.9 (93.7 - 100.0)	94.0 (87.9 - 100.0)		99.2 (95.0 - 100.0)	97.8 (96.0 - 99.6)
	80-99	100.0 (100.0 - 100.0)	86.2 (80.2 - 92.2)	100.0 (97.5 - 100.0)	80.7 (64.3 - 97.1)		100.0 (88.1 - 100.0)	92.5 (86.7 - 98.3)
Stage II	All ages	89.5 (87.1 - 91.8)	88.5 (87.2 - 89.9)	89.6 (87.0 - 92.2)	84.7 (81.7 - 87.7)		91.0 (88.8 - 93.3)	85.2 (84.4 - 86.0)
	15-49	91.5 (85.3 - 97.7)	94.0 (90.5 - 97.5)	88.7 (79.4 - 97.9)	95.7 (90.2 - 100.0)		94.8 (89.9 - 99.6)	90.9 (88.2 - 93.6)
	50-64	96.9 (94.1 - 99.6)	90.3 (88.2 - 92.4)	77.9 (73.0 - 82.8)	93.9 (90.0 - 97.8)		92.6 (89.2 - 96.1)	89.4 (87.9 - 91.0)
	65-79	88.1 (84.5 - 91.6)	88.0 (86.0 - 90.0)	87.0 (83.5 - 90.5)	79.9 (75.1 - 84.7)		89.7 (86.6 - 92.9)	86.2 (84.7 - 87.7)
	80-99	80.3 (72.2 - 88.4)	84.1 (79.7 - 88.5)	94.5 (85.6 - 100.0)	72.3 (61.8 - 82.9)		89.4 (81.8 - 97.1)	72.7 (69.9 - 75.5)
Stage III	All ages	72.4 (69.4 - 75.4)	69.8 (68.1 - 71.5)	74.0 (71.0 - 77.0)	65.4 (61.7 - 69.0)		72.6 (69.5 - 75.7)	62.7 (61.6 - 63.7)
	15-49	81.0 (73.4 - 88.5)	84.2 (80.3 - 88.1)	80.3 (70.1 - 90.6)	84.6 (77.4 - 91.9)		80.7 (71.8 - 89.5)	79.2 (76.4 - 82.0)
	50-64	79.3 (74.5 - 84.2)	78.0 (75.5 - 80.5)	77.9 (73.0 - 82.8)	73.3 (67.4 - 79.1)		79.8 (74.7 - 84.9)	73.0 (71.0 - 75.1)
	65-79	69.5 (64.9 - 74.1)	67.6 (65.0 - 70.3)	72.8 (68.5 - 77.1)	66.1 (60.5 - 71.7)		69.3 (64.6 - 74.0)	61.9 (60.3 - 63.6)
	80-99	58.9 (49.9 - 67.8)	51.7 (47.5 - 56.0)	64.1 (53.8 - 74.3)	37.1 (26.6 - 47.6)		61.6 (52.9 - 70.2)	35.8 (33.2 - 38.4)
Stage IV	All ages	16.0 (13.5 - 18.6)	11.2 (10.0 - 12.4)	16.6 (14.3 - 18.9)	11.5 (9.1 - 13.9)		17.6 (15.2 - 20.0)	8.9 (8.3 - 9.6)
	15-49	28.0 (18.7 - 37.3)	21.5 (16.6 - 26.4)	24.9 (14.7 - 35.1)	14.7 (5.1 - 24.2)		24.2 (15.0 - 33.3)	17.1 (13.7 - 20.5)
	50-64	22.5 (17.3 - 27.7)	16.1 (13.8 - 18.4)	25.2 (20.3 - 30.1)	17.9 (12.6 - 23.1)		24.4 (19.3 - 29.5)	13.8 (12.2 - 15.5)
	65-79	13.6 (9.6 - 17.6)	8.9 (7.0 - 10.8)	12.1 (9.3 - 15.0)	9.2 (6.1 - 12.4)		15.2 (11.8 - 18.5)	6.6 (5.7 - 7.4)
	80-99	2.9 (0.5 - 5.2)	1.6 (0.7 - 2.4)	7.3 (3.8 - 10.8)	2.5 (0.3 - 4.6)		6.0 (3.1 - 9.0)	1.2 (0.7 - 1.7)
<b>Mapped SEER stage<sup>4</sup></b>								
Localised	All ages	95.7 (94.4 - 96.9)	93.3 (92.2 - 94.5)	97.6 (95.5 - 99.7)	91.0 (88.4 - 93.6)	95.2 (92.6 - 97.8)	94.4 (92.4 - 96.3)	91.9 (91.0 - 92.8)
	15-49	97.7 (95.4 - 99.9)	95.8 (92.9 - 98.7)	91.6 (84.8 - 98.4)	98.0 (94.4 - 100.0)	95.3 (89.3 - 100.0)	97.7 (94.6 - 100.0)	94.6 (93.0 - 96.1)
	50-64	96.7 (95.1 - 98.3)	94.5 (93.0 - 95.9)	94.9 (91.9 - 98.0)	94.8 (91.6 - 98.0)	96.0 (92.4 - 99.6)	93.1 (89.9 - 96.3)	93.9 (92.5 - 95.2)
	65-79	95.2 (93.5 - 96.9)	93.0 (91.3 - 94.8)	94.3 (91.3 - 97.2)	91.2 (87.3 - 95.1)	94.5 (91.1 - 98.0)	94.3 (91.6 - 97.0)	93.1 (91.9 - 94.3)
	80-99	93.9 (89.0 - 98.9)	90.0 (86.1 - 93.9)	100.0 (100.0 - 100.0)	79.5 (69.6 - 89.4)	95.1 (84.7 - 100.0)	94.9 (87.9 - 100.0)	84.5 (81.7 - 87.2)
Regional	All ages	78.0 (76.5 - 79.5)	75.2 (73.9 - 76.5)	71.4 (68.7 - 74.1)	66.4 (63.2 - 69.5)	74.0 (71.4 - 76.5)	73.1 (70.2 - 75.9)	61.8 (60.7 - 62.9)
	15-49	86.1 (82.2 - 90.0)	86.9 (83.9 - 90.0)	78.1 (68.3 - 87.9)	85.4 (78.9 - 92.0)	75.9 (68.3 - 83.5)	80.3 (72.0 - 88.7)	78.2 (75.5 - 80.9)
	50-64	84.3 (81.8 - 86.8)	81.7 (79.7 - 83.7)	76.1 (71.5 - 80.7)	75.0 (69.6 - 80.3)	78.4 (73.6 - 83.2)	81.2 (76.4 - 86.0)	72.8 (70.9 - 74.7)
	65-79	76.3 (74.0 - 78.6)	74.0 (72.0 - 76.0)	71.4 (67.4 - 75.3)	63.3 (58.4 - 68.3)	74.8 (71.2 - 78.4)	69.5 (65.1 - 73.9)	61.1 (59.5 - 62.7)
	80-99	64.3 (59.8 - 68.9)	60.2 (56.7 - 63.8)	57.5 (49.3 - 65.6)	44.4 (35.2 - 53.6)	62.9 (56.5 - 69.3)	62.1 (54.2 - 70.0)	34.5 (32.6 - 36.4)
Distant	All ages	18.4 (16.7 - 20.2)	13.6 (12.5 - 14.8)	16.9 (14.5 - 19.3)	11.6 (9.1 - 14.0)	13.7 (11.2 - 16.2)	17.7 (15.2 - 20.1)	8.4 (7.7 - 9.0)
	15-49	29.2 (23.1 - 35.3)	23.9 (19.2 - 28.7)	24.8 (14.7 - 35.0)	14.4 (4.4 - 24.5)	19.5 (11.2 - 27.9)	24.2 (14.9 - 33.4)	14.8 (11.8 - 17.8)
	50-64	24.8 (21.3 - 28.4)	18.8 (16.4 - 21.2)	25.5 (20.5 - 30.5)	18.0 (12.7 - 23.3)	16.4 (11.3 - 21.4)	24.5 (19.4 - 29.6)	12.9 (11.3 - 14.4)
	65-79	15.8 (13.2 - 18.5)	11.8 (10.0 - 13.6)	12.4 (9.5 - 15.2)	9.4 (6.1 - 12.6)	13.7 (10.0 - 17.5)	15.2 (11.8 - 18.6)	6.3 (5.4 - 7.2)
	80-99	5.9 (3.6 - 8.2)	2.5 (1.3 - 3.7)	7.5 (3.9 - 11.1)	2.3 (0.3 - 4.4)	4.3 (0.2 - 8.4)	6.2 (3.2 - 9.2)	1.3 (0.8 - 1.7)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 6A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for male rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>2</sup>	All ages	89.8 (88.8 - 90.8)	87.3 (86.5 - 88.1)	87.6 (86.1 - 88.9)	86.3 (84.2 - 88.1)	85.9 (84.0 - 87.6)	89.3 (87.7 - 90.6)	85.2 (84.7 - 85.6)
	15-49	96.1 (93.8 - 97.5)	94.0 (92.1 - 95.4)	90.6 (84.5 - 94.4)	90.6 (84.5 - 94.4)	92.2 (86.6 - 95.6)	93.8 (88.7 - 96.7)	90.0 (88.4 - 91.5)
	50-64	93.6 (92.2 - 94.8)	91.7 (90.6 - 92.6)	91.3 (89.2 - 93.1)	91.3 (89.2 - 93.1)	90.6 (87.5 - 92.9)	94.0 (91.7 - 95.6)	90.6 (89.8 - 91.3)
	65-79	88.2 (86.6 - 89.7)	87.5 (86.3 - 88.7)	87.8 (86.0 - 89.4)	87.7 (84.7 - 90.1)	85.1 (82.3 - 87.5)	91.1 (88.9 - 92.8)	84.9 (84.2 - 85.6)
	80-99	82.5 (78.9 - 85.7)	74.5 (71.6 - 77.2)	76.1 (71.1 - 80.4)	69.2 (61.4 - 75.7)	74.5 (67.7 - 80.1)	73.2 (67.5 - 78.0)	71.9 (70.3 - 73.4)
<b>TNM Stage<sup>3</sup></b>								
Stage I	All ages	98.2 (96.6 - 99.7)	95.4 (94.1 - 96.7)	95.8 (93.0 - 98.6)	96.6 (93.1 - 100.0)		98.2 (96.4 - 100.0)	97.6 (97.0 - 98.2)
	15-49	100.0 (98.6 - 100.0)	100.0 (100.0 - 100.0)	99.8 (96.1 - 100.0)	100.0 (100.0 - 100.0)		99.5 (95.9 - 100.0)	98.9 (97.4 - 100.0)
	50-64	100.0 (99.0 - 100.0)	98.1 (96.9 - 99.4)	99.1 (96.6 - 100.0)	99.0 (95.9 - 100.0)		99.7 (98.1 - 100.0)	99.2 (98.5 - 99.9)
	65-79	95.8 (92.9 - 98.7)	95.9 (94.0 - 97.7)	95.7 (92.6 - 98.8)	96.0 (91.4 - 100.0)		99.5 (97.4 - 100.0)	97.7 (96.7 - 98.7)
	80-99	99.7 (93.2 - 100.0)	85.4 (80.0 - 90.9)	85.4 (73.5 - 97.4)	92.7 (78.7 - 100.0)		90.2 (79.9 - 100.0)	93.5 (90.7 - 96.3)
Stage II	All ages	99.6 (96.6 - 100.0)	94.0 (92.5 - 95.5)	94.2 (92.0 - 96.3)	90.1 (84.6 - 95.6)		97.2 (94.9 - 99.4)	93.0 (92.0 - 94.0)
	15-49	97.8 (94.6 - 100.0)	98.4 (96.0 - 100.0)	98.7 (93.3 - 100.0)	92.8 (78.7 - 100.0)		99.9 (97.6 - 100.0)	99.0 (97.2 - 100.0)
	50-64	97.3 (93.0 - 100.0)	96.2 (94.4 - 98.1)	95.6 (92.6 - 98.5)	95.2 (89.8 - 100.0)		100.0 (99.7 - 100.0)	97.1 (96.0 - 98.3)
	65-79	97.3 (93.0 - 100.0)	94.6 (92.4 - 96.7)	94.6 (91.8 - 97.3)	92.3 (87.4 - 97.1)		98.0 (95.2 - 100.0)	91.9 (90.4 - 93.3)
	80-99	97.6 (89.5 - 100.0)	85.2 (79.7 - 90.8)	85.8 (77.2 - 94.4)	79.2 (63.8 - 94.6)		87.6 (77.8 - 97.4)	83.8 (80.2 - 87.4)
Stage III	All ages	94.8 (91.9 - 97.6)	92.4 (91.1 - 93.6)	94.0 (92.0 - 96.1)	92.8 (90.0 - 95.5)		95.0 (92.1 - 97.8)	91.4 (90.6 - 92.2)
	15-49	99.1 (95.5 - 100.0)	98.3 (96.8 - 99.8)	96.2 (90.9 - 100.0)	100.0 (100.0 - 100.0)		99.8 (96.6 - 100.0)	95.1 (93.3 - 96.8)
	50-64	98.4 (95.7 - 100.0)	95.9 (94.7 - 97.2)	97.2 (94.8 - 99.7)	97.3 (95.0 - 99.7)		98.3 (95.8 - 100.0)	95.9 (94.9 - 96.9)
	65-79	94.1 (90.0 - 98.1)	93.0 (91.2 - 94.7)	92.8 (90.0 - 95.6)	94.4 (91.0 - 97.8)		97.1 (93.0 - 100.0)	91.6 (90.4 - 92.8)
	80-99	87.9 (77.6 - 98.3)	79.9 (74.4 - 85.3)	89.5 (81.7 - 97.3)	73.5 (61.3 - 85.8)		80.3 (67.9 - 92.7)	79.0 (75.9 - 82.1)
Stage IV	All ages	64.2 (58.7 - 69.7)	57.6 (55.0 - 60.1)	62.6 (57.9 - 67.3)	57.8 (51.7 - 63.9)		65.9 (61.5 - 70.2)	54.3 (52.8 - 55.7)
	15-49	83.5 (72.5 - 94.5)	75.2 (68.6 - 81.9)	66.3 (49.6 - 82.9)	80.6 (63.2 - 98.0)		83.7 (74.0 - 93.4)	67.7 (62.7 - 72.8)
	50-64	75.4 (66.8 - 84.0)	69.1 (65.3 - 72.9)	72.0 (65.6 - 78.4)	65.0 (55.8 - 74.2)		79.4 (73.3 - 85.6)	64.7 (61.9 - 67.5)
	65-79	58.3 (49.3 - 67.3)	53.5 (49.4 - 57.7)	64.1 (58.8 - 69.4)	57.1 (47.8 - 66.4)		67.4 (60.9 - 73.9)	51.2 (49.0 - 53.4)
	80-99	42.6 (29.0 - 56.2)	36.1 (29.8 - 42.5)	37.5 (26.8 - 48.2)	30.0 (13.9 - 46.0)		30.6 (19.6 - 41.5)	33.5 (30.1 - 37.0)
<b>Mapped SEER stage<sup>4</sup></b>								
Localised	All ages	96.8 (95.7 - 97.8)	95.7 (94.7 - 96.7)	95.6 (94.1 - 97.1)	95.1 (92.4 - 97.7)	98.8 (96.8 - 100.0)	97.8 (96.4 - 99.3)	95.9 (95.3 - 96.4)
	15-49	99.7 (98.5 - 100.0)	99.8 (98.9 - 100.0)	99.7 (97.0 - 100.0)	96.1 (88.3 - 100.0)	99.3 (95.1 - 100.0)	99.7 (97.6 - 100.0)	99.2 (98.2 - 100.0)
	50-64	98.8 (97.7 - 99.9)	98.1 (97.1 - 99.1)	97.5 (95.4 - 99.7)	97.9 (95.2 - 100.0)	99.7 (98.2 - 100.0)	100.0 (99.2 - 100.0)	98.4 (97.8 - 99.0)
	65-79	95.3 (93.5 - 97.0)	96.1 (94.7 - 97.5)	95.8 (93.8 - 97.8)	95.6 (92.4 - 98.7)	99.3 (96.6 - 100.0)	100.0 (99.2 - 100.0)	95.7 (94.9 - 96.5)
	80-99	94.8 (90.7 - 98.9)	87.2 (82.8 - 91.7)	86.7 (79.7 - 93.7)	88.9 (78.8 - 99.0)	95.9 (87.6 - 100.0)	99.1 (97.5 - 100.0)	89.1 (86.7 - 91.5)
Regional	All ages	95.6 (94.3 - 96.9)	92.0 (90.9 - 93.1)	93.1 (91.0 - 95.3)	91.8 (89.3 - 94.4)	95.4 (93.3 - 97.4)	95.3 (92.7 - 97.8)	90.5 (89.8 - 91.2)
	15-49	99.8 (98.8 - 100.0)	98.4 (97.0 - 99.7)	95.8 (90.4 - 100.0)	100.0 (100.0 - 100.0)	98.0 (94.2 - 100.0)	98.7 (92.6 - 100.0)	94.9 (93.0 - 96.7)
	50-64	98.2 (96.8 - 99.6)	95.1 (93.9 - 96.3)	96.5 (94.1 - 98.8)	97.0 (94.6 - 99.5)	97.5 (95.0 - 100.0)	98.6 (96.4 - 100.0)	95.4 (94.6 - 96.3)
	65-79	95.0 (92.8 - 97.1)	92.4 (90.8 - 94.0)	92.4 (89.6 - 95.2)	92.5 (89.0 - 96.1)	95.4 (92.4 - 98.3)	97.0 (93.9 - 100.0)	90.5 (89.4 - 91.5)
	80-99	89.2 (83.8 - 94.6)	81.0 (76.6 - 85.4)	86.1 (78.0 - 94.2)	73.6 (62.1 - 85.1)	89.1 (80.2 - 98.1)	82.1 (71.3 - 92.9)	77.5 (74.7 - 80.2)
Distant	All ages	60.0 (56.4 - 63.6)	57.6 (55.1 - 60.2)	62.6 (57.8 - 67.5)	57.2 (51.3 - 63.0)	51.9 (46.5 - 57.3)	65.5 (61.1 - 69.8)	53.8 (52.3 - 55.2)
	15-49	82.8 (75.1 - 90.4)	75.2 (68.7 - 81.7)	66.9 (50.5 - 83.2)	80.4 (62.8 - 97.9)	76.9 (63.6 - 90.2)	83.8 (73.5 - 94.2)	67.4 (62.2 - 72.5)
	50-64	71.6 (66.1 - 77.1)	70.1 (66.3 - 73.8)	72.0 (65.6 - 78.5)	65.2 (56.2 - 74.2)	65.5 (56.1 - 74.9)	79.3 (73.2 - 85.3)	64.4 (61.8 - 67.1)
	65-79	53.9 (48.2 - 59.6)	54.2 (50.1 - 58.3)	63.8 (58.6 - 69.1)	57.1 (47.8 - 66.3)	42.5 (33.7 - 51.3)	67.5 (61.5 - 73.6)	50.6 (48.3 - 52.9)
	80-99	39.0 (29.9 - 48.1)	33.3 (27.0 - 39.7)	38.9 (28.0 - 49.8)	26.7 (12.6 - 40.7)	32.8 (20.8 - 44.8)	29.5 (18.9 - 40.2)	32.8 (29.6 - 36.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup>Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup>Model2: Age spline allowing separate models for each stage category

**Supplementary Table 6B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for male rectal cancer patients diagnosed during 2010-2014

Stage	Australia <sup>1</sup>		Canada <sup>1</sup>		Denmark		Ireland <sup>1</sup>		New Zealand		Norway		United Kingdom <sup>1</sup>	
	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>2</sup>	All ages	70.1 (68.5 - 71.6)	70.0 (68.8 - 71.2)	68.6 (66.3 - 70.7)	60.8 (58.0 - 63.5)	64.0 (61.1 - 66.8)	68.5 (65.9 - 70.9)	61.6 (60.9 - 62.3)						
	15-49	77.6 (73.6 - 81.0)	77.3 (74.3 - 79.9)	73.1 (65.3 - 79.4)	70.2 (61.8 - 77.1)	70.3 (62.0 - 77.1)	74.5 (66.6 - 80.8)	67.5 (65.1 - 69.8)						
	50-64	73.7 (71.5 - 75.8)	75.1 (73.4 - 76.6)	73.3 (70.1 - 76.3)	64.5 (60.3 - 68.3)	71.0 (66.5 - 75.0)	70.8 (67.0 - 74.2)	68.8 (67.7 - 69.9)						
	65-79	68.6 (66.2 - 70.9)	71.0 (69.2 - 72.8)	67.7 (64.8 - 70.5)	61.4 (57.3 - 65.2)	62.1 (58.0 - 65.9)	71.3 (67.8 - 74.6)	63.0 (62.0 - 64.1)						
	80-99	61.4 (55.2 - 67.0)	53.8 (49.2 - 58.1)	55.5 (46.8 - 63.4)	46.1 (35.9 - 55.6)	53.1 (42.3 - 62.7)	53.1 (43.8 - 61.5)	40.0 (37.7 - 42.2)						
<b>TNM Stage<sup>3</sup></b>														
Stage I	All ages	95.7 (92.3 - 99.1)	90.1 (87.4 - 92.7)	92.3 (87.4 - 97.2)	91.0 (84.9 - 97.1)	94.5 (90.0 - 99.0)	91.5 (90.2 - 92.9)							
	15-49	98.0 (93.4 - 100.0)	96.7 (92.9 - 100.0)	91.5 (78.3 - 100.0)	95.8 (85.6 - 100.0)	96.9 (89.8 - 100.0)	94.1 (90.4 - 97.9)							
	50-64	95.3 (91.9 - 98.6)	95.1 (92.6 - 97.6)	96.3 (90.8 - 100.0)	99.3 (93.7 - 100.0)	98.3 (94.4 - 100.0)	93.6 (91.9 - 95.4)							
	65-79	92.5 (87.6 - 97.4)	91.1 (87.7 - 94.4)	92.0 (85.7 - 98.4)	82.7 (73.3 - 92.1)	94.8 (89.3 - 100.0)	93.0 (91.0 - 94.9)							
	80-99	100.0 (86.5 - 100.0)	73.1 (62.7 - 83.5)	79.5 (56.2 - 100.0)	94.7 (67.1 - 100.0)	82.5 (60.5 - 100.0)	82.1 (75.4 - 88.9)							
Stage II	All ages	83.6 (78.9 - 88.4)	78.7 (76.0 - 81.5)	84.6 (80.1 - 89.0)	74.4 (67.9 - 81.0)	86.4 (81.2 - 91.6)	74.5 (72.1 - 77.0)							
	15-49	86.6 (74.7 - 98.5)	85.3 (78.8 - 91.7)	84.2 (70.8 - 97.7)	88.5 (71.8 - 100.0)	96.2 (87.0 - 100.0)	83.8 (77.4 - 90.3)							
	50-64	81.5 (74.7 - 88.3)	85.8 (82.5 - 89.1)	82.5 (77.7 - 87.3)	78.6 (69.6 - 87.7)	88.4 (82.2 - 94.7)	82.4 (79.2 - 85.6)							
	65-79	84.3 (76.8 - 91.8)	79.7 (75.6 - 83.8)	84.7 (79.5 - 89.8)	75.8 (67.8 - 83.9)	89.5 (82.9 - 96.0)	75.2 (72.6 - 77.8)							
	80-99	82.0 (63.0 - 100.0)	57.2 (46.2 - 68.3)	73.6 (54.2 - 93.0)	54.4 (32.5 - 76.3)	69.0 (50.3 - 87.7)	50.2 (43.7 - 56.8)							
Stage III	All ages	65.1 (60.1 - 70.0)	70.0 (67.3 - 72.7)	75.9 (72.1 - 79.6)	67.0 (62.5 - 71.5)	76.6 (71.4 - 81.8)	64.0 (62.5 - 65.6)							
	15-49	74.8 (63.9 - 85.6)	83.0 (78.2 - 87.8)	80.1 (70.2 - 89.9)	83.5 (74.3 - 92.8)	89.4 (77.2 - 100.0)	74.0 (69.9 - 78.2)							
	50-64	74.9 (68.2 - 81.7)	78.4 (75.6 - 81.1)	82.5 (77.7 - 87.3)	75.6 (70.0 - 81.2)	79.3 (72.1 - 86.5)	73.9 (71.7 - 76.1)							
	65-79	61.6 (54.3 - 68.8)	71.3 (67.7 - 74.9)	75.0 (70.1 - 80.0)	66.2 (59.7 - 72.7)	78.7 (70.7 - 86.8)	64.7 (62.6 - 66.7)							
	80-99	51.5 (34.6 - 68.5)	43.9 (34.1 - 53.7)	60.2 (42.3 - 78.2)	41.0 (25.0 - 56.9)	57.3 (38.8 - 75.9)	35.7 (29.4 - 41.9)							
Stage IV	All ages	17.3 (13.2 - 21.4)	12.1 (9.9 - 14.3)	21.8 (18.0 - 25.7)	11.3 (8.1 - 14.5)	17.5 (13.9 - 21.2)	8.7 (7.6 - 9.9)							
	15-49	36.4 (20.8 - 51.9)	26.8 (18.7 - 34.9)	36.0 (19.5 - 52.6)	17.4 (4.0 - 30.9)	37.4 (22.7 - 52.2)	16.4 (9.9 - 22.9)							
	50-64	20.5 (13.2 - 27.7)	17.2 (13.7 - 20.8)	27.2 (21.0 - 33.3)	13.5 (8.0 - 19.1)	24.7 (18.3 - 31.0)	13.1 (10.8 - 15.4)							
	65-79	16.4 (9.6 - 23.1)	9.3 (6.2 - 12.4)	16.2 (11.8 - 20.6)	9.7 (4.7 - 14.7)	15.4 (9.3 - 21.5)	6.9 (5.6 - 8.3)							
	80-99	3.0 (0.0 - 7.5)	2.5 (0.0 - 5.7)	2.9 (0.0 - 7.7)	4.3 (0.0 - 10.8)	2.3 (0.0 - 6.1)	1.2 (0.1 - 2.2)							
<b>Mapped SEER stage<sup>4</sup></b>														
Localised	All ages	89.7 (87.7 - 91.8)	88.0 (85.7 - 90.3)	90.3 (86.9 - 93.6)	83.6 (79.3 - 87.9)	89.0 (84.3 - 93.7)	91.0 (87.7 - 94.4)	84.5 (83.3 - 85.6)						
	15-49	95.5 (91.5 - 99.4)	94.6 (90.8 - 98.4)	92.3 (84.0 - 100.0)	91.8 (81.8 - 100.0)	98.2 (91.3 - 100.0)	97.1 (92.1 - 100.0)	91.5 (87.9 - 95.1)						
	50-64	91.4 (89.0 - 93.8)	93.6 (91.5 - 95.8)	94.6 (90.9 - 98.3)	90.3 (84.8 - 95.8)	91.1 (85.4 - 96.8)	94.3 (90.6 - 98.0)	89.1 (87.6 - 90.6)						
	65-79	87.2 (84.2 - 90.3)	89.4 (86.2 - 92.5)	89.9 (85.8 - 94.1)	80.1 (74.1 - 86.1)	88.3 (81.4 - 95.1)	92.9 (88.6 - 97.2)	85.8 (84.0 - 87.6)						
	80-99	89.4 (79.7 - 99.1)	69.2 (60.4 - 78.1)	77.9 (63.4 - 92.4)	74.0 (55.5 - 92.5)	82.5 (62.8 - 100.0)	75.8 (61.2 - 90.4)	66.6 (61.7 - 71.5)						
Regional	All ages	72.7 (70.1 - 75.3)	70.9 (68.8 - 72.9)	74.4 (70.6 - 78.2)	66.5 (62.1 - 70.8)	74.3 (69.8 - 78.9)	76.4 (71.2 - 81.6)	62.3 (60.8 - 63.9)						
	15-49	85.0 (79.9 - 90.0)	83.0 (78.7 - 87.3)	77.9 (68.3 - 87.6)	82.3 (72.8 - 91.9)	82.0 (71.7 - 92.3)	87.6 (73.7 - 100.0)	71.8 (67.6 - 76.1)						
	50-64	78.4 (75.1 - 81.8)	79.0 (76.6 - 81.4)	81.4 (76.8 - 86.1)	75.3 (69.8 - 80.9)	84.0 (77.9 - 90.0)	79.9 (72.6 - 87.2)	72.6 (70.5 - 74.6)						
	65-79	70.5 (66.4 - 74.5)	71.8 (68.8 - 74.7)	73.9 (69.0 - 78.8)	65.3 (59.0 - 71.6)	69.3 (62.5 - 76.0)	78.2 (71.0 - 85.4)	63.0 (60.9 - 65.0)						
	80-99	57.5 (47.5 - 67.4)	46.5 (38.8 - 54.2)	58.9 (42.5 - 75.3)	41.7 (26.2 - 57.2)	64.2 (43.2 - 85.3)	56.7 (37.9 - 75.5)	33.3 (28.0 - 38.7)						
Distant	All ages	15.6 (13.1 - 18.1)	12.8 (10.5 - 15.1)	22.4 (18.2 - 26.5)	11.2 (7.9 - 14.6)	8.0 (4.0 - 11.9)	17.6 (13.9 - 21.2)	8.3 (7.3 - 9.4)						
	15-49	27.8 (17.8 - 37.8)	27.2 (19.5 - 34.8)	36.8 (20.4 - 53.3)	17.9 (4.2 - 31.6)	10.5 (0.0 - 24.4)	36.6 (21.9 - 51.4)	16.2 (10.5 - 21.9)						
	50-64	20.8 (16.3 - 25.4)	17.5 (14.1 - 21.0)	27.5 (21.1 - 33.9)	13.1 (7.6 - 18.5)	14.9 (6.0 - 23.7)	24.0 (17.1 - 30.8)	12.8 (10.6 - 15.1)						
	65-79	13.5 (9.8 - 17.1)	10.1 (6.9 - 13.2)	16.5 (12.0 - 20.9)	9.9 (5.0 - 14.8)	5.4 (1.1 - 9.7)	16.2 (10.7 - 21.7)	6.6 (5.2 - 8.0)						
	80-99	3.2 (0.0 - 6.6)	3.0 (0.0 - 6.9)	3.5 (0.0 - 9.2)	4.2 (0.0 - 10.8)	3.4 (0.0 - 11.9)	2.8 (0.0 - 7.0)	0.8 (0.0 - 1.6)						

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup>Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup>Model2: Age spline allowing separate models for each stage category

**Supplementary Table 7A.** Age-standardised and age-specific one-year net survival (%) by (imputed) stage at diagnosis and country for female rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>†</sup>	All ages	90.4 (89.1 - 91.6)	87.3 (86.3 - 88.3)	87.4 (85.8 - 88.8)	85.9 (83.0 - 88.4)	86.3 (83.8 - 88.4)	88.9 (87.1 - 90.5)	84.5 (83.8 - 85.1)
	15-49	95.7 (93.1 - 97.3)	96.1 (94.2 - 97.4)	95.1 (89.3 - 97.8)	95.1 (89.3 - 97.8)	87.6 (79.6 - 92.7)	91.1 (84.4 - 95.0)	91.4 (89.5 - 92.9)
	50-64	94.8 (93.0 - 96.2)	92.4 (91.0 - 93.5)	93.4 (90.9 - 95.3)	93.4 (90.9 - 95.3)	92.5 (88.6 - 95.0)	95.4 (92.7 - 97.1)	91.5 (90.5 - 92.4)
	65-79	91.7 (89.6 - 93.4)	87.6 (85.8 - 89.1)	87.5 (85.0 - 89.6)	86.0 (81.0 - 89.8)	86.5 (82.4 - 89.7)	89.2 (86.3 - 91.5)	84.7 (83.7 - 85.7)
	80-99	76.9 (72.5 - 80.7)	73.8 (70.6 - 76.7)	70.0 (64.8 - 74.7)	68.7 (59.3 - 76.4)	73.7 (66.4 - 79.7)	76.9 (71.3 - 81.6)	67.1 (65.4 - 68.8)
<b>TNM Stage<sup>‡</sup></b>								
Stage I	All ages	98.4 (96.2 - 100.0)	96.8 (95.4 - 98.1)	99.3 (97.4 - 100.0)	98.0 (94.8 - 100.0)		99.8 (98.1 - 100.0)	98.2 (97.5 - 98.9)
	15-49	100.0 (100.0 - 100.0)	100.0 (99.4 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)		99.8 (97.5 - 100.0)	99.5 (98.3 - 100.0)
	50-64	99.1 (97.0 - 100.0)	99.6 (98.7 - 100.0)	99.6 (97.9 - 100.0)	100.0 (100.0 - 100.0)		100.0 (98.9 - 100.0)	99.1 (98.4 - 99.9)
	65-79	99.5 (97.2 - 100.0)	97.1 (95.1 - 99.1)	99.5 (97.3 - 100.0)	98.1 (93.2 - 100.0)		99.8 (97.6 - 100.0)	99.5 (98.6 - 100.0)
	80-99	94.0 (84.7 - 100.0)	89.5 (84.0 - 95.0)	97.9 (88.7 - 100.0)	92.2 (78.0 - 100.0)		99.4 (91.4 - 100.0)	92.7 (89.5 - 95.9)
Stage II	All ages	99.5 (95.8 - 100.0)	91.6 (89.5 - 93.7)	93.2 (90.7 - 95.7)	93.2 (88.5 - 97.9)		96.5 (93.7 - 99.4)	93.1 (91.9 - 94.3)
	15-49	100.0 (98.7 - 100.0)	100.0 (98.7 - 100.0)	96.0 (88.1 - 100.0)	100.0 (100.0 - 100.0)		99.5 (94.8 - 100.0)	98.0 (95.6 - 100.0)
	50-64	98.6 (95.3 - 100.0)	95.3 (92.7 - 97.8)	96.9 (93.4 - 100.0)	92.4 (84.9 - 100.0)		98.7 (95.7 - 100.0)	97.8 (96.4 - 99.2)
	65-79	98.6 (95.3 - 100.0)	91.4 (88.1 - 94.7)	93.9 (90.1 - 97.7)	91.1 (83.0 - 99.3)		96.4 (92.4 - 100.0)	93.4 (91.5 - 95.4)
	80-99	85.6 (70.1 - 100.0)	81.3 (73.9 - 88.6)	80.2 (71.2 - 89.2)	92.6 (78.2 - 100.0)		91.6 (80.9 - 100.0)	80.5 (76.9 - 84.0)
Stage III	All ages	94.3 (91.1 - 97.4)	93.0 (91.5 - 94.6)	92.5 (90.0 - 95.1)	87.0 (82.5 - 91.5)		96.6 (93.2 - 100.0)	90.6 (89.6 - 91.6)
	15-49	100.0 (100.0 - 100.0)	98.6 (96.9 - 100.0)	99.5 (96.6 - 100.0)	100.0 (100.0 - 100.0)		99.5 (95.9 - 100.0)	96.4 (94.6 - 98.2)
	50-64	95.4 (91.0 - 99.8)	97.4 (95.9 - 98.9)	98.5 (96.3 - 100.0)	94.1 (89.6 - 98.5)		99.7 (97.3 - 100.0)	96.8 (95.8 - 97.9)
	65-79	94.2 (88.4 - 100.0)	93.0 (90.5 - 95.5)	94.0 (90.6 - 97.4)	89.7 (83.3 - 96.1)		97.4 (93.6 - 100.0)	89.8 (88.2 - 91.5)
	80-99	85.5 (72.7 - 98.2)	83.4 (77.9 - 88.9)	73.1 (62.9 - 83.3)	58.0 (41.5 - 74.5)		87.7 (75.6 - 99.7)	77.0 (73.7 - 80.4)
Stage IV	All ages	69.5 (63.0 - 76.1)	54.2 (50.6 - 57.8)	63.0 (58.3 - 67.8)	59.6 (50.9 - 68.2)		61.5 (56.2 - 66.9)	50.6 (48.6 - 52.7)
	15-49	87.5 (77.5 - 97.4)	81.6 (74.3 - 88.9)	80.5 (64.2 - 96.7)	88.6 (73.6 - 100.0)		69.5 (53.7 - 85.4)	67.6 (61.4 - 73.7)
	50-64	79.5 (69.2 - 89.8)	64.2 (58.3 - 70.0)	74.7 (66.3 - 83.2)	74.9 (62.1 - 87.7)		81.8 (73.7 - 89.8)	63.7 (59.8 - 67.6)
	65-79	71.7 (60.9 - 82.6)	53.0 (47.0 - 58.9)	59.9 (52.7 - 67.1)	53.8 (39.1 - 68.6)		55.6 (46.0 - 65.3)	47.1 (43.8 - 50.3)
	80-99	38.4 (21.7 - 55.2)	26.9 (19.4 - 34.5)	36.2 (25.7 - 46.8)	30.4 (12.7 - 48.2)		35.8 (25.0 - 46.5)	26.3 (23.3 - 29.3)
<b>Mapped SEER stage<sup>‡</sup></b>								
Localised	All ages	96.6 (95.2 - 98.0)	96.2 (95.1 - 97.4)	98.3 (96.9 - 99.8)	97.3 (94.8 - 99.8)	98.9 (96.7 - 100.0)	98.1 (96.3 - 99.9)	96.4 (95.7 - 97.0)
	15-49	100.0 (99.4 - 100.0)	100.0 (99.6 - 100.0)	97.7 (93.1 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.9 (98.4 - 100.0)	98.8 (97.6 - 100.0)
	50-64	98.3 (96.7 - 99.9)	99.1 (98.1 - 100.0)	99.5 (98.2 - 100.0)	96.7 (92.6 - 100.0)	100.0 (100.0 - 100.0)	99.5 (97.9 - 100.0)	98.8 (98.1 - 99.5)
	65-79	98.7 (97.1 - 100.0)	95.6 (93.7 - 97.5)	98.8 (96.9 - 100.0)	98.4 (95.0 - 100.0)	100.0 (98.3 - 100.0)	99.5 (97.9 - 100.0)	97.4 (96.4 - 98.4)
	80-99	87.4 (81.3 - 93.6)	90.3 (85.9 - 94.7)	94.6 (88.1 - 100.0)	93.5 (83.2 - 100.0)	91.5 (81.1 - 100.0)	98.3 (95.8 - 100.0)	87.9 (85.5 - 90.3)
Regional	All ages	94.2 (92.4 - 95.9)	92.3 (90.9 - 93.7)	90.7 (88.3 - 93.2)	87.0 (82.9 - 91.0)	95.1 (92.4 - 97.8)	96.2 (93.7 - 98.8)	89.6 (88.5 - 90.6)
	15-49	98.8 (97.1 - 100.0)	98.7 (97.1 - 100.0)	99.9 (98.2 - 100.0)	100.0 (100.0 - 100.0)	97.0 (91.1 - 100.0)	99.7 (96.9 - 100.0)	96.0 (94.1 - 97.9)
	50-64	96.9 (94.9 - 98.9)	97.2 (95.8 - 98.5)	97.5 (95.1 - 99.8)	94.1 (89.8 - 98.3)	98.5 (95.2 - 100.0)	99.7 (97.8 - 100.0)	96.5 (95.4 - 97.6)
	65-79	93.0 (90.0 - 96.0)	93.1 (90.9 - 95.3)	92.1 (88.7 - 95.5)	87.5 (81.0 - 93.9)	96.4 (92.5 - 100.0)	96.9 (92.6 - 100.0)	89.0 (87.3 - 90.7)
	80-99	88.6 (81.3 - 95.9)	79.9 (74.9 - 84.9)	68.4 (59.2 - 77.7)	62.2 (47.2 - 77.2)	85.0 (74.0 - 96.0)	86.9 (75.8 - 97.9)	73.9 (70.6 - 77.2)
Distant	All ages	66.8 (62.4 - 71.3)	56.4 (53.1 - 59.6)	62.8 (58.1 - 67.5)	59.3 (50.5 - 68.1)	56.8 (50.0 - 63.7)	61.9 (56.8 - 67.1)	50.0 (47.8 - 52.1)
	15-49	81.8 (73.4 - 90.3)	83.1 (76.3 - 89.8)	79.8 (63.3 - 96.4)	88.9 (74.2 - 100.0)	75.7 (63.2 - 88.2)	69.4 (53.7 - 85.0)	67.7 (61.2 - 74.2)
	50-64	81.4 (74.7 - 88.0)	66.3 (61.1 - 71.5)	74.1 (65.7 - 82.4)	75.4 (62.9 - 88.0)	75.9 (66.5 - 85.3)	82.2 (74.3 - 90.0)	63.0 (59.1 - 67.0)
	65-79	67.0 (59.0 - 75.0)	55.4 (49.7 - 61.0)	59.9 (53.0 - 66.8)	52.5 (37.4 - 67.6)	46.7 (34.6 - 58.9)	56.3 (47.3 - 65.4)	45.8 (42.3 - 49.4)
	80-99	34.3 (24.8 - 43.8)	28.9 (22.2 - 35.6)	36.7 (27.0 - 46.3)	30.6 (12.2 - 49.0)	36.1 (22.5 - 49.8)	35.7 (25.3 - 46.2)	26.3 (23.2 - 29.3)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>1</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>†</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 7B.** Age-standardised and age-specific five-year net survival (%) by (imputed) stage at diagnosis and country for female rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>2</sup>	All ages	72.3 (70.3 - 74.2)	72.5 (71.0 - 74.0)	70.2 (67.6 - 72.7)	63.1 (59.2 - 66.8)	67.6 (63.8 - 71.0)	69.6 (66.7 - 72.2)	63.0 (62.1 - 63.9)
	15-49	78.2 (73.8 - 81.9)	79.4 (76.0 - 82.4)	73.2 (64.6 - 80.0)	77.1 (68.0 - 83.9)	73.3 (63.9 - 80.6)	77.1 (68.5 - 83.6)	70.6 (67.9 - 73.1)
	50-64	78.7 (75.8 - 81.3)	79.2 (77.2 - 81.1)	77.3 (73.3 - 80.7)	69.2 (63.4 - 74.2)	71.0 (65.3 - 75.9)	76.4 (72.0 - 80.3)	72.5 (71.0 - 74.0)
	65-79	74.4 (71.3 - 77.3)	73.2 (70.7 - 75.5)	69.3 (65.6 - 72.7)	67.2 (60.9 - 72.7)	71.6 (66.0 - 76.4)	72.7 (68.4 - 76.5)	64.3 (62.9 - 65.7)
	80-99	54.1 (47.8 - 60.0)	56.7 (52.1 - 61.1)	57.5 (48.8 - 65.2)	36.3 (26.7 - 45.8)	50.6 (38.9 - 61.1)	49.1 (41.1 - 56.6)	38.4 (36.2 - 40.5)
<b>TNM Stage<sup>2</sup></b>								
Stage I	All ages	94.2 (89.1 - 99.3)	92.6 (89.9 - 95.3)	97.0 (91.1 - 100.0)	86.8 (79.4 - 94.3)		96.2 (91.3 - 100.0)	92.9 (91.1 - 94.7)
	15-49	100.0 (96.7 - 100.0)	96.1 (92.3 - 99.8)	100.0 (100.0 - 100.0)	96.0 (87.2 - 100.0)		99.3 (93.7 - 100.0)	93.9 (90.0 - 97.9)
	50-64	93.3 (88.4 - 98.2)	96.8 (94.5 - 99.1)	98.2 (93.7 - 100.0)	96.0 (89.0 - 100.0)		96.7 (91.9 - 100.0)	94.4 (92.4 - 96.4)
	65-79	98.6 (93.5 - 100.0)	92.7 (88.6 - 96.8)	95.7 (89.5 - 100.0)	91.0 (81.3 - 100.0)		95.8 (90.3 - 100.0)	95.0 (92.7 - 97.3)
	80-99	83.2 (62.1 - 100.0)	83.3 (72.6 - 94.0)	95.3 (70.5 - 100.0)	59.9 (33.8 - 86.0)		93.0 (72.6 - 100.0)	84.1 (76.8 - 91.3)
Stage II	All ages	91.1 (85.5 - 96.7)	76.7 (73.2 - 80.3)	81.4 (76.0 - 86.9)	72.7 (64.4 - 81.0)		81.4 (75.5 - 87.2)	76.5 (74.1 - 78.8)
	15-49	98.9 (93.8 - 100.0)	84.9 (76.7 - 93.1)	85.0 (70.7 - 99.3)	94.5 (83.1 - 100.0)		93.9 (80.3 - 100.0)	84.7 (77.9 - 91.4)
	50-64	95.5 (90.1 - 100.0)	85.9 (81.3 - 90.5)	87.1 (82.0 - 92.2)	81.2 (69.8 - 92.6)		86.6 (79.3 - 94.0)	84.8 (81.9 - 87.7)
	65-79	90.7 (82.6 - 98.8)	79.7 (74.2 - 85.2)	80.9 (73.6 - 88.3)	69.9 (56.9 - 82.9)		87.4 (80.0 - 94.9)	79.3 (75.8 - 82.8)
	80-99	78.3 (55.9 - 100.0)	55.3 (44.6 - 66.0)	76.1 (59.6 - 92.5)	49.9 (26.2 - 73.7)		59.9 (41.6 - 78.1)	49.1 (43.4 - 54.8)
Stage III	All ages	74.2 (68.2 - 80.3)	73.1 (70.0 - 76.1)	76.1 (71.8 - 80.4)	67.9 (61.6 - 74.1)		77.5 (70.9 - 84.1)	63.9 (61.9 - 65.9)
	15-49	83.5 (72.4 - 94.5)	84.2 (78.9 - 89.6)	78.1 (67.2 - 89.1)	83.6 (73.7 - 93.5)		89.0 (77.2 - 100.0)	72.2 (72.8 - 81.6)
	50-64	80.4 (72.5 - 88.2)	83.6 (80.0 - 87.1)	87.1 (82.0 - 92.2)	74.2 (66.4 - 82.0)		84.0 (76.1 - 91.8)	76.6 (73.9 - 79.3)
	65-79	76.2 (66.3 - 86.2)	72.6 (67.9 - 77.3)	76.2 (70.3 - 82.2)	74.8 (65.2 - 84.5)		79.4 (69.7 - 89.1)	62.8 (59.8 - 65.9)
	80-99	53.8 (35.8 - 71.8)	52.1 (42.2 - 62.0)	53.8 (36.9 - 70.7)	28.7 (12.4 - 45.0)		52.3 (32.6 - 71.9)	34.1 (29.4 - 38.8)
Stage IV	All ages	21.9 (15.7 - 28.2)	14.7 (12.0 - 17.5)	24.8 (19.8 - 29.9)	11.2 (5.1 - 17.2)		21.7 (17.1 - 26.3)	9.2 (7.4 - 11.1)
	15-49	41.1 (24.4 - 57.7)	28.3 (17.9 - 38.6)	29.9 (12.0 - 47.7)	15.3 (0.0 - 37.4)		35.6 (18.0 - 53.2)	18.0 (11.8 - 24.3)
	50-64	28.7 (16.9 - 40.4)	19.7 (14.2 - 25.3)	30.5 (21.4 - 39.6)	13.6 (2.8 - 24.4)		36.2 (26.7 - 45.8)	14.5 (10.7 - 18.4)
	65-79	21.8 (10.8 - 32.8)	15.0 (10.2 - 19.7)	24.0 (17.2 - 30.8)	11.1 (2.1 - 20.1)		17.0 (10.3 - 23.6)	6.7 (4.6 - 8.9)
	80-99	1.4 (0.0 - 6.4)	2.0 (0.0 - 4.5)	12.5 (2.3 - 22.8)	3.0 (0.0 - 10.3)		1.8 (0.0 - 5.0)	1.4 (0.4 - 2.5)
<b>Mapped SEER stage<sup>2</sup></b>								
Localised	All ages	90.3 (87.6 - 92.9)	91.0 (88.7 - 93.4)	94.5 (90.6 - 98.5)	83.8 (78.2 - 89.5)	97.6 (92.6 - 100.0)	91.3 (87.6 - 95.1)	86.4 (85.2 - 87.6)
	15-49	99.2 (96.8 - 100.0)	95.8 (92.3 - 99.2)	98.2 (93.1 - 100.0)	95.1 (87.6 - 100.0)	100.0 (96.3 - 100.0)	97.3 (91.9 - 100.0)	90.9 (87.9 - 93.9)
	50-64	92.7 (89.5 - 95.9)	95.7 (93.5 - 97.8)	95.1 (91.3 - 99.0)	90.7 (84.0 - 97.4)	96.6 (91.5 - 100.0)	94.4 (90.5 - 98.4)	91.1 (89.3 - 92.9)
	65-79	94.0 (90.6 - 97.4)	90.8 (87.5 - 94.2)	92.2 (87.3 - 97.0)	86.8 (78.5 - 95.1)	98.4 (92.3 - 100.0)	94.5 (89.5 - 99.6)	89.0 (87.0 - 91.0)
	80-99	73.7 (63.0 - 84.4)	81.1 (72.2 - 90.0)	93.9 (78.2 - 100.0)	61.8 (44.2 - 79.4)	96.0 (71.8 - 100.0)	76.4 (63.1 - 89.7)	67.9 (63.6 - 72.2)
Regional	All ages	74.1 (70.9 - 77.2)	72.9 (70.4 - 75.4)	72.5 (68.6 - 76.5)	66.0 (60.2 - 71.7)	73.4 (67.8 - 79.0)	74.2 (68.4 - 80.0)	62.6 (60.9 - 64.3)
	15-49	82.1 (76.1 - 88.1)	82.6 (77.5 - 87.8)	75.3 (64.6 - 86.1)	84.8 (75.3 - 94.3)	87.9 (75.8 - 100.0)	88.3 (76.5 - 100.0)	75.7 (71.4 - 79.9)
	50-64	81.6 (77.4 - 85.7)	83.6 (80.2 - 86.9)	84.1 (79.1 - 89.1)	73.8 (66.4 - 81.2)	76.2 (67.7 - 84.7)	81.7 (74.1 - 89.3)	76.1 (73.6 - 78.5)
	65-79	73.0 (68.0 - 78.0)	74.6 (70.6 - 78.6)	72.9 (67.2 - 78.5)	70.4 (60.8 - 79.9)	77.2 (68.9 - 85.4)	75.8 (66.3 - 85.3)	61.2 (58.2 - 64.2)
	80-99	58.4 (47.3 - 69.5)	49.0 (41.5 - 56.5)	48.2 (33.2 - 63.3)	26.2 (11.8 - 40.5)	48.2 (30.1 - 66.3)	47.6 (28.9 - 66.2)	32.5 (28.4 - 36.5)
Distant	All ages	22.2 (18.1 - 26.4)	17.3 (14.5 - 20.1)	25.2 (20.2 - 30.2)	10.9 (5.1 - 16.6)	14.5 (7.9 - 21.1)	21.4 (16.7 - 26.1)	9.1 (7.6 - 10.6)
	15-49	34.6 (24.1 - 45.1)	31.0 (21.9 - 40.1)	29.9 (12.2 - 47.6)	15.6 (0.0 - 37.4)	38.1 (16.7 - 59.6)	36.5 (19.4 - 53.7)	19.0 (13.0 - 25.1)
	50-64	33.6 (25.1 - 42.1)	23.8 (18.3 - 29.3)	30.3 (21.3 - 39.4)	14.0 (3.5 - 24.5)	19.8 (5.6 - 34.0)	35.6 (26.4 - 44.9)	14.0 (10.0 - 18.1)
	65-79	17.9 (11.4 - 24.4)	17.6 (12.6 - 22.6)	24.9 (17.9 - 31.9)	10.4 (2.2 - 18.6)	12.2 (3.0 - 21.3)	17.1 (10.3 - 23.9)	6.6 (4.7 - 8.4)
	80-99	4.7 (0.0 - 9.7)	2.7 (0.3 - 5.1)	13.1 (2.8 - 23.5)	2.8 (0.0 - 9.6)	2.1 (0.0 - 8.5)	1.7 (0.0 - 4.6)	1.3 (0.3 - 2.2)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup> Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)<sup>1</sup> Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales<sup>2</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>2</sup> Model2: Age spline allowing separate models for each stage category



**Supplementary Table 8A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation, presenting results of those with missing stage information) and country for colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>a</sup>	Canada <sup>a</sup>	Denmark	Ireland <sup>a</sup>	New Zealand	Norway	United Kingdom <sup>a</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>b</sup>	All ages	87.5 (87.0 - 88.0)	84.2 (83.8 - 84.6)	82.7 (81.8 - 83.5)	80.0 (78.9 - 81.0)	80.8 (79.9 - 81.8)	82.6 (81.8 - 83.4)	77.1 (76.8 - 77.4)
	15-49	92.0 (90.6 - 93.2)	91.3 (90.2 - 92.3)	89.7 (86.5 - 92.2)	90.9 (87.8 - 93.3)	84.8 (81.3 - 87.8)	89.3 (86.4 - 91.6)	86.7 (85.8 - 87.5)
	50-64	91.4 (90.5 - 92.2)	88.9 (88.2 - 89.5)	87.1 (85.5 - 88.5)	86.3 (84.3 - 88.0)	84.2 (82.2 - 86.0)	87.3 (85.7 - 88.7)	83.7 (83.2 - 84.3)
	65-79	87.8 (87.1 - 88.5)	84.4 (83.8 - 85.0)	82.5 (81.4 - 83.6)	80.4 (78.7 - 81.9)	82.8 (81.5 - 84.1)	83.2 (81.9 - 84.3)	77.7 (77.3 - 78.2)
	80-99	76.9 (75.5 - 78.1)	71.4 (70.4 - 72.4)	69.4 (67.2 - 71.5)	60.3 (57.4 - 63.2)	67.8 (65.5 - 70.0)	68.9 (66.9 - 70.9)	57.7 (57.1 - 58.3)
<b>TNM Stage<sup>c</sup></b>								
Stage I	All ages	99.6 (97.5 - 99.9)	95.0 (94.5 - 95.5)	97.4 (95.7 - 98.4)	97.9 (95.9 - 98.9)		98.0 (96.6 - 98.8)	98.4 (98.0 - 98.7)
	15-49	99.3 (93.3 - 99.9)	98.7 (97.3 - 99.4)	98.1 (85.8 - 99.8)	100.0 (100.0 - 100.0)		100.0 (100.0 - 100.0)	99.8 (98.1 - 100.0)
	50-64	99.7 (95.4 - 100.0)	98.7 (98.0 - 99.2)	99.1 (94.6 - 99.8)	99.4 (91.3 - 100.0)		99.6 (89.7 - 100.0)	99.5 (98.8 - 99.8)
	65-79	99.0 (96.8 - 99.7)	97.0 (96.1 - 97.7)	97.9 (95.4 - 99.0)	98.5 (94.6 - 99.6)		97.8 (95.3 - 99.0)	99.0 (98.3 - 99.4)
	80-99	100.0 (100.0 - 100.0)	90.0 (87.9 - 91.8)	91.7 (83.9 - 95.8)	91.8 (82.3 - 96.3)		94.7 (88.9 - 97.5)	93.9 (92.1 - 95.3)
Stage II	All ages	98.4 (97.5 - 98.9)	95.0 (94.5 - 95.5)	94.1 (93.0 - 95.1)	93.9 (92.5 - 95.1)		97.1 (96.3 - 97.8)	94.7 (94.4 - 95.1)
	15-49	100.0 (100.0 - 100.0)	98.1 (96.4 - 99.0)	98.8 (89.5 - 99.9)	97.9 (91.2 - 99.5)		100.0 (100.0 - 100.0)	98.7 (97.8 - 99.3)
	50-64	99.6 (96.8 - 99.9)	97.4 (96.5 - 98.0)	95.8 (93.4 - 97.3)	98.3 (95.7 - 99.3)		97.5 (97.4 - 99.9)	97.5 (96.9 - 98.0)
	65-79	97.4 (95.8 - 98.4)	95.2 (94.4 - 96.0)	94.2 (92.5 - 95.4)	93.2 (90.8 - 95.0)		96.7 (95.2 - 97.7)	94.9 (94.3 - 95.4)
	80-99	97.1 (93.6 - 98.7)	88.6 (87.0 - 90.1)	87.2 (83.6 - 90.1)	84.3 (79.1 - 88.2)		92.9 (89.7 - 95.1)	86.8 (85.7 - 87.9)
Stage III	All ages	93.7 (92.5 - 94.7)	90.7 (90.1 - 91.3)	90.6 (89.2 - 91.9)	89.3 (87.5 - 90.8)		92.4 (91.1 - 93.6)	88.6 (88.2 - 89.1)
	15-49	95.7 (91.7 - 97.8)	97.7 (96.2 - 98.6)	96.0 (90.3 - 98.4)	96.4 (91.4 - 98.6)		99.3 (93.5 - 99.9)	95.9 (94.7 - 96.9)
	50-64	97.6 (95.8 - 98.7)	94.8 (93.8 - 95.6)	94.7 (92.1 - 96.4)	95.4 (92.7 - 97.1)		95.8 (93.4 - 97.3)	93.8 (93.0 - 94.4)
	65-79	93.2 (91.1 - 94.8)	90.6 (89.5 - 91.5)	92.2 (90.2 - 93.8)	90.3 (87.6 - 92.5)		93.0 (90.9 - 94.6)	88.9 (88.1 - 89.6)
	80-99	86.1 (81.8 - 89.4)	79.4 (77.4 - 81.3)	75.3 (70.3 - 79.7)	69.2 (62.9 - 74.7)		81.6 (77.3 - 85.1)	73.7 (72.3 - 75.1)
Stage IV	All ages	59.4 (56.9 - 61.7)	49.5 (48.4 - 50.7)	54.8 (52.6 - 56.9)	45.6 (42.8 - 48.3)		53.4 (51.3 - 55.5)	42.8 (42.1 - 43.5)
	15-49	71.7 (64.3 - 77.9)	68.8 (65.0 - 72.2)	70.8 (61.3 - 78.3)	64.3 (53.5 - 73.2)		66.7 (58.8 - 73.4)	57.4 (54.7 - 60.0)
	50-64	69.6 (65.0 - 73.7)	60.7 (58.6 - 62.7)	65.3 (61.1 - 69.1)	57.1 (51.8 - 62.0)		63.7 (59.5 - 67.6)	53.3 (51.8 - 54.7)
	65-79	58.4 (54.5 - 62.2)	46.3 (44.5 - 48.1)	51.6 (48.6 - 54.5)	43.3 (39.3 - 47.3)		52.3 (49.1 - 55.4)	40.2 (39.2 - 41.3)
	80-99	34.2 (29.1 - 39.4)	24.3 (22.2 - 26.4)	31.2 (27.0 - 35.6)	18.7 (14.3 - 23.5)		28.0 (24.3 - 31.8)	20.3 (19.2 - 21.4)
Missing	All ages	78.4 (75.4 - 81.0)	71.1 (69.3 - 72.7)	81.6 (79.6 - 83.4)	71.4 (67.0 - 75.3)		71.0 (68.0 - 73.8)	71.6 (70.9 - 72.2)
	15-49	97.3 (91.6 - 99.2)	93.5 (89.5 - 96.0)	91.1 (82.0 - 95.7)	98.9 (91.1 - 99.9)		88.0 (75.1 - 94.5)	89.2 (87.5 - 90.7)
	50-64	92.8 (87.2 - 96.0)	87.9 (84.8 - 90.4)	89.2 (84.9 - 92.4)	90.1 (78.5 - 95.6)		87.8 (81.7 - 91.9)	82.2 (80.9 - 83.5)
	65-79	77.0 (71.1 - 81.8)	68.4 (65.2 - 71.5)	79.3 (76.2 - 82.0)	66.7 (58.7 - 73.5)		67.6 (62.2 - 72.3)	70.2 (69.2 - 71.2)
	80-99	50.8 (45.1 - 56.1)	38.6 (35.5 - 41.7)	65.6 (60.8 - 70.0)	35.7 (28.7 - 42.7)		39.8 (34.5 - 45.0)	44.2 (43.1 - 45.3)
<b>Mapped SEER stage<sup>d</sup></b>								
Localised	All ages	98.5 (98.0 - 98.9)	96.6 (96.2 - 96.9)	97.3 (96.5 - 98.0)	97.1 (96.0 - 97.9)	98.8 (97.7 - 99.4)	97.7 (97.0 - 98.3)	97.1 (96.9 - 97.4)
	15-49	99.5 (98.1 - 99.9)	98.8 (97.8 - 99.4)	99.1 (91.7 - 99.9)	99.2 (92.2 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.5 (98.9 - 99.7)
	50-64	99.5 (98.6 - 99.8)	98.6 (98.0 - 99.0)	98.5 (96.8 - 99.3)	99.7 (94.6 - 100.0)	99.9 (2.6 - 100.0)	99.7 (97.2 - 100.0)	98.9 (98.5 - 99.2)
	65-79	98.7 (97.9 - 99.1)	96.9 (96.3 - 97.4)	97.2 (95.9 - 98.0)	96.9 (95.0 - 98.1)	99.3 (96.6 - 99.8)	97.5 (96.3 - 98.3)	97.4 (97.0 - 97.8)
	80-99	95.5 (93.6 - 96.9)	91.0 (89.5 - 92.3)	94.1 (90.7 - 96.3)	90.6 (85.9 - 93.8)	95.1 (90.2 - 97.5)	93.9 (91.2 - 95.8)	91.4 (90.5 - 92.3)
Regional	All ages	94.7 (94.2 - 95.3)	91.6 (91.1 - 92.1)	88.8 (87.4 - 90.0)	88.6 (87.1 - 90.0)	93.5 (92.4 - 94.4)	92.6 (91.4 - 93.6)	88.0 (87.6 - 88.4)
	15-49	97.2 (95.5 - 98.3)	97.4 (96.1 - 98.2)	96.0 (91.1 - 98.2)	96.5 (92.1 - 98.5)	97.0 (93.1 - 98.7)	99.4 (94.3 - 99.9)	96.1 (95.0 - 97.0)
	50-64	97.6 (96.6 - 98.2)	95.4 (94.7 - 96.1)	93.2 (90.7 - 95.0)	95.0 (92.5 - 96.6)	96.1 (94.1 - 97.5)	96.0 (93.8 - 97.4)	93.5 (92.8 - 94.2)
	65-79	94.4 (93.4 - 95.2)	91.5 (90.7 - 92.3)	90.4 (88.5 - 91.9)	89.2 (86.7 - 91.2)	94.0 (92.5 - 95.3)	92.8 (90.8 - 94.3)	88.0 (87.3 - 88.6)
	80-99	88.5 (86.6 - 90.2)	81.4 (79.8 - 82.9)	71.5 (67.1 - 75.4)	69.3 (63.9 - 74.0)	85.1 (81.7 - 87.9)	82.5 (78.6 - 85.8)	72.4 (71.1 - 73.6)
Distant	All ages	56.9 (55.3 - 58.4)	51.0 (49.9 - 52.1)	54.8 (52.6 - 56.9)	45.6 (42.8 - 48.3)	46.4 (44.0 - 48.8)	53.4 (51.3 - 55.5)	42.9 (42.1 - 43.6)
	15-49	72.0 (67.3 - 76.2)	69.9 (66.2 - 73.2)	70.8 (61.3 - 78.3)	64.3 (53.5 - 73.2)	59.7 (51.7 - 66.8)	66.7 (58.8 - 73.4)	57.5 (54.8 - 60.2)
	50-64	68.9 (66.0 - 71.7)	62.0 (60.0 - 64.0)	65.3 (61.1 - 69.1)	57.1 (51.8 - 62.0)	53.7 (48.8 - 58.3)	63.7 (59.5 - 67.6)	53.3 (51.9 - 54.8)
	65-79	53.8 (51.4 - 56.2)	47.9 (46.2 - 49.7)	51.6 (48.6 - 54.5)	43.3 (39.3 - 47.3)	46.1 (42.5 - 49.6)	52.3 (49.1 - 55.4)	40.3 (39.2 - 41.3)
	80-99	31.5 (28.4 - 34.6)	26.1 (24.1 - 28.2)	31.2 (27.0 - 35.6)	18.7 (14.3 - 23.5)	25.6 (21.5 - 29.8)	28.0 (24.3 - 31.8)	20.2 (19.1 - 21.2)
Missing	All ages	81.2 (79.3 - 83.0)	68.9 (66.9 - 70.8)	81.6 (79.5 - 83.4)	71.3 (66.9 - 75.2)	76.4 (73.2 - 79.3)	70.8 (67.8 - 73.6)	68.5 (67.8 - 69.3)
	15-49	95.6 (91.3 - 97.8)	92.8 (87.9 - 95.8)	91.1 (82.0 - 95.7)	98.9 (91.1 - 99.9)	90.0 (71.9 - 96.7)	87.2 (73.7 - 94.1)	85.9 (83.8 - 87.7)
	50-64	92.9 (89.3 - 95.4)	85.8 (82.1 - 88.7)	89.2 (84.9 - 92.4)	89.9 (78.2 - 95.5)	89.5 (82.6 - 93.8)	87.5 (81.4 - 91.7)	78.9 (77.3 - 80.3)
	65-79	83.1 (79.6 - 86.0)	65.7 (62.1 - 69.1)	79.3 (76.2 - 82.0)	66.5 (58.5 - 73.3)	76.3 (71.2 - 80.7)	67.5 (62.1 - 72.3)	67.1 (65.9 - 68.2)
	80-99	54.2 (49.8 - 58.3)	37.3 (34.0 - 40.5)	65.4 (60.6 - 69.8)	35.6 (28.6 - 42.7)	50.4 (44.9 - 55.6)	39.8 (34.5 - 45.0)	41.6 (40.5 - 42.8)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>a</sup> Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>b</sup> Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>c</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>d</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 8B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation, presenting results of those with missing stage information) and country for colon cancer patients diagnosed during 2010-2014

Stage		Australia <sup>†</sup>	Canada <sup>‡</sup>	Denmark	Ireland <sup>§</sup>	New Zealand	Norway	United Kingdom <sup>¶</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	70.9 (70.2 - 71.6)	70.8 (70.2 - 71.3)	65.5 (64.2 - 66.7)	60.9 (59.5 - 62.2)	62.1 (60.8 - 63.4)	65.4 (64.2 - 66.5)	59.1 (58.7 - 59.4)
	15-49	73.7 (71.5 - 75.8)	73.9 (72.3 - 75.5)	66.4 (61.8 - 70.6)	72.6 (68.4 - 76.4)	63.4 (58.9 - 67.5)	69.2 (65.1 - 72.9)	67.1 (65.9 - 68.3)
	50-64	73.0 (71.7 - 74.3)	72.8 (72.0 - 73.7)	66.8 (64.7 - 68.8)	65.4 (63.0 - 67.7)	63.2 (60.7 - 65.6)	67.9 (65.7 - 69.9)	64.2 (63.5 - 64.8)
	65-79	71.8 (70.7 - 72.8)	71.0 (70.2 - 71.8)	64.6 (62.9 - 66.2)	60.6 (58.6 - 62.6)	64.5 (62.7 - 66.3)	65.3 (63.6 - 66.9)	60.6 (60.1 - 61.1)
	80-99	63.4 (61.1 - 65.5)	64.6 (63.0 - 66.2)	64.6 (60.6 - 68.3)	44.7 (40.8 - 48.6)	53.3 (49.8 - 56.6)	58.4 (55.2 - 61.5)	41.3 (40.5 - 42.2)
<b>TNM Stage<sup>§</sup></b>								
Stage I	All ages	98.4 (95.0 - 99.5)	93.4 (92.0 - 94.5)	95.7 (91.0 - 98.0)	93.7 (90.0 - 96.1)		95.9 (92.3 - 97.9)	96.2 (94.9 - 97.2)
	15-49	97.1 (90.6 - 99.1)	95.8 (92.5 - 97.6)	91.9 (79.9 - 96.9)	95.3 (83.1 - 98.7)		100.0 (100.0 - 100.0)	97.4 (93.4 - 99.0)
	50-64	96.6 (93.5 - 98.2)	95.4 (93.7 - 96.6)	93.7 (87.8 - 96.8)	95.5 (90.2 - 98.0)			98.2 (96.5 - 99.1)
	65-79	96.4 (92.6 - 98.2)	94.8 (92.7 - 96.3)	94.6 (88.6 - 97.5)	94.6 (88.5 - 97.5)			97.3 (95.3 - 98.4)
	80-99	100.0 (100.0 - 100.0)	85.3 (79.6 - 89.5)	100.0 (100.0 - 100.0)	87.0 (67.9 - 95.1)			88.6 (82.2 - 92.8)
Stage II	All ages	91.0 (89.1 - 92.6)	87.6 (86.4 - 88.7)	89.8 (87.7 - 91.7)	86.4 (84.1 - 88.4)		91.6 (89.7 - 93.1)	86.5 (85.6 - 87.4)
	15-49	93.7 (87.9 - 96.8)	91.8 (88.0 - 94.4)	91.3 (82.9 - 95.7)	92.9 (85.8 - 96.6)		94.4 (88.7 - 97.3)	89.5 (86.4 - 92.0)
	50-64	88.4 (85.6 - 90.7)	89.7 (87.9 - 91.2)	89.0 (85.5 - 91.8)	91.4 (87.8 - 94.0)		93.5 (90.6 - 95.6)	88.7 (87.2 - 90.0)
	65-79	69.1 (65.6 - 72.3)	85.8 (84.0 - 87.4)	86.2 (83.3 - 88.6)	83.6 (80.1 - 86.6)		90.7 (87.9 - 92.8)	85.7 (84.4 - 87.0)
	80-99	89.8 (81.2 - 94.6)	85.5 (81.1 - 88.9)	97.6 (54.7 - 99.9)	79.1 (69.2 - 86.1)		88.3 (80.6 - 93.1)	82.8 (79.5 - 85.6)
Stage III	All ages	71.5 (69.2 - 73.7)	70.5 (69.2 - 71.8)	73.9 (71.5 - 76.2)	66.3 (63.7 - 68.7)		71.6 (69.2 - 73.9)	64.9 (63.9 - 65.9)
	15-49	78.3 (71.6 - 83.6)	80.9 (77.3 - 83.9)	79.9 (71.3 - 86.2)	81.2 (74.1 - 86.5)		76.9 (68.5 - 83.4)	74.7 (71.3 - 77.7)
	50-64	77.3 (73.5 - 80.6)	76.4 (74.4 - 78.3)	76.8 (72.8 - 80.3)	73.7 (69.6 - 77.3)		75.5 (69.8 - 79.9)	71.5 (69.8 - 73.2)
	65-79	69.1 (65.6 - 72.3)	69.0 (67.0 - 70.9)	74.4 (71.0 - 77.5)	65.7 (61.8 - 69.3)		69.6 (66.0 - 72.9)	64.4 (62.9 - 65.8)
	80-99	62.1 (54.4 - 68.8)	56.9 (52.8 - 60.8)	63.1 (54.1 - 70.8)	40.1 (32.2 - 47.9)		64.3 (56.9 - 70.8)	46.7 (43.7 - 49.7)
Stage IV	All ages	16.4 (14.5 - 18.3)	13.0 (12.1 - 13.9)	16.2 (14.6 - 17.9)	10.3 (8.8 - 11.8)		16.6 (14.9 - 18.3)	10.3 (9.6 - 11.0)
	15-49	26.2 (19.9 - 32.9)	21.5 (18.2 - 25.1)	19.9 (13.6 - 27.1)	16.5 (10.6 - 23.5)		21.8 (15.8 - 28.4)	14.5 (11.7 - 17.5)
	50-64	19.1 (15.8 - 22.7)	16.6 (14.9 - 18.4)	22.5 (19.3 - 25.9)	14.0 (11.1 - 17.3)		22.4 (19.0 - 25.9)	14.0 (12.6 - 15.5)
	65-79	15.8 (12.9 - 19.0)	11.4 (10.0 - 12.9)	12.9 (11.0 - 15.0)	8.7 (6.8 - 10.8)		13.6 (11.4 - 16.0)	9.0 (8.1 - 9.9)
	80-99	5.7 (3.3 - 9.1)	4.1 (2.8 - 5.6)	10.2 (7.0 - 14.1)	2.9 (1.2 - 5.7)		9.0 (6.3 - 12.4)	3.5 (2.6 - 4.6)
Missing	All ages	59.1 (55.3 - 62.8)	54.8 (53.0 - 56.6)	69.8 (66.5 - 72.9)	55.4 (50.4 - 60.2)		58.5 (54.7 - 62.0)	54.6 (54.0 - 55.3)
	15-49	86.3 (76.9 - 92.1)	77.3 (72.6 - 81.3)	75.3 (61.2 - 84.9)	97.7 (87.8 - 99.6)		86.4 (72.9 - 93.5)	71.6 (69.7 - 73.4)
	50-64	77.1 (69.5 - 83.1)	71.3 (68.0 - 74.4)	77.3 (71.0 - 82.5)	79.5 (67.6 - 87.4)		78.6 (70.9 - 84.4)	63.0 (61.7 - 64.3)
	65-79	56.9 (50.3 - 63.0)	52.4 (49.2 - 55.5)	68.1 (63.6 - 72.2)	45.7 (37.8 - 53.2)		52.1 (45.9 - 57.9)	54.7 (53.7 - 55.6)
	80-99	25.9 (20.2 - 32.0)	24.2 (21.4 - 27.1)	54.6 (45.6 - 62.8)	11.3 (6.4 - 17.7)		24.1 (18.0 - 30.9)	28.7 (27.7 - 29.7)
<b>Mapped SEER stage<sup>§</sup></b>								
Localised	All ages	95.7 (94.6 - 96.5)	92.6 (91.6 - 93.5)	96.0 (93.8 - 97.4)	92.4 (90.3 - 94.0)	95.9 (93.4 - 97.4)	94.0 (92.3 - 95.3)	92.5 (91.8 - 93.2)
	15-49	96.3 (93.9 - 97.7)	94.9 (92.3 - 96.6)	93.7 (87.1 - 97.0)	97.0 (90.9 - 99.0)	97.6 (89.7 - 99.5)	97.8 (93.3 - 99.3)	94.2 (91.9 - 95.8)
	50-64	96.4 (95.1 - 97.4)	94.4 (93.1 - 95.5)	94.0 (91.1 - 96.0)	95.9 (93.1 - 97.6)	95.9 (92.3 - 97.8)	94.7 (92.2 - 96.4)	94.1 (93.1 - 95.0)
	65-79	95.0 (93.5 - 96.1)	92.0 (90.5 - 93.3)	92.5 (89.8 - 94.5)	95.9 (93.1 - 97.6)	94.6 (91.2 - 96.7)	92.6 (90.3 - 94.4)	92.3 (91.2 - 93.2)
	80-99	95.5 (89.5 - 98.1)	89.3 (85.1 - 92.4)	100.0 (100.0 - 100.0)	92.1 (88.9 - 94.3)	97.9 (41.5 - 99.9)	93.0 (85.1 - 96.8)	88.8 (85.7 - 91.2)
Regional	All ages	78.1 (76.9 - 79.2)	75.2 (74.2 - 76.2)	72.5 (70.3 - 74.5)	67.5 (65.2 - 69.6)	75.8 (73.9 - 77.6)	72.7 (70.5 - 74.9)	65.3 (64.4 - 66.2)
	15-49	85.5 (82.3 - 88.2)	83.9 (81.0 - 86.4)	80.4 (72.8 - 86.1)	81.5 (75.3 - 86.3)	80.3 (74.1 - 85.1)	77.8 (70.1 - 83.7)	75.7 (72.8 - 78.4)
	50-64	81.9 (80.0 - 83.6)	80.0 (78.4 - 81.6)	75.5 (71.8 - 78.8)	74.2 (70.5 - 77.5)	77.9 (74.3 - 81.1)	77.6 (73.7 - 80.9)	72.2 (70.7 - 73.7)
	65-79	76.3 (74.5 - 77.9)	73.7 (72.1 - 75.2)	72.4 (69.4 - 75.2)	65.0 (61.6 - 68.3)	74.8 (72.1 - 77.3)	70.7 (67.4 - 73.8)	64.4 (63.0 - 65.7)
	80-99	70.4 (66.5 - 74.0)	64.6 (61.3 - 67.8)	60.9 (53.2 - 67.7)	48.8 (41.2 - 56.0)	70.2 (64.2 - 75.5)	65.7 (58.8 - 71.8)	47.2 (44.6 - 49.8)
Distant	All ages	17.5 (16.3 - 18.8)	15.1 (14.2 - 16.1)	16.2 (14.6 - 17.9)	10.3 (8.8 - 11.8)	13.3 (11.6 - 15.1)	16.6 (14.9 - 18.3)	10.2 (9.5 - 10.9)
	15-49	25.3 (21.3 - 29.5)	23.6 (20.2 - 27.1)	19.9 (13.6 - 27.1)	16.5 (10.6 - 23.5)	19.8 (13.7 - 26.7)	21.8 (15.8 - 28.4)	14.1 (11.3 - 17.1)
	50-64	22.2 (19.8 - 24.6)	18.9 (17.2 - 20.7)	22.5 (19.3 - 25.9)	14.0 (11.1 - 17.3)	15.9 (12.6 - 19.6)	22.4 (19.0 - 25.9)	13.8 (12.4 - 15.3)
	65-79	15.7 (14.0 - 17.6)	13.9 (12.4 - 15.4)	12.9 (11.0 - 15.0)	8.7 (6.8 - 10.8)	11.9 (9.6 - 14.4)	13.6 (11.4 - 16.0)	9.0 (8.1 - 9.9)
	80-99	8.0 (6.0 - 10.3)	5.4 (4.0 - 7.0)	10.2 (7.0 - 14.1)	2.9 (1.2 - 5.7)	6.8 (3.7 - 11.3)	9.0 (6.3 - 12.4)	3.5 (2.6 - 4.6)
Missing	All ages	64.8 (62.2 - 67.4)	52.6 (50.7 - 54.6)	69.9 (66.6 - 73.0)	55.4 (50.3 - 60.1)	48.7 (44.0 - 53.3)	58.3 (54.5 - 61.9)	51.6 (50.9 - 52.2)
	15-49	85.8 (79.6 - 90.1)	76.9 (71.5 - 81.3)	75.3 (61.2 - 84.9)	97.7 (87.8 - 99.6)	62.5 (39.2 - 79.0)	85.6 (71.3 - 93.0)	67.7 (65.5 - 69.7)
	50-64	79.1 (74.1 - 83.3)	68.4 (64.6 - 71.9)	77.3 (70.9 - 82.5)	79.3 (67.2 - 87.3)	58.2 (48.1 - 67.1)	78.1 (70.4 - 84.1)	59.4 (58.0 - 60.8)
	65-79	66.6 (62.0 - 70.7)	50.0 (46.5 - 53.4)	68.2 (63.7 - 72.4)	45.4 (37.5 - 53.0)	57.1 (49.5 - 64.0)	52.0 (45.8 - 57.8)	51.6 (50.6 - 52.6)
	80-99	31.6 (26.6 - 36.8)	22.7 (19.8 - 25.6)	54.8 (45.7 - 63.0)	11.1 (6.2 - 17.6)	15.2 (10.2 - 21.1)	24.1 (18.0 - 30.9)	26.6 (25.6 - 27.6)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>‡</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>§</sup>Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup>Model2: Age spline allowing separate models for each stage category

**Supplementary Table 9A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation, presenting results of those with missing stage information) and country for rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>a</sup>	Canada <sup>a</sup>	Denmark	Ireland <sup>b</sup>	New Zealand	Norway	United Kingdom <sup>c</sup>
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>d</sup>	All ages	90.0 (89.2 - 90.7)	87.3 (86.7 - 87.9)	87.5 (86.5 - 88.5)	86.3 (84.6 - 87.8)	85.9 (84.5 - 87.3)	89.1 (88.0 - 90.2)	84.8 (84.4 - 85.2)
	15-49	95.9 (94.3 - 97.1)	94.9 (93.6 - 95.9)	92.7 (88.8 - 95.3)	96.5 (92.5 - 98.4)	90.4 (86.0 - 93.4)	92.6 (88.8 - 95.2)	90.6 (89.4 - 91.7)
	50-64	94.0 (93.0 - 95.0)	91.9 (91.1 - 92.7)	92.1 (90.5 - 93.5)	90.6 (88.2 - 92.5)	91.3 (89.0 - 93.1)	94.5 (92.9 - 95.8)	90.9 (90.3 - 91.5)
	65-79	89.4 (88.1 - 90.5)	87.6 (86.6 - 88.5)	87.7 (86.2 - 89.0)	87.2 (84.7 - 89.3)	85.6 (83.3 - 87.6)	90.4 (88.7 - 91.8)	84.9 (84.3 - 85.4)
	80-99	80.2 (77.4 - 82.7)	74.2 (72.0 - 76.2)	73.3 (69.7 - 76.5)	69.0 (63.2 - 74.1)	74.2 (69.3 - 78.4)	75.0 (71.1 - 78.5)	69.8 (68.6 - 70.9)
<b>TNM Stage<sup>e</sup></b>								
Stage I	All ages	99.0 (96.8 - 99.7)	93.7 (92.4 - 94.8)	97.6 (95.6 - 98.7)	98.0 (94.2 - 99.3)		100.0 (100.0 - 100.0)	98.4 (97.9 - 98.8)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)		100.0 (100.0 - 100.0)	99.1 (97.1 - 99.7)
	50-64	99.8 (78.4 - 100.0)	99.7 (97.5 - 99.4)	99.3 (92.9 - 99.9)	99.8 (0.2 - 100.0)		100.0 (100.0 - 100.0)	99.2 (98.5 - 99.6)
	65-79	97.2 (94.2 - 98.7)	96.5 (94.9 - 97.6)	97.4 (94.3 - 98.8)	97.1 (90.9 - 99.1)		99.9 (0.0 - 100.0)	98.6 (97.7 - 99.1)
	80-99	100.0 (100.0 - 100.0)	89.8 (85.4 - 92.9)	92.8 (80.7 - 97.4)	96.1 (68.4 - 99.6)		100.0 (100.0 - 100.0)	95.9 (93.4 - 97.5)
Stage II	All ages	99.2 (95.6 - 99.8)	93.7 (92.4 - 94.8)	94.1 (92.3 - 95.5)	92.4 (88.9 - 94.8)		98.4 (96.1 - 99.4)	93.8 (93.1 - 94.5)
	15-49	100.0 (100.0 - 100.0)	99.0 (95.1 - 99.8)	98.2 (85.4 - 99.8)	96.1 (74.0 - 99.5)		100.0 (100.0 - 100.0)	98.8 (96.5 - 99.6)
	50-64	98.7 (94.0 - 99.7)	95.8 (94.0 - 97.1)	96.0 (92.7 - 97.8)	93.6 (86.8 - 96.9)		100.0 (0.0 - 100.0)	97.4 (96.3 - 98.2)
	65-79	99.3 (88.1 - 100.0)	93.7 (91.7 - 95.3)	94.8 (92.1 - 96.6)	92.0 (86.7 - 95.2)		97.8 (93.7 - 99.3)	92.7 (91.5 - 93.8)
	80-99	98.9 (11.1 - 100.0)	86.3 (81.5 - 90.0)	84.0 (76.1 - 89.5)	88.7 (73.5 - 95.4)		96.0 (83.2 - 99.1)	86.1 (83.4 - 88.3)
Stage III	All ages	96.9 (94.5 - 98.3)	93.6 (92.5 - 94.4)	93.9 (92.2 - 95.2)	91.7 (89.1 - 93.6)		98.2 (95.8 - 99.3)	92.2 (91.5 - 92.7)
	15-49	100.0 (100.0 - 100.0)	98.3 (96.6 - 99.2)	97.9 (90.9 - 99.5)	100.0 (100.0 - 100.0)		100.0 (100.0 - 100.0)	95.4 (93.7 - 96.6)
	50-64	97.7 (94.1 - 99.1)	96.5 (95.4 - 97.3)	97.8 (95.4 - 99.0)	96.2 (93.2 - 97.9)		99.5 (91.3 - 100.0)	96.2 (95.4 - 96.9)
	65-79	96.6 (92.4 - 98.5)	93.6 (92.0 - 94.8)	93.6 (91.1 - 95.4)	93.3 (89.5 - 95.8)		99.2 (90.3 - 99.9)	91.8 (90.8 - 92.6)
	80-99	94.3 (82.4 - 98.3)	85.2 (81.0 - 88.5)	82.8 (74.7 - 88.5)	71.6 (60.5 - 80.1)		92.5 (81.4 - 97.1)	82.9 (80.6 - 85.1)
Stage IV	All ages	68.9 (64.1 - 73.2)	57.1 (55.0 - 59.2)	63.7 (60.3 - 67.0)	58.6 (53.4 - 63.5)		64.4 (60.5 - 68.1)	54.5 (53.2 - 55.8)
	15-49	85.6 (75.4 - 91.8)	76.3 (70.5 - 81.1)	71.5 (56.7 - 82.0)	82.7 (65.4 - 91.9)		79.0 (67.1 - 87.0)	67.4 (62.9 - 71.5)
	50-64	78.5 (70.7 - 84.4)	67.9 (64.5 - 71.1)	72.3 (66.5 - 77.4)	68.0 (59.7 - 74.9)		79.3 (73.0 - 84.3)	65.5 (63.1 - 67.7)
	65-79	68.8 (60.9 - 75.5)	54.6 (51.1 - 58.0)	63.6 (59.1 - 67.8)	56.4 (48.1 - 64.0)		65.0 (58.8 - 70.5)	52.2 (50.2 - 54.1)
	80-99	41.5 (29.6 - 53.1)	32.9 (28.0 - 37.9)	36.8 (29.1 - 44.6)	30.7 (19.3 - 42.8)		32.7 (24.2 - 41.5)	31.7 (29.0 - 34.3)
Missing	All ages	83.7 (80.4 - 86.4)	80.3 (78.0 - 82.4)	86.2 (83.6 - 88.4)	82.1 (76.1 - 86.7)		84.1 (81.5 - 86.3)	80.5 (79.6 - 81.3)
	15-49	95.3 (87.7 - 98.3)	97.7 (93.6 - 99.2)	92.7 (78.5 - 97.6)	100.0 (100.0 - 100.0)		91.4 (82.5 - 95.8)	91.5 (88.8 - 93.5)
	50-64	92.2 (87.0 - 95.4)	90.9 (87.8 - 93.2)	93.0 (88.6 - 95.7)	93.3 (81.9 - 97.7)		94.7 (91.1 - 96.9)	89.8 (88.3 - 91.1)
	65-79	78.1 (71.7 - 83.3)	79.5 (75.1 - 83.3)	85.2 (81.3 - 88.3)	84.1 (73.4 - 90.7)		86.2 (82.2 - 89.3)	79.5 (78.0 - 81.0)
	80-99	66.5 (57.5 - 74.0)	58.1 (52.4 - 63.3)	71.8 (64.3 - 78.0)	47.4 (32.0 - 61.3)		58.0 (50.2 - 64.9)	58.4 (56.2 - 60.5)
<b>Mapped SEER stage<sup>f</sup></b>								
Localised	All ages	97.3 (96.3 - 98.0)	96.5 (95.7 - 97.1)	96.9 (95.6 - 97.8)	96.3 (94.0 - 97.7)	98.8 (94.9 - 99.7)	99.5 (97.3 - 99.9)	96.9 (96.5 - 97.3)
	15-49	100.0 (100.0 - 100.0)	99.9 (83.3 - 100.0)	99.0 (90.4 - 99.9)	98.0 (84.9 - 99.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.1 (97.9 - 99.6)
	50-64	98.7 (97.4 - 99.3)	98.5 (97.6 - 99.1)	98.3 (96.1 - 99.2)	97.3 (93.4 - 98.9)	99.9 (0.0 - 100.0)	100.0 (100.0 - 100.0)	98.6 (98.0 - 99.0)
	65-79	96.8 (95.3 - 97.8)	96.3 (95.0 - 97.2)	96.9 (95.0 - 98.1)	96.3 (92.7 - 98.1)	99.7 (0.1 - 100.0)	99.3 (95.6 - 99.9)	96.8 (96.1 - 97.3)
	80-99	93.9 (89.5 - 96.5)	90.9 (87.5 - 93.4)	91.7 (85.0 - 95.5)	93.2 (82.0 - 97.5)	94.2 (77.9 - 98.6)	98.5 (82.3 - 99.9)	92.7 (91.0 - 94.1)
Regional	All ages	96.0 (94.9 - 96.9)	92.9 (92.0 - 93.7)	92.6 (90.9 - 93.9)	90.9 (88.5 - 92.9)	95.4 (92.9 - 97.0)	98.0 (95.8 - 99.1)	91.4 (90.8 - 92.0)
	15-49	99.5 (97.0 - 99.9)	98.4 (96.8 - 99.2)	98.1 (91.9 - 99.6)	100.0 (100.0 - 100.0)	95.9 (83.9 - 99.0)	100.0 (100.0 - 100.0)	95.2 (93.6 - 96.4)
	50-64	97.7 (96.2 - 98.6)	95.9 (94.8 - 96.7)	96.7 (94.3 - 98.1)	95.9 (93.0 - 97.6)	96.8 (92.0 - 98.8)	99.6 (90.3 - 100.0)	96.0 (95.3 - 96.7)
	65-79	95.3 (93.4 - 96.6)	93.1 (91.8 - 94.3)	92.8 (90.4 - 94.6)	91.5 (87.7 - 94.1)	95.5 (91.6 - 97.6)	98.4 (93.8 - 99.6)	90.9 (90.0 - 91.8)
	80-99	92.5 (87.4 - 95.6)	83.9 (80.4 - 86.8)	78.9 (71.8 - 84.5)	72.6 (62.1 - 80.7)	91.6 (80.4 - 96.6)	93.2 (82.6 - 97.5)	80.9 (78.7 - 83.0)
Distant	All ages	62.7 (59.6 - 65.6)	58.3 (56.2 - 60.3)	63.7 (60.3 - 67.0)	58.6 (53.4 - 63.5)	46.7 (41.7 - 51.5)	64.4 (60.5 - 68.1)	54.6 (53.3 - 55.9)
	15-49	81.5 (74.3 - 86.8)	77.2 (71.8 - 81.7)	71.5 (56.7 - 82.0)	82.7 (65.4 - 91.9)	68.4 (54.7 - 78.8)	79.0 (67.1 - 87.0)	67.6 (63.0 - 71.7)
	50-64	74.4 (69.5 - 78.7)	69.3 (66.1 - 72.3)	72.3 (66.5 - 77.4)	68.0 (59.7 - 74.9)	60.6 (50.9 - 69.0)	79.3 (73.0 - 84.3)	65.4 (63.0 - 67.7)
	65-79	59.8 (54.7 - 64.5)	55.8 (52.4 - 59.1)	63.6 (59.1 - 67.8)	56.4 (48.1 - 64.0)	35.4 (28.2 - 42.6)	65.0 (58.8 - 70.5)	52.2 (50.2 - 54.2)
	80-99	37.3 (30.1 - 44.6)	33.9 (29.2 - 38.8)	36.8 (29.1 - 44.6)	30.7 (19.3 - 42.8)	35.8 (25.0 - 46.7)	32.7 (24.2 - 41.5)	32.1 (29.4 - 34.8)
Missing	All ages	85.8 (83.4 - 87.8)	74.3 (70.9 - 77.3)	86.2 (83.6 - 88.3)	82.1 (76.1 - 86.7)	89.3 (87.2 - 91.1)	84.0 (81.5 - 86.3)	78.3 (77.3 - 79.3)
	15-49	96.5 (92.2 - 98.5)	99.1 (92.1 - 99.9)	92.7 (78.5 - 97.6)	100.0 (100.0 - 100.0)	96.3 (91.0 - 98.5)	91.4 (82.5 - 95.8)	90.6 (87.6 - 92.9)
	50-64	94.1 (90.8 - 96.2)	88.7 (84.0 - 92.1)	93.0 (88.6 - 95.7)	93.3 (81.9 - 97.7)	95.3 (92.5 - 97.1)	94.7 (91.1 - 96.9)	88.3 (86.6 - 89.8)
	65-79	82.4 (78.0 - 85.9)	71.0 (64.4 - 76.6)	85.1 (81.2 - 88.2)	84.1 (73.4 - 90.7)	90.3 (87.1 - 92.7)	86.1 (82.2 - 89.2)	76.8 (75.1 - 78.4)
	80-99	67.8 (60.6 - 73.9)	49.4 (42.9 - 55.6)	71.8 (64.3 - 78.0)	47.4 (32.0 - 61.3)	71.7 (64.0 - 78.1)	57.9 (50.2 - 64.9)	55.5 (53.2 - 57.7)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>a</sup> Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>b</sup> Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>c</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>d</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 9B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation, presenting results of those with missing stage information) and country for rectal cancer patients diagnosed during 2010-2014

Stage		Australia <sup>1</sup>	Canada <sup>1</sup>	Denmark	Ireland <sup>1</sup>	New Zealand	Norway	United Kingdom <sup>1</sup>
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>1</sup>	All ages	70.8 (69.6 - 72.0)	70.9 (69.9 - 71.8)	69.1 (67.4 - 70.8)	61.6 (59.3 - 63.7)	65.4 (63.1 - 67.5)	68.8 (66.9 - 70.6)	62.1 (61.5 - 62.6)
	15-49	77.9 (75.0 - 80.5)	78.2 (76.0 - 80.2)	73.1 (67.5 - 77.9)	73.1 (67.1 - 78.2)	71.8 (65.8 - 76.9)	75.7 (70.1 - 80.4)	68.9 (67.1 - 70.6)
	50-64	75.4 (73.7 - 77.1)	76.5 (75.3 - 77.7)	74.8 (72.3 - 77.1)	66.0 (62.7 - 69.1)	71.0 (67.5 - 74.2)	73.0 (70.1 - 75.6)	70.1 (69.2 - 70.9)
	65-79	70.5 (68.6 - 72.3)	71.7 (70.3 - 73.1)	68.3 (66.0 - 70.5)	63.1 (59.7 - 66.3)	65.1 (61.9 - 68.2)	71.8 (69.1 - 74.3)	63.4 (62.6 - 64.3)
	80-99	58.2 (53.8 - 62.3)	55.2 (51.9 - 58.3)	56.7 (50.6 - 62.4)	41.4 (34.3 - 48.2)	51.7 (43.8 - 58.9)	51.2 (45.2 - 56.9)	39.3 (37.7 - 40.8)
<b>TNM Stage<sup>2</sup></b>								
Stage I	All ages	97.5 (92.6 - 99.2)	91.1 (88.7 - 93.0)	93.5 (88.4 - 96.4)	90.0 (84.1 - 93.8)		97.9 (90.7 - 99.6)	94.2 (92.6 - 95.5)
	15-49	99.6 (43.2 - 100.0)	96.4 (91.3 - 98.5)	95.6 (77.3 - 99.2)	94.6 (76.2 - 98.9)		98.8 (75.6 - 99.9)	97.1 (93.5 - 98.7)
	50-64	94.7 (90.8 - 97.0)	95.5 (92.9 - 97.2)	97.3 (89.8 - 99.3)	99.2 (46.0 - 100.0)		98.4 (90.3 - 99.7)	94.4 (92.4 - 95.9)
	65-79	95.3 (89.6 - 97.9)	91.5 (87.9 - 94.0)	93.5 (86.9 - 96.8)	85.2 (76.6 - 90.8)		95.6 (88.7 - 98.3)	94.2 (91.9 - 95.9)
	80-99	100.0 (100.0 - 100.0)	78.5 (68.5 - 85.7)	83.5 (58.7 - 94.1)	80.5 (51.9 - 93.1)		100.0 (100.0 - 100.0)	92.5 (82.0 - 97.0)
Stage II	All ages	89.1 (84.7 - 92.2)	78.7 (76.1 - 81.1)	83.4 (79.8 - 86.5)	74.8 (69.7 - 79.3)		87.5 (83.1 - 90.9)	77.4 (75.5 - 79.2)
	15-49	91.4 (79.2 - 96.6)	84.3 (77.8 - 89.0)	83.8 (70.2 - 91.5)	91.4 (72.7 - 97.5)		96.1 (81.2 - 99.2)	83.9 (77.5 - 88.7)
	50-64	88.4 (81.8 - 92.7)	84.8 (81.5 - 87.6)	88.1 (83.2 - 91.7)	79.5 (71.0 - 85.8)		86.4 (79.9 - 90.9)	83.2 (80.3 - 85.7)
	65-79	68.7 (62.1 - 74.4)	81.3 (77.6 - 84.5)	83.5 (78.7 - 87.4)	73.9 (66.4 - 80.0)		89.9 (83.2 - 94.1)	78.9 (76.2 - 81.3)
	80-99	95.3 (29.8 - 99.8)	58.2 (48.7 - 66.6)	75.6 (60.4 - 85.6)	57.2 (39.0 - 71.9)		79.9 (61.3 - 90.2)	56.3 (48.9 - 63.1)
Stage III	All ages	72.0 (67.7 - 75.8)	71.5 (69.3 - 73.6)	75.9 (72.9 - 78.6)	67.8 (63.9 - 71.4)		79.9 (75.5 - 83.6)	65.9 (64.3 - 67.5)
	15-49	76.3 (66.5 - 83.7)	82.0 (77.6 - 85.7)	78.2 (69.3 - 84.8)	82.5 (73.7 - 88.6)		87.7 (73.6 - 94.5)	74.1 (69.7 - 78.0)
	50-64	76.9 (71.0 - 81.8)	78.2 (75.5 - 80.7)	83.7 (79.7 - 87.0)	75.3 (70.4 - 79.6)		80.5 (73.9 - 85.6)	74.4 (72.0 - 76.6)
	65-79	68.7 (62.1 - 74.4)	72.8 (69.4 - 75.8)	75.9 (71.7 - 79.6)	68.5 (62.5 - 73.7)		80.3 (73.5 - 85.5)	65.4 (63.0 - 67.8)
	80-99	69.2 (52.2 - 81.2)	50.7 (42.4 - 58.5)	57.3 (44.2 - 68.4)	41.0 (28.2 - 53.4)		71.2 (52.4 - 83.7)	44.1 (38.5 - 49.6)
Stage IV	All ages	21.2 (17.4 - 25.2)	14.4 (12.7 - 16.3)	23.1 (20.1 - 26.3)	11.3 (8.6 - 14.4)		20.6 (17.6 - 23.8)	11.3 (10.0 - 12.8)
	15-49	35.5 (24.3 - 46.8)	26.6 (20.3 - 33.2)	32.1 (20.5 - 44.2)	14.8 (6.5 - 26.4)		35.3 (23.9 - 46.9)	21.9 (16.1 - 28.3)
	50-64	24.5 (18.2 - 31.3)	17.2 (14.3 - 20.4)	27.6 (22.6 - 32.8)	13.6 (9.2 - 18.8)		28.5 (22.9 - 34.3)	14.3 (11.6 - 17.3)
	65-79	22.5 (16.1 - 29.7)	13.3 (10.5 - 16.4)	19.6 (15.8 - 23.7)	10.3 (6.4 - 15.2)		19.1 (14.4 - 24.2)	9.6 (7.8 - 11.7)
	80-99	4.1 (0.6 - 13.7)	5.5 (2.7 - 9.6)	11.1 (5.2 - 19.5)	4.9 (1.0 - 13.8)		4.1 (1.2 - 9.8)	3.1 (1.7 - 5.3)
Missing	All ages	60.8 (56.5 - 64.7)	61.6 (59.1 - 64.1)	72.5 (67.3 - 77.0)	58.5 (51.7 - 64.6)		61.0 (57.1 - 64.6)	58.3 (57.4 - 59.1)
	15-49	84.9 (75.4 - 91.0)	85.5 (80.6 - 89.3)	85.6 (66.1 - 94.3)	85.7 (69.8 - 93.6)		79.9 (67.9 - 87.9)	69.6 (66.7 - 72.3)
	50-64	74.4 (67.8 - 79.8)	78.5 (75.0 - 81.6)	81.1 (73.4 - 86.7)	67.4 (55.3 - 76.9)		77.3 (71.6 - 82.1)	69.3 (67.8 - 70.8)
	65-79	57.4 (50.1 - 64.0)	59.3 (54.8 - 63.5)	67.0 (60.1 - 73.0)	63.1 (51.6 - 72.7)		66.0 (60.4 - 71.1)	57.9 (56.4 - 59.3)
	80-99	25.0 (16.7 - 34.2)	30.2 (25.2 - 35.4)	57.0 (41.8 - 69.6)	16.1 (6.7 - 29.0)		16.9 (10.1 - 25.2)	28.8 (27.0 - 30.7)
<b>Mapped SEER stage<sup>3</sup></b>								
Localised	All ages	91.0 (89.1 - 92.6)	89.2 (87.2 - 90.8)	91.7 (88.8 - 93.9)	84.4 (80.5 - 87.5)	93.7 (87.7 - 96.8)	94.2 (91.1 - 96.3)	87.7 (86.5 - 88.8)
	15-49	97.5 (94.2 - 98.9)	95.5 (92.1 - 97.5)	94.9 (86.0 - 98.2)	92.9 (82.0 - 97.3)	100.0 (100.0 - 100.0)	97.3 (89.2 - 99.4)	93.5 (90.2 - 95.7)
	50-64	92.0 (89.8 - 93.7)	94.0 (92.0 - 95.6)	94.8 (91.2 - 96.9)	90.7 (85.4 - 94.2)	95.3 (88.3 - 98.2)	94.1 (90.4 - 96.4)	90.5 (88.9 - 91.9)
	65-79	90.1 (87.4 - 92.2)	90.4 (87.6 - 92.6)	90.7 (86.8 - 93.4)	90.7 (85.4 - 94.2)	92.7 (84.6 - 96.6)	94.4 (90.0 - 96.9)	88.5 (86.8 - 90.0)
	80-99	87.4 (77.6 - 93.1)	73.6 (65.6 - 80.1)	84.6 (69.7 - 92.5)	81.8 (76.2 - 86.3)	87.3 (53.5 - 97.1)	91.9 (72.2 - 97.8)	75.9 (70.3 - 80.6)
Regional	All ages	74.3 (72.1 - 76.3)	72.4 (70.6 - 74.2)	73.5 (70.8 - 76.1)	66.8 (63.1 - 70.3)	74.6 (70.0 - 78.7)	78.3 (74.1 - 81.9)	64.7 (63.2 - 66.2)
	15-49	82.2 (77.5 - 86.0)	81.9 (77.9 - 85.3)	76.0 (67.5 - 82.6)	82.9 (74.2 - 88.8)	81.6 (68.5 - 89.6)	88.4 (75.1 - 94.9)	72.4 (68.1 - 76.2)
	50-64	79.3 (76.4 - 81.9)	79.4 (77.1 - 81.5)	81.7 (77.7 - 85.0)	74.9 (70.0 - 79.1)	80.8 (73.5 - 86.2)	79.1 (72.7 - 84.1)	73.6 (71.3 - 75.7)
	65-79	71.9 (68.6 - 74.9)	73.7 (70.9 - 76.2)	74.0 (70.0 - 77.5)	66.7 (61.0 - 71.7)	71.1 (64.3 - 76.8)	78.4 (71.9 - 83.6)	64.3 (62.0 - 66.5)
	80-99	64.5 (55.9 - 71.8)	52.1 (45.5 - 58.2)	54.5 (43.2 - 64.6)	39.9 (27.9 - 51.7)	62.7 (42.3 - 77.7)	70.1 (52.4 - 82.3)	42.5 (37.4 - 47.4)
Distant	All ages	18.2 (16.0 - 20.6)	16.2 (14.5 - 18.1)	23.1 (20.1 - 26.3)	11.3 (8.6 - 14.4)	9.9 (6.8 - 13.7)	20.6 (17.6 - 23.8)	11.2 (9.9 - 12.7)
	15-49	29.4 (22.2 - 36.8)	29.3 (23.3 - 35.6)	32.1 (20.5 - 44.2)	14.8 (6.5 - 26.4)	18.0 (8.0 - 31.3)	35.3 (23.9 - 46.9)	21.1 (15.1 - 27.8)
	50-64	24.6 (20.4 - 29.0)	19.6 (16.6 - 22.8)	27.6 (22.6 - 32.8)	13.6 (9.2 - 18.8)	16.2 (9.6 - 24.4)	28.5 (22.9 - 34.3)	14.6 (11.9 - 17.6)
	65-79	15.9 (12.5 - 19.6)	15.0 (12.2 - 18.1)	19.6 (15.8 - 23.7)	10.3 (6.4 - 15.2)	6.0 (3.0 - 10.4)	19.1 (14.4 - 24.2)	9.4 (7.6 - 11.5)
	80-99	4.7 (1.9 - 9.4)	5.7 (3.1 - 9.4)	11.1 (5.2 - 19.5)	4.9 (1.0 - 13.8)	*	4.1 (1.2 - 9.8)	3.1 (1.7 - 5.3)
Missing	All ages	64.7 (61.3 - 67.8)	55.1 (51.8 - 58.2)	72.6 (67.4 - 77.1)	58.5 (51.7 - 64.6)	67.3 (63.8 - 70.6)	60.9 (57.0 - 64.5)	56.4 (55.4 - 57.3)
	15-49	85.9 (79.3 - 90.5)	83.4 (76.8 - 88.2)	85.6 (66.1 - 94.3)	85.7 (69.8 - 93.6)	81.1 (72.4 - 87.3)	79.9 (67.9 - 87.9)	68.2 (65.1 - 71.1)
	50-64	75.7 (70.7 - 79.9)	75.5 (70.6 - 79.7)	81.1 (73.4 - 86.7)	67.4 (55.3 - 76.9)	72.5 (67.3 - 77.0)	77.3 (71.6 - 82.1)	67.5 (65.8 - 69.1)
	65-79	62.9 (57.2 - 68.0)	50.4 (44.6 - 56.0)	67.2 (60.2 - 73.2)	63.1 (51.6 - 72.7)	68.5 (63.3 - 73.2)	66.0 (60.3 - 71.0)	55.6 (54.1 - 57.1)
	80-99	33.4 (25.2 - 41.7)	22.9 (17.9 - 28.2)	56.9 (41.6 - 69.6)	16.1 (6.7 - 29.0)	46.1 (34.4 - 56.9)	16.5 (9.7 - 24.8)	27.2 (25.4 - 29.0)

Abbreviation: NS = net survival, CI = confidence interval  
All ages=Age-standardised

<sup>1</sup>Australia includes Victoria (Data on both TNM and SEER) and New South Wales (Data on SEER only)

<sup>2</sup>Canada includes Alberta, British Columbia, New Brunswick, Manitoba, Newfoundland, Nova Scotia, Ontario, Prince Edward Island, and Saskatchewan; Ireland (2010-2013); United Kingdom includes England, Northern Ireland, Scotland, and Wales

<sup>3</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>4</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 10.** Median age, number of cases and proportions (%) of colon and rectal cancers by imputed stage for individual registries in United Kingdom, 2010-2014

Country	Colon cancer								Rectal cancer							
	TNM stage				Mapped SEER				TNM stage				Mapped SEER			
	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)
England	All	73 (64-81)	117,865		All	73 (64-81)	117,865		All	70 (61-78)	46,152		All	70 (61-78)	46,152	
	I	71 (63-78)	9510 (14.7)	14.2	Localised	72 (64-80)	26008 (38.4)	36.9	I	70 (62-77)	6289 (24.4)	23.9	Localised	70 (62-78)	11216 (41.6)	40.8
	II	74 (65-81)	19043 (29.5)	28.9	Regional	73 (63-80)	23776 (35.1)	34.4	II	72 (63-79)	5001 (19.4)	19.4	Regional	68 (60-77)	10528 (39.0)	38.8
	III	72 (63-80)	17408 (26.9)	26.6	Distant	73 (63-81)	17408 (26.9)	28.7	III	68 (59-77)	9067 (35.2)	35.4	Distant	70 (60-78)	5244 (19.4)	20.4
	IV	73 (63-81)	18684 (28.9)	30.3	Missing	74 (65-82)	50048 (42.5)		IV	70 (60-78)	5407 (21.0)	21.3	Missing	71 (62-80)	19164 (41.5)	
	Missing	74 (65-82)	53220 (45.2)		Missing	74 (65-82)	50048 (42.5)		Missing	71 (62-79)	10388 (44.2)		Missing	71 (62-80)	19164 (41.5)	
Northern Ireland	All	72 (63-80)	4,301		All	72 (63-80)	4,301		All	68 (60-76)	1,524		All	68 (60-76)	1,524	
	I	70 (63-77)	632 (17.1)	17.2	Localised	71 (64-78)	1464 (39.2)	39.6	I	69 (61-76)	289 (21.2)	22.5	Localised	69 (61-76)	596 (43.0)	44.6
	II	72 (64-79)	1154 (31.2)	30.4	Regional	70 (62-78)	1335 (35.7)	33.5	II	70 (61-76)	319 (23.4)	23.3	Regional	66 (58-74)	556 (40.1)	38.3
	III	69 (61-77)	989 (26.7)	25.5	Distant	70 (61-78)	938 (25.1)	26.9	III	66 (57-74)	521 (38.2)	36.7	Distant	68 (61-75)	235 (16.9)	17.0
	IV	70 (61-78)	926 (25.0)	26.9	Missing	81 (73-87)	564 (13.1)		IV	68 (61-75)	235 (17.2)	17.5	Missing	79 (68-86)	137 (9.0)	
	Missing	81 (72-87)	600 (14.0)		Missing	81 (73-87)	564 (13.1)		Missing	79 (68-86)	160 (10.5)		Missing	79 (68-86)	137 (9.0)	
Scotland	All	72 (64-80)	13,894		All	72 (64-80)	13,894		All	69 (61-78)	4,932		All	69 (61-78)	4,932	
	I	69 (62-75)	2078 (17.1)	15.5	Localised	71 (63-78)	5593 (45.7)	42.0	I	68 (60-75)	1170 (29.7)	28.3	Localised	68 (60-75)	2151 (53.2)	49.9
	II	72 (64-79)	3658 (30.2)	28.9	Regional	70 (61-78)	3544 (29.0)	29.0	II	68 (60-75)	946 (24.0)	22.2	Regional	67 (59-74)	1087 (26.9)	25.5
	III	70 (61-77)	3319 (27.4)	26.2	Distant	73 (63-81)	3092 (25.3)	29.0	III	67 (59-74)	1016 (25.7)	23.5	Distant	69 (60-79)	808 (20.0)	24.6
	IV	73 (63-80)	3076 (25.4)	29.4	Missing	81 (74-87)	1665 (12.0)		IV	70 (60-79)	814 (20.6)	26.0	Missing	78 (67-84)	886 (18.0)	
	Missing	82 (74-87)	1763 (12.7)		Missing	81 (74-87)	1665 (12.0)		Missing	77 (67-84)	986 (20.0)		Missing	78 (67-84)	886 (18.0)	
Wales	All	73 (65-81)	8,163		All	73 (65-81)	8,163		All	70 (62-78)	3,316		All	70 (62-78)	3,316	
	I	70 (65-78)	974 (14.5)	13.7	Localised	73 (65-80)	2917 (43.3)	39.6	I	69 (61-76)	552 (19.6)	18.0	Localised	70 (62-77)	1145 (40.7)	37.1
	II	74 (66-81)	1943 (28.9)	25.9	Regional	72 (64-80)	2211 (32.8)	32.4	II	71 (63-78)	593 (21.1)	19.2	Regional	69 (60-76)	1172 (41.6)	43.7
	III	72 (64-80)	2211 (32.8)	32.3	Distant	73 (64-80)	1603 (23.8)	28.1	III	69 (60-76)	1172 (41.6)	43.8	Distant	70 (63-78)	498 (17.7)	19.1
	IV	73 (64-80)	1603 (23.8)	28.1	Missing	77 (66-84)	1432 (17.5)		IV	70 (63-78)	498 (17.7)	19.0	Missing	75 (65-85)	501 (15.1)	
	Missing	77 (66-84)	1432 (17.5)		Missing	77 (66-84)	1432 (17.5)		Missing	75 (65-85)	501 (15.1)		Missing	75 (65-85)	501 (15.1)	

**Supplementary Table 11A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in United Kingdom for colon cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	77.1 (76.8 - 77.4)	80.0 (78.4 - 81.5)	77.5 (76.6 - 78.4)	74.8 (73.5 - 75.9)
	15-49	86.7 (85.7 - 87.6)	85.6 (79.8 - 89.8)	86.4 (83.1 - 89.1)	88.0 (83.5 - 91.4)
	50-64	83.7 (83.1 - 84.3)	85.6 (82.5 - 88.2)	84.9 (83.2 - 86.4)	81.5 (79.0 - 83.7)
	65-79	78.0 (77.5 - 78.4)	80.8 (78.5 - 83.0)	77.6 (76.2 - 78.9)	73.4 (71.5 - 75.1)
	80-99	57.6 (56.9 - 58.2)	63.7 (59.5 - 67.5)	58.0 (55.8 - 60.1)	56.9 (54.1 - 59.5)
<b>TNM Stage<sup>p</sup></b>					
Stage I	All ages	97.5 (97.0 - 98.0)	98.9 (96.6 - 100.0)	99.0 (97.8 - 100.0)	97.1 (95.6 - 98.7)
	15-49	99.7 (99.2 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	99.1 (98.5 - 99.7)	99.7 (97.5 - 100.0)	100.0 (99.1 - 100.0)	100.0 (98.4 - 100.0)
	65-79	98.5 (97.9 - 99.0)	99.5 (97.2 - 100.0)	99.6 (98.1 - 100.0)	97.0 (94.5 - 99.4)
	80-99	91.0 (88.9 - 93.1)	93.9 (81.4 - 100.0)	95.4 (90.3 - 100.0)	89.8 (82.4 - 97.1)
Stage II	All ages	93.4 (92.9 - 93.8)	95.9 (94.1 - 97.7)	96.0 (95.0 - 97.1)	89.6 (87.8 - 91.3)
	15-49	98.7 (97.9 - 99.4)	100.0 (100.0 - 100.0)	99.5 (98.0 - 100.0)	97.1 (92.8 - 100.0)
	50-64	97.3 (96.7 - 97.9)	97.0 (94.1 - 99.9)	97.9 (96.5 - 99.4)	95.3 (92.5 - 98.1)
	65-79	94.2 (93.6 - 94.8)	96.9 (94.5 - 99.3)	96.0 (94.4 - 97.5)	88.5 (85.6 - 91.4)
	80-99	81.3 (79.8 - 82.8)	89.0 (82.5 - 95.4)	90.4 (86.7 - 94.0)	75.2 (69.9 - 80.4)
Stage III	All ages	87.4 (86.9 - 88.0)	90.0 (87.3 - 92.7)	87.4 (85.8 - 88.9)	84.8 (82.9 - 86.7)
	15-49	96.3 (95.3 - 97.4)	98.4 (95.1 - 100.0)	93.7 (89.9 - 97.6)	95.0 (90.6 - 99.4)
	50-64	94.1 (93.3 - 94.8)	96.7 (93.8 - 99.6)	91.6 (89.3 - 93.9)	91.4 (88.4 - 94.4)
	65-79	88.1 (87.3 - 88.9)	88.8 (84.8 - 92.8)	88.1 (85.9 - 90.4)	84.5 (81.6 - 87.4)
	80-99	68.5 (66.9 - 70.0)	74.7 (65.2 - 84.2)	73.6 (68.5 - 78.7)	67.0 (61.8 - 72.3)
Stage IV	All ages	42.4 (41.6 - 43.2)	40.1 (36.2 - 44.0)	37.6 (35.6 - 39.7)	38.4 (35.8 - 41.1)
	15-49	61.0 (58.5 - 63.6)	42.3 (28.2 - 56.3)	56.1 (47.6 - 64.6)	64.2 (52.5 - 75.8)
	50-64	53.1 (51.6 - 54.6)	55.2 (47.9 - 62.5)	49.5 (45.0 - 54.1)	47.1 (41.1 - 53.2)
	65-79	39.0 (37.9 - 40.1)	37.9 (32.6 - 43.3)	31.3 (28.5 - 34.0)	33.5 (30.0 - 37.1)
	80-99	19.5 (18.5 - 20.4)	17.1 (11.5 - 22.7)	17.1 (14.2 - 20.0)	16.2 (12.6 - 19.8)
<b>Mapped SEER stage<sup>p</sup></b>					
Localised	All ages	96.2 (95.8 - 96.5)	97.7 (96.3 - 99.1)	97.3 (96.6 - 98.1)	92.0 (90.8 - 93.3)
	15-49	99.2 (98.6 - 99.8)	100.0 (100.0 - 100.0)	99.7 (98.8 - 100.0)	98.4 (95.9 - 100.0)
	50-64	98.8 (98.4 - 99.2)	98.5 (96.6 - 100.0)	98.9 (98.0 - 99.8)	96.9 (94.9 - 98.9)
	65-79	97.1 (96.6 - 97.5)	98.4 (96.6 - 100.0)	97.6 (96.5 - 98.7)	91.9 (89.9 - 93.9)
	80-99	87.4 (86.3 - 88.5)	92.2 (85.4 - 99.0)	92.2 (89.0 - 95.3)	78.6 (74.1 - 83.0)
Regional	All ages	85.9 (85.5 - 86.4)	90.8 (88.8 - 92.8)	87.1 (85.6 - 88.5)	84.9 (83.0 - 86.8)
	15-49	95.8 (94.7 - 96.9)	97.9 (94.7 - 100.0)	94.2 (90.5 - 97.8)	94.7 (90.1 - 99.3)
	50-64	93.4 (92.7 - 94.1)	96.2 (93.4 - 98.9)	91.7 (89.5 - 93.9)	91.5 (88.7 - 94.4)
	65-79	86.5 (85.8 - 87.3)	90.2 (86.9 - 93.5)	87.7 (85.6 - 89.8)	84.6 (81.6 - 87.5)
	80-99	65.3 (64.1 - 66.5)	77.6 (70.1 - 85.1)	72.3 (67.8 - 76.9)	67.4 (62.1 - 72.7)
Distant	All ages	41.4 (40.6 - 42.1)	40.4 (36.4 - 44.3)	37.7 (35.7 - 39.8)	38.3 (35.5 - 41.0)
	15-49	57.2 (54.4 - 60.0)	40.2 (25.6 - 54.8)	57.0 (48.6 - 65.4)	63.3 (51.3 - 75.3)
	50-64	52.2 (50.7 - 53.7)	56.3 (49.0 - 63.6)	49.5 (45.0 - 54.0)	46.7 (41.0 - 52.5)
	65-79	38.6 (37.5 - 39.8)	39.0 (33.7 - 44.4)	31.4 (28.6 - 34.2)	33.5 (30.0 - 37.1)
	80-99	18.5 (17.5 - 19.5)	17.1 (11.7 - 22.4)	16.9 (14.1 - 19.6)	16.2 (12.3 - 20.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>p</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 11B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in United Kingdom for colon cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	59.0 (58.6 - 59.4)	62.5 (60.5 - 64.6)	59.7 (58.5 - 60.9)	56.8 (55.2 - 58.3)
	15-49	67.0 (65.7 - 68.3)	71.3 (64.8 - 76.9)	64.3 (59.9 - 68.4)	70.2 (64.5 - 75.2)
	50-64	63.9 (63.1 - 64.6)	67.5 (63.7 - 71.0)	66.2 (64.1 - 68.2)	62.2 (59.3 - 65.0)
	65-79	61.0 (60.4 - 61.6)	61.1 (58.0 - 64.0)	60.9 (59.2 - 62.5)	54.9 (52.7 - 57.1)
	80-99	41.1 (40.2 - 42.0)	49.7 (43.7 - 55.4)	41.1 (38.2 - 44.0)	41.5 (37.8 - 45.2)
<b>TNM Stage<sup>‡</sup></b>					
Stage I	All ages	95.9 (94.6 - 97.2)	98.8 (94.6 - 100.0)	96.8 (94.1 - 99.6)	93.6 (90.2 - 97.0)
	15-49	95.9 (94.1 - 97.8)	100.0 (100.0 - 100.0)	98.8 (94.5 - 100.0)	99.8 (95.0 - 100.0)
	50-64	95.6 (94.0 - 97.3)	95.9 (90.6 - 100.0)	98.5 (96.1 - 100.0)	99.6 (96.1 - 100.0)
	65-79	97.9 (96.5 - 99.2)	96.0 (90.3 - 100.0)	100.0 (97.1 - 100.0)	89.9 (85.0 - 94.8)
	80-99	92.8 (88.3 - 97.3)	100.0 (86.0 - 100.0)	85.2 (73.2 - 97.3)	86.2 (71.2 - 100.0)
Stage II	All ages	86.3 (85.6 - 87.1)	88.8 (85.5 - 92.0)	86.3 (84.4 - 88.3)	77.9 (75.3 - 80.6)
	15-49	91.5 (89.1 - 93.9)	92.3 (85.6 - 98.9)	89.6 (83.5 - 95.7)	93.0 (86.4 - 99.7)
	50-64	89.3 (88.0 - 90.6)	91.5 (86.7 - 96.3)	90.4 (87.6 - 93.2)	81.6 (76.8 - 86.4)
	65-79	87.5 (86.6 - 88.5)	87.9 (83.1 - 92.8)	85.1 (82.2 - 87.9)	75.5 (71.4 - 79.6)
	80-99	75.5 (73.1 - 78.0)	84.9 (72.8 - 97.1)	79.8 (72.8 - 86.8)	63.9 (56.1 - 71.8)
Stage III	All ages	64.1 (63.1 - 65.2)	66.6 (62.7 - 70.6)	61.7 (59.4 - 63.9)	61.4 (58.6 - 64.1)
	15-49	79.3 (76.8 - 81.9)	88.2 (80.5 - 96.0)	69.4 (62.4 - 76.3)	78.5 (70.2 - 86.8)
	50-64	72.7 (71.0 - 74.3)	77.9 (71.9 - 83.9)	68.0 (64.3 - 71.7)	69.1 (64.4 - 73.7)
	65-79	64.4 (63.0 - 65.7)	60.3 (54.1 - 66.5)	61.9 (58.5 - 65.2)	59.5 (55.5 - 63.4)
	80-99	38.6 (36.6 - 40.6)	43.8 (32.7 - 55.0)	43.4 (36.9 - 49.9)	39.8 (32.4 - 47.2)
Stage IV	All ages	9.4 (8.9 - 9.9)	9.3 (7.0 - 11.6)	7.5 (6.3 - 8.7)	8.4 (6.3 - 10.5)
	15-49	20.8 (18.5 - 23.1)	11.1 (2.5 - 19.8)	15.6 (9.0 - 22.2)	19.4 (8.7 - 30.1)
	50-64	13.1 (11.9 - 14.3)	14.5 (9.1 - 19.8)	11.0 (8.2 - 13.7)	10.0 (5.6 - 14.5)
	65-79	7.3 (6.6 - 8.0)	6.2 (3.6 - 8.9)	4.7 (3.4 - 6.0)	6.2 (3.5 - 8.9)
	80-99	1.4 (1.1 - 1.8)	0.7 (0.0 - 1.8)	1.4 (0.4 - 2.4)	1.4 (0.0 - 3.4)
<b>Mapped SEER stage<sup>‡</sup></b>					
Localised	All ages	93.1 (92.5 - 93.7)	95.2 (92.3 - 98.0)	90.4 (88.7 - 92.1)	83.1 (80.9 - 85.3)
	15-49	93.8 (92.4 - 95.2)	97.5 (93.7 - 100.0)	92.7 (88.3 - 97.0)	95.5 (91.0 - 99.9)
	50-64	94.0 (93.1 - 94.8)	94.7 (90.9 - 98.5)	93.7 (91.7 - 95.6)	87.6 (84.2 - 91.0)
	65-79	95.0 (94.0 - 95.9)	92.6 (88.6 - 96.6)	90.6 (88.5 - 92.8)	87.6 (84.2 - 91.0)
	80-99	87.6 (85.4 - 89.7)	100.0 (88.7 - 100.0)	81.6 (74.9 - 88.4)	69.5 (62.5 - 76.5)
Regional	All ages	62.6 (61.8 - 63.4)	69.4 (66.0 - 72.8)	61.8 (59.6 - 64.1)	61.3 (58.5 - 64.1)
	15-49	76.3 (74.0 - 78.7)	87.3 (80.3 - 94.2)	70.1 (63.3 - 76.9)	77.6 (69.1 - 86.1)
	50-64	72.0 (70.7 - 73.3)	79.9 (74.7 - 85.1)	68.0 (64.4 - 71.7)	69.4 (64.8 - 74.0)
	65-79	63.0 (61.7 - 64.3)	65.0 (59.7 - 70.2)	62.1 (58.9 - 65.3)	59.5 (55.3 - 63.6)
	80-99	36.2 (34.5 - 37.9)	48.7 (38.1 - 59.2)	42.7 (36.2 - 49.2)	40.0 (32.9 - 47.1)
Distant	All ages	8.5 (7.8 - 9.1)	8.5 (6.3 - 10.7)	7.5 (6.3 - 8.8)	8.1 (6.0 - 10.1)
	15-49	15.2 (12.2 - 18.1)	6.3 (0.0 - 14.0)	16.2 (9.4 - 22.9)	17.1 (7.0 - 27.2)
	50-64	12.3 (11.2 - 13.4)	14.5 (9.1 - 19.8)	11.1 (8.4 - 13.9)	9.7 (5.5 - 13.8)
	65-79	7.0 (6.3 - 7.8)	6.7 (4.0 - 9.4)	4.6 (3.4 - 5.9)	6.4 (3.9 - 9.0)
	80-99	1.2 (0.8 - 1.7)	0.7 (0.0 - 1.8)	1.4 (0.5 - 2.4)	1.3 (0.0 - 3.2)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 12A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in United Kingdom for rectal cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	84.9 (84.4 - 85.3)	84.7 (82.1 - 86.9)	84.6 (83.2 - 85.9)	84.9 (83.3 - 86.4)
	15-49	90.8 (89.5 - 92.0)	85.7 (76.5 - 91.5)	89.3 (84.6 - 92.7)	92.3 (86.3 - 95.7)
	50-64	90.8 (90.2 - 91.4)	93.6 (90.0 - 95.9)	91.2 (89.1 - 92.9)	90.2 (87.4 - 92.4)
	65-79	85.0 (84.3 - 85.6)	82.6 (78.6 - 85.9)	84.7 (82.6 - 86.6)	84.7 (82.2 - 86.9)
	80-99	69.7 (68.4 - 70.9)	71.8 (63.1 - 78.7)	69.4 (65.0 - 73.3)	70.2 (65.0 - 74.7)
<b>TNM Stage<sup>‡</sup></b>					
Stage I	All ages	97.6 (97.0 - 98.2)	98.1 (94.0 - 100.0)	100.0 (98.7 - 100.0)	97.3 (94.8 - 99.8)
	15-49	99.0 (97.8 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	99.0 (98.4 - 99.6)	100.0 (98.9 - 100.0)	100.0 (98.9 - 100.0)	99.0 (96.7 - 100.0)
	65-79	98.1 (97.4 - 98.9)	96.7 (91.7 - 100.0)	99.6 (97.6 - 100.0)	97.6 (93.9 - 100.0)
	80-99	92.5 (89.9 - 95.0)	96.1 (80.3 - 100.0)	100.0 (95.3 - 100.0)	89.6 (77.9 - 100.0)
Stage II	All ages	92.5 (91.7 - 93.3)	95.6 (92.5 - 98.8)	97.7 (95.8 - 99.6)	88.8 (85.5 - 92.1)
	15-49	98.0 (96.1 - 99.9)	100.0 (100.0 - 100.0)	99.7 (96.9 - 100.0)	100.0 (100.0 - 100.0)
	50-64	97.4 (96.3 - 98.5)	100.0 (98.5 - 100.0)	98.6 (96.7 - 100.0)	92.3 (87.0 - 97.6)
	65-79	92.0 (90.8 - 93.3)	95.2 (90.0 - 100.0)	97.7 (95.0 - 100.0)	86.0 (80.7 - 91.4)
	80-99	80.7 (78.1 - 83.3)	83.2 (67.8 - 98.6)	94.8 (86.9 - 100.0)	81.3 (71.9 - 90.7)
Stage III	All ages	90.9 (90.2 - 91.7)	88.7 (84.7 - 92.7)	92.9 (90.4 - 95.4)	92.7 (90.7 - 94.7)
	15-49	95.6 (94.2 - 97.1)	90.8 (82.2 - 99.4)	96.5 (92.3 - 100.0)	97.5 (93.7 - 100.0)
	50-64	96.0 (95.2 - 96.7)	97.0 (93.6 - 100.0)	97.9 (95.5 - 100.0)	96.4 (94.0 - 98.8)
	65-79	91.0 (90.0 - 92.1)	86.2 (80.5 - 92.0)	91.6 (87.9 - 95.3)	93.5 (90.8 - 96.2)
	80-99	77.6 (75.0 - 80.1)	78.5 (59.0 - 98.1)	84.8 (75.6 - 93.9)	80.4 (72.5 - 88.3)
Stage IV	All ages	54.0 (52.7 - 55.3)	44.5 (37.1 - 52.0)	49.1 (45.4 - 52.8)	50.7 (45.6 - 55.7)
	15-49	69.8 (65.4 - 74.2)	49.3 (25.6 - 73.0)	61.7 (49.3 - 74.2)	61.1 (41.3 - 81.0)
	50-64	65.4 (63.1 - 67.7)	62.0 (47.1 - 76.8)	62.1 (55.3 - 68.9)	60.2 (50.4 - 69.9)
	65-79	51.0 (49.0 - 53.0)	42.9 (32.1 - 53.7)	43.1 (37.4 - 48.9)	50.3 (43.1 - 57.6)
	80-99	31.1 (28.6 - 33.6)	17.1 (2.9 - 31.4)	32.1 (24.7 - 39.5)	26.6 (17.4 - 35.8)
<b>Mapped SEER stage<sup>‡</sup></b>					
Localised	All ages	95.9 (95.4 - 96.3)	97.2 (94.9 - 99.6)	98.6 (97.4 - 99.7)	93.1 (91.0 - 95.2)
	15-49	98.7 (97.7 - 99.7)	100.0 (100.0 - 100.0)	100.0 (98.7 - 100.0)	100.0 (100.0 - 100.0)
	50-64	98.5 (98.0 - 99.1)	99.9 (98.4 - 100.0)	99.3 (98.2 - 100.0)	95.6 (92.7 - 98.6)
	65-79	96.2 (95.6 - 96.8)	96.1 (92.6 - 99.6)	98.2 (96.4 - 100.0)	92.4 (89.3 - 95.5)
	80-99	88.1 (86.3 - 89.9)	93.2 (83.0 - 100.0)	96.9 (91.5 - 100.0)	84.8 (77.0 - 92.7)
Regional	All ages	89.9 (89.2 - 90.5)	87.9 (84.1 - 91.7)	91.3 (88.9 - 93.7)	92.7 (90.7 - 94.8)
	15-49	95.4 (93.9 - 96.9)	89.7 (80.9 - 98.4)	96.5 (92.3 - 100.0)	97.3 (93.2 - 100.0)
	50-64	95.5 (94.7 - 96.4)	97.0 (93.8 - 100.0)	97.7 (95.4 - 100.0)	96.3 (93.8 - 98.7)
	65-79	89.9 (88.9 - 90.8)	86.7 (81.2 - 92.2)	89.6 (86.1 - 93.1)	93.5 (90.6 - 96.3)
	80-99	75.3 (73.1 - 77.5)	71.8 (55.2 - 88.4)	80.7 (71.6 - 89.8)	81.3 (73.6 - 89.0)
Distant	All ages	53.2 (51.9 - 54.6)	44.7 (37.1 - 52.3)	49.2 (45.5 - 52.9)	50.5 (45.3 - 55.7)
	15-49	69.4 (64.9 - 73.9)	49.8 (25.6 - 74.1)	63.3 (51.1 - 75.5)	61.5 (41.4 - 81.5)
	50-64	64.8 (62.3 - 67.3)	62.1 (47.0 - 77.1)	61.7 (54.9 - 68.6)	60.5 (50.7 - 70.4)
	65-79	50.1 (48.1 - 52.2)	42.8 (32.2 - 53.5)	43.1 (37.3 - 48.8)	50.0 (42.8 - 57.1)
	80-99	30.0 (27.5 - 32.5)	16.8 (3.6 - 29.9)	33.2 (26.2 - 40.2)	25.9 (16.1 - 35.7)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>‡</sup> Model2: Age spline allowing separate models for each stage category



**Supplementary Table 12B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in United Kingdom for rectal cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	62.1 (61.5 - 62.8)	60.7 (57.2 - 64.0)	62.8 (60.9 - 64.7)	60.8 (58.4 - 63.1)
	15-49	68.7 (66.7 - 70.6)	65.8 (55.2 - 74.5)	69.5 (63.3 - 75.0)	72.6 (64.2 - 79.3)
	50-64	70.3 (69.3 - 71.3)	68.7 (63.2 - 73.6)	70.2 (67.2 - 73.0)	66.7 (62.7 - 70.3)
	65-79	63.6 (62.6 - 64.5)	57.9 (52.8 - 62.7)	65.1 (62.2 - 67.8)	61.8 (58.3 - 65.1)
	80-99	38.9 (37.2 - 40.6)	50.8 (38.5 - 61.9)	40.5 (35.0 - 46.0)	37.8 (30.7 - 44.8)
<b>TNM Stage<sup>¶</sup></b>					
Stage I	All ages	92.0 (90.7 - 93.3)	94.2 (87.1 - 100.0)	95.0 (91.6 - 98.4)	93.6 (88.7 - 98.5)
	15-49	94.3 (90.9 - 97.6)	100.0 (100.0 - 100.0)	94.2 (87.1 - 100.0)	95.3 (83.7 - 100.0)
	50-64	94.4 (93.0 - 95.8)	94.4 (86.9 - 100.0)	94.6 (91.1 - 98.1)	89.5 (83.3 - 95.7)
	65-79	93.7 (92.0 - 95.4)	92.9 (83.6 - 100.0)	95.0 (90.4 - 99.6)	96.4 (90.2 - 100.0)
	80-99	81.4 (75.7 - 87.1)	95.4 (64.7 - 100.0)	96.0 (78.1 - 100.0)	94.0 (69.2 - 100.0)
Stage II	All ages	74.8 (73.3 - 76.3)	79.1 (70.2 - 88.1)	81.5 (77.2 - 85.9)	69.0 (64.1 - 74.0)
	15-49	83.6 (79.4 - 87.8)	88.1 (71.1 - 100.0)	87.8 (77.9 - 97.7)	91.6 (78.4 - 100.0)
	50-64	84.0 (81.8 - 86.3)	84.6 (74.9 - 94.2)	82.3 (77.1 - 87.5)	77.7 (69.8 - 85.7)
	65-79	75.8 (73.6 - 78.0)	81.0 (71.1 - 91.0)	84.0 (78.1 - 90.0)	69.6 (62.2 - 77.1)
	80-99	48.2 (43.4 - 53.1)	57.8 (33.2 - 82.4)	70.7 (54.0 - 87.4)	32.5 (19.9 - 45.2)
Stage III	All ages	65.4 (64.0 - 66.7)	58.0 (51.7 - 64.3)	62.5 (58.5 - 66.5)	64.3 (60.2 - 68.4)
	15-49	76.5 (73.0 - 79.9)	66.4 (52.6 - 80.3)	74.4 (64.4 - 84.5)	74.8 (64.0 - 85.6)
	50-64	77.0 (75.3 - 78.7)	73.2 (65.4 - 81.1)	70.4 (64.8 - 76.1)	69.6 (63.4 - 75.7)
	65-79	65.5 (63.5 - 67.5)	51.4 (43.0 - 59.9)	63.9 (57.6 - 70.2)	64.4 (58.6 - 70.3)
	80-99	34.6 (30.8 - 38.3)	44.9 (19.8 - 70.0)	37.3 (25.5 - 49.1)	44.0 (28.9 - 59.0)
Stage IV	All ages	9.8 (8.7 - 11.0)	4.3 (1.4 - 7.1)	7.7 (5.3 - 10.1)	6.8 (3.7 - 9.9)
	15-49	18.6 (13.2 - 23.9)	11.0 (0.0 - 28.4)	20.3 (8.3 - 32.2)	17.4 (0.0 - 39.9)
	50-64	14.9 (12.5 - 17.3)	1.8 (0.0 - 5.1)	13.1 (6.7 - 19.4)	10.4 (4.0 - 16.9)
	65-79	7.6 (6.4 - 8.9)	6.7 (2.0 - 11.3)	3.9 (1.5 - 6.2)	5.5 (1.6 - 9.4)
	80-99	1.3 (0.6 - 2.0)	*	1.3 (0.0 - 2.8)	*
<b>Mapped SEER stage<sup>¶</sup></b>					
Localised	All ages	85.7 (84.5 - 86.9)	86.7 (81.9 - 91.6)	88.2 (85.6 - 90.8)	80.3 (76.9 - 83.8)
	15-49	91.2 (88.5 - 94.0)	94.2 (85.1 - 100.0)	91.0 (84.6 - 97.3)	92.1 (82.2 - 100.0)
	50-64	91.2 (89.7 - 92.6)	88.8 (82.7 - 94.8)	89.0 (86.0 - 92.0)	84.0 (79.0 - 89.1)
	65-79	87.3 (85.9 - 88.6)	87.0 (80.0 - 94.1)	89.4 (85.9 - 92.9)	84.0 (79.0 - 89.1)
	80-99	67.1 (62.9 - 71.3)	77.2 (58.0 - 96.4)	81.9 (69.4 - 94.4)	56.0 (43.2 - 68.9)
Regional	All ages	62.6 (61.1 - 64.0)	58.3 (52.6 - 64.1)	62.0 (58.2 - 65.8)	64.3 (60.3 - 68.3)
	15-49	74.0 (70.5 - 77.5)	66.9 (53.7 - 80.2)	74.7 (64.9 - 84.4)	74.9 (64.1 - 85.6)
	50-64	74.4 (72.5 - 76.2)	72.3 (64.7 - 79.9)	70.1 (64.7 - 75.5)	69.8 (63.6 - 76.0)
	65-79	62.6 (60.6 - 64.6)	53.3 (45.4 - 61.2)	63.0 (57.2 - 68.7)	64.7 (58.9 - 70.5)
	80-99	31.8 (27.5 - 36.1)	41.8 (20.1 - 63.5)	36.9 (23.7 - 50.1)	42.6 (28.6 - 56.5)
Distant	All ages	9.7 (8.5 - 10.9)	4.4 (1.4 - 7.4)	7.4 (5.1 - 9.7)	6.6 (3.8 - 9.3)
	15-49	18.7 (14.7 - 22.8)	*	21.0 (8.0 - 34.1)	16.8 (0.0 - 36.3)
	50-64	14.9 (12.2 - 17.5)	2.2 (0.0 - 6.3)	13.1 (7.0 - 19.3)	9.7 (3.4 - 15.9)
	65-79	7.4 (5.9 - 8.8)	6.4 (1.8 - 11.0)	3.6 (1.3 - 5.9)	5.5 (2.0 - 9.1)
	80-99	1.2 (0.4 - 2.0)	*	1.5 (0.0 - 3.3)	*

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 13A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in United Kingdom for colon cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	77.0 (76.7 - 77.3)	80.0 (78.4 - 81.5)	77.5 (76.6 - 78.4)	74.8 (73.5 - 75.9)
	15-49	86.6 (85.6 - 87.5)	85.6 (79.8 - 89.8)	86.4 (83.1 - 89.1)	88.0 (83.5 - 91.4)
	50-64	83.6 (83.1 - 84.2)	85.6 (82.5 - 88.2)	84.9 (83.2 - 86.4)	81.5 (79.0 - 83.7)
	65-79	77.9 (77.4 - 78.4)	80.7 (78.3 - 82.8)	77.5 (76.2 - 78.8)	73.4 (71.5 - 75.1)
	80-99	57.4 (56.7 - 58.1)	63.7 (59.5 - 67.5)	57.9 (55.7 - 60.0)	56.9 (54.1 - 59.5)
<b>TNM Stage<sup>§</sup></b>					
Stage I	All ages	98.2 (97.7 - 98.6)	99.5 (91.3 - 100.0)	99.6 (94.9 - 100.0)	97.4 (95.3 - 98.6)
	15-49	99.8 (98.2 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	99.3 (98.5 - 99.7)	99.6 (29.3 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	65-79	98.9 (98.2 - 99.3)	99.4 (82.5 - 100.0)	100.0 (100.0 - 100.0)	97.2 (93.6 - 98.8)
	80-99	93.5 (91.5 - 95.0)	98.9 (0.0 - 100.0)	98.3 (75.3 - 99.9)	90.6 (80.3 - 95.6)
Stage II	All ages	94.6 (94.2 - 94.9)	97.3 (95.3 - 98.5)	97.4 (96.4 - 98.2)	90.7 (88.8 - 92.3)
	15-49	98.7 (97.6 - 99.3)	100.0 (100.0 - 100.0)	99.4 (91.3 - 100.0)	96.4 (85.5 - 99.1)
	50-64	97.6 (96.9 - 98.1)	97.0 (92.2 - 98.9)	98.1 (96.0 - 99.1)	95.5 (91.5 - 97.6)
	65-79	94.8 (94.2 - 95.4)	97.7 (94.1 - 99.1)	97.0 (95.3 - 98.1)	89.6 (86.5 - 92.0)
	80-99	86.0 (84.7 - 87.2)	95.0 (85.8 - 98.3)	96.1 (91.6 - 98.2)	79.6 (74.0 - 84.2)
Stage III	All ages	88.7 (88.2 - 89.2)	91.7 (89.1 - 93.7)	89.5 (88.0 - 90.8)	86.0 (84.0 - 87.7)
	15-49	96.4 (95.0 - 97.4)	98.4 (86.7 - 99.8)	93.1 (87.2 - 96.3)	92.7 (83.1 - 97.0)
	50-64	94.2 (93.3 - 95.0)	96.7 (92.2 - 98.7)	91.8 (89.2 - 93.8)	91.4 (87.9 - 93.9)
	65-79	89.0 (88.2 - 89.8)	89.8 (85.3 - 92.9)	89.9 (87.6 - 91.7)	85.8 (82.8 - 88.4)
	80-99	72.7 (71.0 - 74.2)	82.4 (72.8 - 88.9)	81.7 (76.8 - 85.7)	72.1 (66.6 - 76.9)
Stage IV	All ages	43.7 (42.9 - 44.5)	40.6 (36.5 - 44.7)	38.9 (36.7 - 41.1)	39.0 (36.1 - 42.0)
	15-49	58.5 (55.5 - 61.4)	38.5 (24.7 - 52.2)	54.7 (45.8 - 62.8)	58.9 (45.0 - 70.4)
	50-64	53.9 (52.3 - 55.5)	55.4 (47.7 - 62.5)	50.8 (46.1 - 55.2)	46.9 (40.9 - 52.8)
	65-79	41.5 (40.3 - 42.6)	40.2 (34.5 - 45.9)	34.2 (31.2 - 37.3)	35.6 (31.8 - 39.4)
	80-99	20.8 (19.6 - 22.0)	18.3 (12.2 - 25.3)	17.7 (14.7 - 20.9)	18.6 (14.5 - 23.2)
Missing	All ages	72.2 (71.5 - 72.8)	69.0 (62.0 - 75.0)	57.2 (52.9 - 61.3)	65.8 (62.0 - 69.2)
	15-49	88.3 (86.5 - 89.9)	95.3 (70.2 - 99.4)	98.1 (85.2 - 99.8)	95.3 (85.8 - 98.5)
	50-64	82.4 (81.0 - 83.7)	85.4 (59.4 - 95.3)	65.8 (52.4 - 76.3)	80.5 (72.1 - 86.6)
	65-79	71.7 (70.6 - 72.8)	56.5 (46.5 - 65.4)	43.2 (37.8 - 48.5)	58.9 (52.6 - 64.6)
	80-99	44.9 (43.7 - 46.1)	38.7 (31.1 - 46.2)	37.2 (33.3 - 41.2)	37.7 (32.1 - 43.2)
<b>Mapped SEER stage<sup>¶</sup></b>					
Localised	All ages	97.2 (96.9 - 97.5)	98.7 (96.9 - 99.4)	98.2 (97.4 - 98.8)	93.0 (91.6 - 94.1)
	15-49	99.5 (98.9 - 99.8)	100.0 (100.0 - 100.0)	99.7 (92.2 - 100.0)	97.6 (90.0 - 99.5)
	50-64	99.1 (98.6 - 99.4)	98.5 (94.6 - 99.6)	98.9 (97.5 - 99.5)	97.2 (94.6 - 98.6)
	65-79	97.6 (97.2 - 98.0)	98.8 (95.5 - 99.7)	98.3 (97.1 - 99.1)	92.4 (90.2 - 94.1)
	80-99	91.5 (90.4 - 92.4)	97.2 (85.5 - 99.5)	95.5 (91.8 - 97.5)	82.4 (77.8 - 86.2)
Regional	All ages	87.9 (87.4 - 88.3)	92.4 (90.2 - 94.1)	88.9 (87.4 - 90.2)	86.0 (84.0 - 87.7)
	15-49	96.5 (95.3 - 97.4)	97.6 (89.9 - 99.5)	97.6 (89.9 - 99.5)	92.7 (83.1 - 97.0)
	50-64	93.8 (93.1 - 94.5)	96.1 (92.1 - 98.1)	91.9 (89.4 - 93.8)	91.4 (87.9 - 93.9)
	65-79	87.8 (87.1 - 88.5)	91.0 (87.3 - 93.7)	89.5 (87.3 - 91.3)	85.8 (82.8 - 88.4)
	80-99	71.3 (70.0 - 72.7)	85.0 (77.1 - 90.4)	79.1 (74.4 - 83.0)	72.1 (66.6 - 76.9)
Distant	All ages	43.7 (42.9 - 44.5)	41.2 (37.1 - 45.2)	38.8 (36.7 - 41.0)	39.0 (36.1 - 42.0)
	15-49	58.6 (55.5 - 61.5)	38.5 (24.7 - 52.2)	55.7 (46.9 - 63.6)	58.9 (45.0 - 70.4)
	50-64	54.0 (52.4 - 55.6)	56.4 (48.8 - 63.4)	50.6 (45.9 - 55.0)	46.9 (40.9 - 52.8)
	65-79	41.6 (40.4 - 42.8)	41.1 (35.4 - 46.7)	33.9 (30.8 - 36.9)	35.6 (31.8 - 39.4)
	80-99	20.7 (19.5 - 21.9)	17.6 (11.6 - 24.6)	17.5 (14.6 - 20.7)	18.6 (14.5 - 23.2)
Missing	All ages	68.8 (68.1 - 69.6)	69.8 (62.7 - 75.9)	57.6 (53.1 - 61.8)	65.8 (62.0 - 69.2)
	15-49	84.3 (82.0 - 86.3)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	95.3 (85.8 - 98.5)
	50-64	78.8 (77.2 - 80.3)	86.6 (53.4 - 96.8)	66.0 (51.8 - 76.9)	80.5 (72.1 - 86.6)
	65-79	68.4 (67.2 - 69.5)	55.3 (44.8 - 64.6)	43.0 (37.3 - 48.5)	58.9 (52.6 - 64.6)
	80-99	41.9 (40.6 - 43.1)	37.4 (29.9 - 45.0)	37.8 (33.6 - 41.9)	37.7 (32.1 - 43.2)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 13B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in United Kingdom for colon cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>†</sup>	All ages	59.0 (58.6 - 59.4)	62.5 (60.5 - 64.6)	59.7 (58.5 - 60.9)	56.8 (55.2 - 58.3)
	15-49	67.0 (65.7 - 68.3)	71.3 (64.8 - 76.9)	64.3 (59.9 - 68.4)	70.2 (64.5 - 75.2)
	50-64	63.9 (63.1 - 64.6)	67.5 (63.7 - 71.0)	66.2 (64.1 - 68.2)	62.2 (59.3 - 65.0)
	65-79	61.0 (60.4 - 61.6)	61.1 (58.0 - 64.0)	60.9 (59.2 - 62.5)	54.9 (52.7 - 57.1)
	80-99	41.1 (40.2 - 42.0)	49.7 (43.7 - 55.4)	41.1 (38.2 - 44.0)	41.5 (37.8 - 45.2)
<b>TNM Stage<sup>‡</sup></b>					
Stage I	All ages	95.4 (93.5 - 96.7)	100.0 (100.0 - 100.0)	98.9 (88.1 - 99.9)	93.7 (89.1 - 96.4)
	15-49	96.0 (89.4 - 98.5)	100.0 (100.0 - 100.0)	98.8 (60.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	97.9 (95.2 - 99.1)	95.6 (84.6 - 98.8)	98.9 (91.7 - 99.9)	99.7 (0.0 - 100.0)
	65-79	96.5 (93.5 - 98.1)	96.5 (82.8 - 99.3)	100.0 (100.0 - 100.0)	89.6 (83.2 - 93.6)
	80-99	87.8 (79.5 - 92.9)	100.0 (100.0 - 100.0)	93.7 (62.9 - 99.1)	87.7 (60.9 - 96.6)
Stage II	All ages	87.3 (86.0 - 88.4)	91.6 (87.5 - 94.4)	89.3 (87.1 - 91.1)	79.8 (76.8 - 82.4)
	15-49	90.4 (86.2 - 93.3)	89.1 (75.9 - 95.3)	89.0 (80.6 - 93.9)	92.0 (80.0 - 97.0)
	50-64	89.1 (86.9 - 90.8)	90.9 (84.5 - 94.8)	90.9 (87.6 - 93.3)	81.1 (75.5 - 85.5)
	65-79	87.3 (85.5 - 88.9)	89.0 (83.1 - 92.9)	87.1 (84.1 - 89.6)	76.3 (71.8 - 80.1)
	80-99	81.9 (77.5 - 85.5)	100.0 (100.0 - 100.0)	92.5 (80.5 - 97.2)	73.2 (63.4 - 80.8)
Stage III	All ages	64.9 (63.5 - 66.3)	68.3 (64.1 - 72.1)	65.0 (62.6 - 67.3)	62.1 (59.1 - 64.9)
	15-49	76.1 (71.5 - 80.1)	83.0 (68.7 - 91.1)	67.2 (59.3 - 73.9)	71.4 (58.7 - 80.8)
	50-64	71.4 (68.9 - 73.8)	77.0 (70.2 - 82.4)	68.5 (64.6 - 72.0)	68.7 (63.6 - 73.3)
	65-79	65.5 (63.5 - 67.5)	61.6 (55.2 - 67.5)	65.0 (61.5 - 68.2)	60.2 (55.9 - 64.2)
	80-99	44.1 (40.1 - 48.0)	58.4 (43.8 - 70.4)	56.4 (48.2 - 63.8)	47.8 (39.2 - 55.9)
Stage IV	All ages	11.2 (10.3 - 12.1)	8.1 (6.1 - 10.3)	8.1 (6.9 - 9.5)	7.9 (5.9 - 10.2)
	15-49	13.3 (9.5 - 17.7)	3.1 (0.6 - 9.7)	14.6 (9.1 - 21.3)	12.6 (5.4 - 22.9)
	50-64	15.5 (13.7 - 17.4)	14.4 (9.5 - 20.2)	11.6 (8.9 - 14.6)	9.6 (5.8 - 14.4)
	65-79	10.2 (9.0 - 11.5)	7.3 (4.7 - 10.6)	5.6 (4.2 - 7.3)	6.8 (4.4 - 9.9)
	80-99	4.0 (2.8 - 5.5)	1.0 (0.1 - 3.8)	2.5 (1.2 - 4.5)	2.3 (0.5 - 7.0)
Missing	All ages	66.0 (62.4 - 69.4)	55.8 (48.9 - 62.2)	33.0 (28.9 - 37.3)	49.5 (45.5 - 53.3)
	15-49	70.3 (68.3 - 72.2)	95.7 (67.7 - 99.5)	89.5 (68.8 - 96.7)	84.3 (74.0 - 90.8)
	50-64	63.3 (62.0 - 64.6)	79.3 (54.2 - 91.6)	42.9 (32.0 - 53.4)	64.7 (55.5 - 72.4)
	65-79	56.4 (55.4 - 57.4)	36.7 (27.6 - 45.8)	18.5 (14.7 - 22.7)	45.6 (39.4 - 51.6)
	80-99	30.4 (29.3 - 31.5)	10.9 (6.4 - 16.8)	8.2 (5.7 - 11.4)	15.2 (10.8 - 20.4)
<b>Mapped SEER stage<sup>‡</sup></b>					
Localised	All ages	93.8 (92.8 - 94.7)	97.5 (92.4 - 99.2)	92.8 (91.1 - 94.2)	84.4 (82.1 - 86.5)
	15-49	94.4 (90.8 - 96.6)	95.8 (84.3 - 98.9)	92.3 (86.3 - 95.8)	94.7 (85.7 - 98.1)
	50-64	95.3 (93.8 - 96.4)	94.2 (88.7 - 97.1)	94.0 (91.7 - 95.6)	87.4 (83.4 - 90.6)
	65-79	94.3 (92.8 - 95.5)	93.6 (88.2 - 96.6)	92.6 (90.2 - 94.4)	81.1 (77.6 - 84.1)
	80-99	89.4 (85.1 - 92.5)	100.0 (100.0 - 100.0)	91.2 (82.4 - 95.7)	77.1 (68.4 - 83.7)
Regional	All ages	65.2 (64.0 - 66.4)	71.6 (67.9 - 75.0)	64.8 (62.4 - 67.0)	62.1 (59.1 - 64.9)
	15-49	77.0 (73.2 - 80.3)	82.8 (71.4 - 90.0)	67.5 (59.6 - 74.2)	71.4 (58.7 - 80.8)
	50-64	72.3 (70.2 - 74.3)	79.2 (73.2 - 83.9)	68.5 (64.7 - 72.0)	68.7 (63.6 - 73.3)
	65-79	64.7 (63.0 - 66.4)	66.5 (60.9 - 71.5)	64.8 (61.4 - 68.0)	60.2 (55.9 - 64.2)
	80-99	45.3 (42.0 - 48.6)	62.8 (50.1 - 73.1)	54.9 (47.0 - 62.1)	47.8 (39.2 - 55.9)
Distant	All ages	11.0 (10.1 - 12.0)	8.3 (6.3 - 10.6)	8.1 (6.9 - 9.5)	7.9 (5.9 - 10.2)
	15-49	12.2 (8.3 - 16.8)	3.1 (0.6 - 9.7)	15.2 (9.5 - 22.1)	12.6 (5.4 - 22.9)
	50-64	15.3 (13.4 - 17.2)	14.3 (9.5 - 20.1)	11.6 (8.9 - 14.7)	9.6 (5.8 - 14.4)
	65-79	10.2 (8.9 - 11.5)	7.5 (4.9 - 10.9)	5.5 (4.2 - 7.2)	6.8 (4.4 - 9.9)
	80-99	3.9 (2.7 - 5.5)	1.1 (0.2 - 4.3)	2.4 (1.2 - 4.5)	2.3 (0.5 - 7.0)
Missing	All ages	52.2 (51.5 - 52.9)	57.2 (50.0 - 63.8)	33.3 (29.0 - 37.7)	49.5 (45.5 - 53.3)
	15-49	65.7 (63.5 - 67.9)	100.0 (100.0 - 100.0)	91.2 (68.7 - 97.8)	84.4 (74.0 - 90.8)
	50-64	59.5 (58.1 - 60.9)	79.5 (50.2 - 92.7)	43.7 (32.3 - 54.5)	64.7 (55.5 - 72.4)
	65-79	53.2 (52.1 - 54.2)	34.1 (25.0 - 43.3)	18.4 (14.5 - 22.6)	45.6 (39.4 - 51.6)
	80-99	27.9 (26.9 - 29.0)	10.2 (5.8 - 16.0)	8.4 (5.8 - 11.6)	15.2 (10.8 - 20.4)

Abbreviation: NS = net survival, CI = confidence interval  
All ages=Age-standardised

<sup>†</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 14A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in United Kingdom for rectal cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>†</sup>	All ages	84.9 (84.4 - 85.3)	84.7 (82.1 - 86.9)	84.6 (83.2 - 85.9)	84.9 (83.3 - 86.4)
	15-49	90.8 (89.5 - 92.0)	85.7 (76.5 - 91.5)	89.3 (84.6 - 92.7)	92.3 (86.3 - 95.7)
	50-64	90.8 (90.2 - 91.4)	93.6 (90.0 - 95.9)	91.2 (89.1 - 92.9)	90.2 (87.4 - 92.4)
	65-79	85.0 (84.3 - 85.6)	82.6 (78.6 - 85.9)	84.7 (82.6 - 86.6)	84.7 (82.2 - 86.9)
	80-99	69.7 (68.4 - 70.9)	71.8 (63.1 - 78.7)	69.4 (65.0 - 73.3)	70.2 (65.0 - 74.7)
<b>TNM Stage<sup>‡</sup></b>					
Stage I	All ages	98.2 (97.5 - 98.6)	99.8 (0.0 - 100.0)	100.0 (100.0 - 100.0)	97.9 (94.4 - 99.2)
	15-49	98.8 (96.3 - 99.6)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	99.1 (98.2 - 99.5)	100.0 (100.0 - 100.0)	100.0 (0.0 - 100.0)	98.9 (89.7 - 99.9)
	65-79	98.4 (97.5 - 99.0)	97.2 (86.6 - 99.4)	100.0 (100.0 - 100.0)	97.8 (91.1 - 99.5)
	80-99	95.1 (92.4 - 96.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	93.4 (70.3 - 98.7)
Stage II	All ages	93.5 (92.6 - 94.2)	97.2 (92.5 - 98.9)	99.0 (95.6 - 99.8)	89.7 (85.9 - 92.5)
	15-49	98.4 (95.4 - 99.5)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	97.5 (96.2 - 98.3)	100.0 (100.0 - 100.0)	98.6 (94.6 - 99.6)	91.9 (84.3 - 95.9)
	65-79	92.3 (90.9 - 93.5)	96.0 (87.2 - 98.8)	98.4 (93.2 - 99.6)	86.5 (80.0 - 90.9)
	80-99	84.9 (82.0 - 87.4)	89.2 (63.4 - 97.2)	100.0 (100.0 - 100.0)	86.3 (73.4 - 93.2)
Stage III	All ages	91.9 (91.2 - 92.5)	90.9 (86.7 - 93.8)	94.3 (91.5 - 96.1)	93.8 (91.6 - 95.4)
	15-49	95.4 (93.5 - 96.7)	91.0 (77.4 - 96.6)	96.3 (88.1 - 98.9)	97.2 (88.2 - 99.4)
	50-64	96.0 (95.1 - 96.7)	97.7 (92.0 - 99.3)	98.2 (94.3 - 99.4)	96.2 (92.7 - 98.0)
	65-79	91.5 (90.4 - 92.5)	87.7 (80.9 - 92.2)	93.8 (89.6 - 96.3)	94.0 (90.7 - 96.2)
	80-99	82.2 (79.6 - 84.5)	88.5 (61.2 - 97.0)	87.5 (74.6 - 94.1)	86.2 (77.1 - 91.9)
Stage IV	All ages	55.4 (53.9 - 56.8)	46.8 (38.6 - 54.5)	50.4 (46.3 - 54.3)	52.4 (46.9 - 57.5)
	15-49	69.2 (64.1 - 73.7)	49.6 (24.5 - 70.5)	63.1 (48.8 - 74.4)	63.0 (39.5 - 79.4)
	50-64	66.5 (63.9 - 69.0)	63.8 (47.1 - 76.5)	61.4 (53.8 - 68.1)	59.6 (48.9 - 68.7)
	65-79	53.1 (50.9 - 55.2)	46.4 (34.8 - 57.2)	46.6 (40.1 - 52.8)	52.0 (44.3 - 59.1)
	80-99	32.0 (29.1 - 35.0)	16.2 (4.8 - 33.6)	32.3 (24.1 - 40.7)	30.7 (20.0 - 42.0)
Missing	All ages	81.1 (80.1 - 82.0)	62.0 (49.0 - 72.6)	75.8 (71.6 - 79.4)	77.3 (71.2 - 82.2)
	15-49	91.8 (89.0 - 93.9)	83.7 (27.7 - 97.6)	87.2 (64.9 - 95.8)	88.7 (41.7 - 98.4)
	50-64	89.7 (88.2 - 91.1)	76.3 (42.2 - 91.9)	91.3 (82.9 - 95.6)	94.6 (76.8 - 98.8)
	65-79	80.7 (79.2 - 82.2)	55.5 (37.2 - 70.5)	66.2 (59.1 - 72.3)	75.9 (64.6 - 84.0)
	80-99	58.9 (56.5 - 61.1)	49.9 (33.6 - 64.3)	60.7 (53.6 - 67.1)	44.3 (33.2 - 54.9)
<b>Mapped SEER stage<sup>‡</sup></b>					
Localised	All ages	96.8 (96.3 - 97.2)	98.3 (94.9 - 99.5)	99.7 (94.9 - 100.0)	93.6 (91.4 - 95.3)
	15-49	98.8 (97.2 - 99.5)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	98.7 (98.0 - 99.1)	99.9 (0.0 - 100.0)	99.3 (96.8 - 99.9)	95.5 (91.3 - 97.7)
	65-79	96.7 (96.0 - 97.3)	96.5 (91.0 - 98.7)	99.3 (94.9 - 99.9)	92.2 (88.4 - 94.8)
	80-99	92.0 (90.1 - 93.5)	98.4 (16.6 - 100.0)	100.0 (100.0 - 100.0)	89.0 (79.3 - 94.3)
Regional	All ages	91.2 (90.5 - 91.8)	90.0 (85.9 - 93.0)	93.0 (90.4 - 94.9)	93.8 (91.6 - 95.4)
	15-49	95.3 (93.6 - 96.6)	89.1 (75.4 - 95.4)	96.2 (88.1 - 98.9)	97.2 (88.2 - 99.4)
	50-64	95.8 (94.9 - 96.5)	97.1 (91.8 - 99.0)	98.3 (94.6 - 99.5)	96.2 (92.7 - 98.0)
	65-79	90.7 (89.7 - 91.7)	87.5 (80.9 - 91.9)	91.5 (87.5 - 94.3)	94.0 (90.7 - 96.2)
	80-99	80.1 (77.7 - 82.3)	84.9 (62.1 - 94.5)	85.2 (73.9 - 91.9)	86.2 (77.1 - 91.9)
Distant	All ages	55.5 (54.0 - 56.9)	46.8 (38.7 - 54.6)	50.9 (46.7 - 54.9)	52.4 (46.9 - 57.5)
	15-49	69.2 (64.1 - 73.8)	49.6 (24.5 - 70.5)	65.0 (51.2 - 75.9)	63.0 (39.5 - 79.4)
	50-64	66.6 (63.9 - 69.1)	62.9 (46.0 - 75.8)	61.2 (53.6 - 67.9)	59.6 (48.9 - 68.7)
	65-79	53.1 (50.9 - 55.3)	47.1 (35.5 - 57.8)	46.5 (39.9 - 52.8)	52.0 (44.3 - 59.1)
	80-99	32.3 (29.3 - 35.3)	16.2 (4.8 - 33.6)	34.3 (26.0 - 42.8)	30.7 (20.0 - 42.0)
Missing	All ages	78.9 (77.9 - 79.9)	68.2 (55.2 - 78.2)	71.9 (66.9 - 76.3)	77.3 (71.2 - 82.2)
	15-49	90.8 (87.7 - 93.2)	100.0 (100.0 - 100.0)	86.0 (62.1 - 95.4)	88.7 (41.7 - 98.4)
	50-64	88.1 (86.3 - 89.7)	86.4 (31.8 - 98.1)	89.5 (79.8 - 94.7)	94.6 (76.8 - 98.8)
	65-79	78.0 (76.2 - 79.6)	53.5 (33.7 - 69.8)	61.5 (53.5 - 68.6)	75.9 (64.6 - 84.0)
	80-99	56.1 (53.7 - 58.5)	48.6 (31.9 - 63.4)	55.3 (47.6 - 62.3)	44.3 (33.2 - 54.9)

Abbreviation: NS = net survival, CI = confidence interval  
All ages=Age-standardised

<sup>†</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 14B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in United Kingdom for rectal cancer patients diagnosed during 2010-2014

Stage		England	Northern Ireland	Scotland	Wales
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	62.1 (61.5 - 62.8)	60.7 (57.2 - 64.0)	62.8 (60.9 - 64.7)	60.8 (58.4 - 63.1)
	15-49	68.7 (66.7 - 70.6)	65.8 (55.2 - 74.5)	69.5 (63.3 - 75.0)	72.6 (64.2 - 79.3)
	50-64	70.3 (69.3 - 71.3)	68.7 (63.2 - 73.6)	70.2 (67.2 - 73.0)	66.7 (62.7 - 70.3)
	65-79	63.6 (62.6 - 64.5)	57.9 (52.8 - 62.7)	65.1 (62.2 - 67.8)	61.8 (58.3 - 65.1)
	80-99	38.9 (37.2 - 40.6)	50.8 (38.5 - 61.9)	40.5 (35.0 - 46.0)	37.8 (30.7 - 44.8)
<b>TNM Stage<sup>¶</sup></b>					
Stage I	All ages	93.2 (90.9 - 94.9)	96.7 (79.2 - 99.5)	97.7 (90.9 - 99.5)	95.6 (87.6 - 98.5)
	15-49	98.0 (94.0 - 99.3)	100.0 (100.0 - 100.0)	94.8 (80.5 - 98.7)	95.1 (56.5 - 99.6)
	50-64	95.1 (92.0 - 97.0)	94.2 (79.5 - 98.5)	95.0 (90.1 - 97.5)	88.9 (80.5 - 93.9)
	65-79	93.4 (90.3 - 95.6)	93.4 (75.2 - 98.4)	97.0 (88.1 - 99.3)	96.6 (81.1 - 99.4)
	80-99	85.8 (74.2 - 92.5)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
Stage II	All ages	76.9 (74.0 - 79.4)	81.0 (69.1 - 88.7)	86.0 (81.1 - 89.7)	72.0 (66.5 - 76.8)
	15-49	82.7 (73.9 - 88.7)	86.6 (52.8 - 96.8)	88.8 (74.7 - 95.3)	94.3 (55.2 - 99.4)
	50-64	84.5 (80.5 - 87.8)	85.6 (73.9 - 92.3)	82.4 (76.2 - 87.1)	79.6 (70.1 - 86.4)
	65-79	77.9 (74.1 - 81.2)	84.1 (71.6 - 91.4)	87.4 (80.6 - 91.9)	71.1 (62.6 - 77.9)
	80-99	55.5 (43.4 - 66.0)	60.3 (29.7 - 81.0)	90.9 (42.5 - 98.9)	39.7 (23.9 - 55.0)
Stage III	All ages	66.8 (64.6 - 68.9)	60.4 (54.1 - 66.1)	67.2 (62.9 - 71.2)	66.1 (61.5 - 70.2)
	15-49	76.1 (70.3 - 81.0)	64.6 (48.3 - 76.9)	74.4 (62.5 - 83.0)	72.6 (58.4 - 82.6)
	50-64	78.1 (74.9 - 80.9)	73.6 (64.9 - 80.5)	70.3 (64.2 - 75.6)	69.4 (62.3 - 75.4)
	65-79	65.7 (62.3 - 69.0)	54.1 (45.4 - 62.0)	69.6 (63.3 - 75.1)	64.4 (57.7 - 70.2)
	80-99	40.8 (33.9 - 47.5)	58.2 (26.0 - 80.4)	51.5 (34.6 - 66.1)	57.3 (37.8 - 72.7)
Stage IV	All ages	12.8 (10.9 - 14.8)	4.9 (2.4 - 8.8)	8.8 (6.3 - 11.7)	7.7 (4.9 - 11.2)
	15-49	21.0 (13.6 - 29.5)	*	22.6 (11.3 - 36.2)	22.1 (6.0 - 44.3)
	50-64	16.6 (13.0 - 20.5)	1.9 (0.2 - 8.4)	13.7 (7.9 - 21.2)	11.2 (5.4 - 19.3)
	65-79	11.1 (8.3 - 14.3)	7.9 (3.5 - 14.4)	4.8 (2.4 - 8.5)	6.3 (3.2 - 10.9)
	80-99	3.7 (1.8 - 6.9)	*	2.5 (0.7 - 6.7)	*
Missing	All ages	77.3 (71.2 - 82.2)	40.7 (29.6 - 51.5)	46.3 (41.7 - 50.8)	52.0 (45.8 - 57.8)
	15-49	69.6 (66.6 - 72.4)	84.6 (25.5 - 98.0)	65.0 (44.1 - 79.7)	73.6 (45.7 - 88.7)
	50-64	69.5 (67.9 - 71.1)	58.2 (29.7 - 78.6)	66.0 (56.3 - 74.1)	63.6 (50.8 - 73.9)
	65-79	59.4 (57.9 - 60.9)	24.1 (12.3 - 38.0)	35.1 (28.8 - 41.4)	54.0 (43.3 - 63.5)
	80-99	30.3 (28.4 - 32.3)	20.5 (7.2 - 38.5)	18.0 (12.3 - 24.7)	11.5 (5.9 - 19.1)
<b>Mapped SEER stage<sup>¶</sup></b>					
Localised	All ages	87.7 (86.0 - 89.3)	88.5 (82.7 - 92.5)	92.0 (89.0 - 94.2)	82.7 (78.8 - 86.0)
	15-49	95.6 (92.7 - 97.4)	93.7 (72.4 - 98.7)	91.8 (83.4 - 96.1)	94.4 (72.9 - 99.0)
	50-64	92.3 (90.0 - 94.0)	88.3 (80.2 - 93.2)	89.4 (85.8 - 92.2)	84.3 (78.3 - 88.8)
	65-79	88.3 (86.0 - 90.3)	88.0 (79.0 - 93.3)	92.5 (88.2 - 95.3)	83.6 (77.8 - 88.0)
	80-99	72.7 (64.6 - 79.2)	86.1 (48.2 - 97.0)	98.3 (0.0 - 100.0)	66.3 (49.2 - 78.9)
Regional	All ages	65.2 (63.2 - 67.1)	60.2 (54.2 - 65.7)	66.4 (62.1 - 70.2)	66.1 (61.5 - 70.2)
	15-49	72.6 (66.7 - 77.6)	64.7 (49.1 - 76.6)	74.5 (62.6 - 83.1)	72.6 (58.4 - 82.6)
	50-64	76.5 (73.5 - 79.1)	72.3 (63.8 - 79.2)	70.5 (64.4 - 75.8)	69.4 (62.3 - 75.4)
	65-79	64.4 (61.3 - 67.4)	54.1 (45.7 - 61.8)	67.8 (61.7 - 73.2)	64.4 (57.7 - 70.2)
	80-99	39.7 (33.9 - 45.5)	59.3 (29.2 - 80.1)	50.1 (33.9 - 64.2)	57.3 (37.8 - 72.7)
Distant	All ages	12.6 (10.7 - 14.7)	5.0 (2.4 - 9.0)	8.7 (6.2 - 11.7)	7.7 (4.9 - 11.2)
	15-49	19.2 (11.3 - 28.6)	*	23.9 (12.1 - 37.8)	22.1 (6.0 - 44.3)
	50-64	17.0 (13.4 - 21.0)	2.1 (0.2 - 9.2)	13.5 (7.7 - 20.8)	11.2 (5.4 - 19.3)
	65-79	10.8 (7.9 - 14.1)	7.8 (3.5 - 14.3)	4.8 (2.4 - 8.5)	6.3 (3.2 - 10.9)
	80-99	3.7 (1.8 - 6.8)	*	2.8 (0.7 - 7.3)	*
Missing	All ages	57.2 (56.2 - 58.2)	49.8 (37.4 - 60.9)	43.7 (38.9 - 48.4)	52.0 (45.8 - 57.8)
	15-49	68.1 (64.9 - 71.1)	100.0 (100.0 - 100.0)	63.6 (42.4 - 78.8)	73.6 (45.7 - 88.7)
	50-64	67.6 (65.8 - 69.2)	71.3 (33.4 - 90.1)	64.1 (54.1 - 72.5)	63.6 (50.8 - 73.9)
	65-79	57.0 (55.4 - 58.6)	27.8 (13.8 - 43.6)	31.9 (25.7 - 38.3)	54.0 (43.3 - 63.5)
	80-99	28.8 (26.9 - 30.8)	16.4 (4.9 - 33.9)	15.5 (10.4 - 21.6)	11.5 (5.9 - 19.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 15.** Median age, number of cases and proportions (%) of colon and rectal cancers by imputed stage for individual registries in Canada, 2010-2014

Country	Colon cancer								Rectal cancer							
	TNM stage				Mapped SEER				TNM stage				Mapped SEER			
	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)
Alberta	All	69 (59-79)	6,624		All	69 (59-79)	6,624		All	65 (56-75)	2,516		All	65 (56-75)	2,516	
	I	68 (58-77)	1405 (22.0)	23.6	Localised	69 (60-78)	2268 (35.2)	36.7	I	65 (56-75)	585 (24.7)	25.2	Localised	65 (56-75)	828 (33.6)	34.1
	II	72 (62-80)	1698 (26.6)	25.6	Regional	69 (59-79)	2483 (38.5)	37.6	II	67 (57-76)	438 (18.5)	17.1	Regional	64 (56-74)	1128 (45.8)	45.5
	III	68 (58-78)	1700 (26.6)	26.5	Distant	69 (59-79)	1696 (26.3)	25.6	III	64 (55-73)	871 (36.8)	37.5	Distant	64 (55-76)	509 (20.6)	20.5
	IV	68 (59-79)	1590 (24.9)	24.3	Missing	84 (77-89)	177 (2.7)		IV	64 (55-76)	476 (20.1)	20.2	Missing	82 (66-88)	51 (2.0)	
British Columbia	All	72 (62-80)	10,787		All	72 (62-80)	10,787		All	67 (58-76)	3,882		All	67 (58-76)	3,882	
	I	71 (63-79)	1889 (19.6)	21.3	Localised	71 (63-80)	3538 (35.4)	36.5	I	69 (60-77)	591 (18.6)	19.3	Localised	68 (60-77)	1260 (35.0)	35.9
	II	73 (64-81)	2730 (28.3)	27.5	Regional	72 (62-80)	4207 (42.0)	40.6	II	68 (59-77)	804 (25.3)	24.1	Regional	66 (58-75)	1672 (46.5)	44.8
	III	71 (62-79)	2843 (29.4)	28.3	Distant	69 (60-79)	2260 (22.6)	23.0	III	65 (57-74)	1152 (36.2)	36.4	Distant	65 (56-75)	663 (18.4)	19.4
	IV	69 (60-79)	2192 (22.7)	22.9	Missing	81 (69-88)	782 (7.2)		IV	65 (57-75)	633 (19.9)	20.3	Missing	75 (61-84)	287 (7.4)	
Manitoba	All	72 (61-81)	2,818		All	72 (61-81)	2,818		All	66 (57-76)	1,148		All	66 (57-76)	1,148	
	I	71 (61-81)	583 (21.3)	22.4	Localised	72 (62-82)	980 (35.7)	36.6	I	68 (56-77)	282 (25.7)	24.5	Localised	68 (57-78)	355 (31.6)	29.1
	II	74 (64-82)	813 (29.7)	29.2	Regional	71 (62-79)	1153 (42.0)	41.3	II	69 (61-80)	178 (16.2)	13.3	Regional	65 (56-75)	530 (47.2)	47.9
	III	70 (60-78)	755 (27.6)	27.0	Distant	70 (60-80)	614 (22.4)	22.1	III	64 (56-74)	419 (38.2)	40.2	Distant	64 (56-73)	239 (21.3)	23.0
	IV	70 (60-80)	586 (21.4)	21.3	Missing	86 (81-90)	71 (2.5)		IV	64 (56-73)	219 (19.9)	22.0	Missing	78 (65-84)	24 (2.1)	
New Brunswick	All	71 (62-80)	2,029		All	71 (62-80)	2,029		All	67 (58-75)	708		All	67 (58-75)	708	
	I	70 (62-78)	382 (20.3)	20.5	Localised	71 (63-79)	799 (42.2)	42.7	I	69 (60-76)	164 (25.9)	25.5	Localised	68 (60-77)	275 (42.5)	42.1
	II	72 (64-80)	540 (28.6)	27.6	Regional	70 (62-79)	621 (32.8)	31.3	II	67 (59-75)	167 (26.3)	26.3	Regional	64 (56-73)	240 (37.1)	36.8
	III	70 (62-78)	495 (26.3)	26.2	Distant	70 (61-79)	475 (25.1)	26.0	III	64 (55-72)	174 (27.4)	27.2	Distant	66 (60-74)	132 (20.4)	21.1
	IV	70 (61-79)	468 (24.8)	25.7	Missing	77 (63-86)	134 (6.6)		IV	66 (61-74)	129 (20.3)	20.9	Missing	68 (54-83)	61 (8.6)	
Newfoundland and Labrador	All	69 (61-77)	1,980		All	69 (61-77)	1,980		All	65 (57-74)	607		All	65 (57-74)	607	
	I	70 (61-78)	403 (21.4)	22.2	Localised	71 (62-77)	809 (41.9)	41.6	I	67 (59-76)	127 (22.4)	22.3	Localised	67 (59-75)	206 (35.0)	34.3
	II	71 (63-77)	526 (28.0)	27.1	Regional	68 (61-76)	695 (36.0)	35.5	II	69 (61-75)	113 (19.9)	19.9	Regional	64 (56-73)	253 (43.0)	41.4
	III	68 (60-75)	546 (29.0)	28.3	Distant	68 (61-76)	429 (22.2)	22.9	III	62 (55-70)	205 (36.1)	36.2	Distant	66 (57-73)	129 (21.9)	24.3
	IV	68 (60-76)	406 (21.6)	22.3	Missing	80 (71-86)	47 (2.4)		IV	66 (56-73)	123 (21.7)	21.6	Missing	71 (58-86)	19 (3.1)	
Nova Scotia	All	71 (63-80)	2,852		All	71 (63-80)	2,852		All	67 (58-75)	1,042		All	67 (58-75)	1,042	
	I	70 (63-78)	629 (22.7)	23.0	Localised	71 (63-79)	840 (30.1)	32.2	I	69 (62-77)	255 (25.6)	24.4	Localised	68 (61-77)	319 (31.2)	30.9
	II	72 (64-80)	803 (28.9)	28.1	Regional	72 (63-80)	1290 (46.2)	43.8	II	67 (60-74)	203 (20.3)	17.0	Regional	66 (58-74)	501 (49.0)	47.5
	III	72 (63-79)	723 (26.0)	26.2	Distant	69 (60-79)	664 (23.8)	24.0	III	66 (57-74)	351 (35.2)	38.0	Distant	66 (56-74)	202 (19.8)	21.5
	IV	69 (60-79)	622 (22.4)	22.7	Missing	86 (82-91)	58 (2.0)		IV	66 (56-74)	189 (18.9)	20.7	Missing	75 (68-86)	20 (1.9)	
Ontario	All	71 (61-80)	28,553		All	71 (61-80)	28,553		All	66 (56-76)	9,294		All	66 (56-76)	9,294	
	I	70 (61-79)	5783 (22.2)	21.9	Localised	72 (62-80)	9906 (37.9)	38.2	I	67 (58-76)	2373 (28.9)	28.0	Localised	67 (57-76)	3277 (39.0)	38.2
	II	74 (64-81)	7493 (28.8)	28.7	Regional	71 (61-80)	10511 (40.2)	40.3	II	68 (58-77)	1616 (19.7)	19.3	Regional	65 (56-74)	3583 (42.7)	42.9
	III	70 (61-80)	7380 (28.4)	28.9	Distant	70 (60-80)	5705 (21.8)	21.6	III	65 (55-74)	2834 (34.5)	35.1	Distant	66 (56-77)	1539 (18.3)	18.9
	IV	70 (60-79)	5346 (20.6)	20.5	Missing	73 (61-83)	2431 (8.5)		IV	66 (56-77)	1394 (17.0)	17.6	Missing	66 (55-80)	895 (9.6)	
Prince Edward Island	All	72 (63-79)	451		All	72 (63-79)	451		All	66 (59-75)	121		All	66 (59-75)	121	
	I	68 (62-76)	98 (22.4)	22.5	Localised	70 (63-77)	178 (40.5)	39.3	I	67 (57-77)	34 (29.6)	30.7	Localised	67 (62-75)	54 (45.4)	45.4
	II	72 (63-79)	123 (28.1)	27.4	Regional	72 (63-81)	148 (33.6)	35.7	II	68 (63-75)	29 (25.2)	25.0	Regional	66 (58-71)	43 (36.1)	37.3
	III	72 (63-81)	109 (24.9)	26.4	Distant	72 (63-79)	114 (25.9)	25.0	III	64 (54-71)	32 (27.8)	27.2	Distant	67 (48-77)	22 (18.5)	17.4
	IV	72 (64-79)	108 (24.7)	23.7	Missing	84 (80-89)	11 (2.4)		IV	70 (49-79)	20 (17.4)	17.1	Missing	86 (86-86)	2 (1.7)	
Saskatchewan	All	71 (61-80)	2,655		All	71 (61-80)	2,655		All	67 (58-76)	953		All	67 (58-76)	953	
	I	69 (61-78)	670 (26.2)	28.0	Localised	71 (62-77)	1117 (43.3)	45.7	I	68 (61-77)	226 (25.2)	25.3	Localised	68 (59-76)	343 (37.0)	35.9
	II	73 (64-81)	688 (26.9)	27.0	Regional	71 (61-80)	826 (32.0)	30.0	II	70 (60-78)	194 (21.6)	20.6	Regional	66 (58-76)	383 (41.3)	40.7
	III	70 (60-79)	610 (23.8)	22.3	Distant	69 (60-80)	635 (24.6)	24.2	III	66 (56-75)	289 (32.2)	32.2	Distant	64 (56-77)	202 (21.8)	23.4
	IV	70 (60-80)	594 (23.2)	22.8	Missing	86 (75-91)	77 (2.9)		IV	64 (56-77)	189 (21.0)	21.9	Missing	77 (67-85)	25 (2.6)	

**Supplementary Table 16A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in Canada for colon cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>†</sup>	All ages	82.2 (81.0 - 83.3)	83.6 (82.7 - 84.4)	81.5 (79.5 - 83.2)	84.1 (82.0 - 86.0)	84.7 (82.5 - 86.6)	78.6 (76.6 - 80.5)	84.2 (83.6 - 84.7)	84.0 (78.9 - 87.9)	82.5 (80.6 - 84.2)
	15-49	89.2 (85.6 - 92.0)	90.7 (87.7 - 93.0)	87.6 (80.9 - 92.1)	91.6 (82.0 - 96.2)	91.7 (83.1 - 96.0)	89.1 (80.5 - 94.0)	91.2 (89.6 - 92.7)	93.4 (60.1 - 99.1)	93.1 (87.0 - 96.4)
	50-64	87.8 (85.9 - 89.5)	87.7 (86.1 - 89.2)	86.4 (82.8 - 89.2)	91.8 (88.1 - 94.3)	88.3 (84.6 - 91.2)	84.0 (80.3 - 87.1)	89.0 (88.0 - 89.9)	90.2 (80.7 - 95.2)	88.8 (85.6 - 91.3)
	65-79	82.3 (80.3 - 84.1)	84.6 (83.2 - 85.9)	82.2 (79.1 - 85.0)	85.5 (82.3 - 88.2)	82.9 (79.5 - 85.7)	79.7 (76.7 - 82.4)	84.0 (83.0 - 84.9)	82.2 (74.8 - 87.6)	82.3 (79.1 - 85.1)
	80-99	68.0 (64.7 - 71.1)	69.3 (67.0 - 71.5)	68.2 (63.3 - 72.6)	63.3 (57.3 - 68.6)	76.7 (69.3 - 82.6)	60.4 (55.3 - 65.1)	71.7 (70.2 - 73.2)	74.2 (59.7 - 84.2)	66.0 (60.9 - 70.5)
<b>TNM Stage<sup>‡</sup></b>										
Stage I	All ages	95.9 (94.4 - 97.4)	97.7 (96.6 - 98.8)	95.0 (92.4 - 97.6)	97.9 (95.4 - 100.0)	97.5 (94.9 - 100.0)	89.0 (85.8 - 92.2)	96.5 (95.7 - 97.2)	90.6 (81.3 - 99.8)	92.7 (90.0 - 95.4)
	15-49	98.4 (96.0 - 100.0)	98.8 (96.2 - 100.0)	99.8 (97.2 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	98.6 (97.2 - 100.0)	83.5 (53.8 - 100.0)	100.0 (100.0 - 100.0)
	50-64	98.6 (97.0 - 100.0)	98.9 (97.7 - 100.0)	99.7 (97.7 - 100.0)	99.1 (96.0 - 100.0)	99.5 (97.1 - 100.0)	95.4 (91.3 - 99.6)	98.7 (97.8 - 99.6)	100.0 (100.0 - 100.0)	98.6 (96.3 - 100.0)
	65-79	97.7 (95.6 - 99.7)	98.1 (96.6 - 99.6)	96.9 (93.3 - 100.0)	97.8 (94.0 - 100.0)	96.4 (91.8 - 100.0)	94.5 (90.7 - 98.2)	96.5 (95.3 - 97.7)	95.9 (87.5 - 100.0)	93.5 (89.5 - 97.5)
	80-99	85.5 (79.1 - 92.0)	93.8 (89.6 - 97.9)	81.4 (71.5 - 91.3)	94.0 (83.7 - 100.0)	93.4 (81.9 - 100.0)	57.5 (45.6 - 69.5)	91.0 (88.2 - 93.8)	73.0 (40.5 - 100.0)	77.4 (67.6 - 87.2)
Stage II	All ages	95.6 (94.1 - 97.1)	94.5 (93.4 - 95.7)	94.5 (92.2 - 96.7)	96.3 (93.8 - 98.8)	95.6 (93.0 - 98.2)	90.0 (87.1 - 92.8)	94.1 (93.4 - 94.9)	96.8 (91.7 - 100.0)	92.6 (89.8 - 95.5)
	15-49	98.4 (95.1 - 100.0)	100.0 (100.0 - 100.0)	94.2 (86.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	95.8 (87.6 - 100.0)	98.3 (96.6 - 99.9)	100.0 (100.0 - 100.0)	93.5 (84.6 - 100.0)
	50-64	98.4 (96.7 - 100.0)	97.2 (95.5 - 98.8)	98.8 (96.2 - 100.0)	100.0 (99.3 - 100.0)	98.0 (94.4 - 100.0)	92.2 (87.1 - 97.2)	97.4 (96.4 - 98.5)	96.1 (87.3 - 100.0)	96.6 (92.7 - 100.0)
	65-79	96.4 (94.1 - 98.6)	95.5 (93.7 - 97.2)	94.3 (90.6 - 98.1)	97.8 (94.4 - 100.0)	94.3 (90.1 - 98.6)	89.6 (85.2 - 93.9)	94.8 (93.6 - 96.0)	95.2 (87.1 - 100.0)	93.1 (88.8 - 97.5)
	80-99	87.2 (81.9 - 92.5)	85.4 (81.8 - 89.1)	86.8 (80.0 - 93.7)	83.0 (72.7 - 93.3)	90.6 (80.4 - 100.0)	82.0 (74.1 - 89.9)	85.1 (82.8 - 87.4)	100.0 (89.5 - 100.0)	85.4 (77.6 - 93.1)
Stage III	All ages	90.1 (88.2 - 92.0)	89.5 (88.1 - 91.0)	88.5 (85.5 - 91.5)	91.0 (87.8 - 94.2)	85.8 (81.7 - 89.9)	88.6 (85.7 - 91.5)	89.9 (88.9 - 90.9)	94.2 (88.4 - 100.0)	90.9 (87.8 - 94.0)
	15-49	97.2 (93.9 - 100.0)	97.4 (94.7 - 100.0)	97.8 (93.2 - 100.0)	99.3 (94.4 - 100.0)	100.0 (100.0 - 100.0)	95.0 (85.0 - 100.0)	97.6 (95.8 - 99.4)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	94.1 (91.6 - 96.6)	94.4 (92.4 - 96.5)	91.7 (87.1 - 96.2)	97.6 (94.1 - 100.0)	91.7 (86.4 - 97.1)	95.9 (92.2 - 99.6)	95.0 (93.8 - 96.3)	94.9 (83.9 - 100.0)	98.0 (95.0 - 100.0)
	65-79	89.8 (86.7 - 92.9)	91.1 (89.0 - 93.2)	89.5 (85.0 - 94.0)	94.3 (89.8 - 98.9)	82.6 (76.3 - 88.9)	89.9 (85.4 - 94.4)	89.4 (87.8 - 91.0)	92.5 (83.4 - 100.0)	89.0 (83.6 - 94.4)
	80-99	79.2 (73.0 - 85.4)	73.9 (69.4 - 78.5)	72.9 (62.6 - 83.1)	67.8 (56.4 - 79.1)	73.8 (58.4 - 89.2)	67.8 (58.5 - 77.2)	76.9 (73.9 - 79.8)	90.9 (71.9 - 100.0)	78.5 (68.1 - 89.0)
Stage IV	All ages	46.6 (43.6 - 49.6)	50.1 (47.6 - 52.5)	40.1 (34.9 - 45.3)	53.0 (47.6 - 58.4)	49.2 (43.2 - 55.3)	43.1 (38.3 - 47.9)	49.4 (47.7 - 51.0)	51.9 (40.6 - 63.2)	49.7 (44.8 - 54.5)
	15-49	61.9 (52.0 - 71.8)	68.6 (60.4 - 76.8)	58.6 (42.5 - 74.6)	70.2 (49.2 - 91.2)	71.0 (52.5 - 89.5)	70.7 (53.5 - 87.8)	71.0 (65.9 - 76.0)	100.0 (100.0 - 100.0)	78.8 (64.8 - 92.8)
	50-64	61.6 (56.4 - 66.7)	61.5 (57.0 - 66.0)	52.6 (43.1 - 62.2)	69.1 (59.0 - 79.3)	58.9 (48.3 - 69.4)	53.1 (44.2 - 62.0)	61.2 (58.1 - 64.4)	63.7 (40.3 - 87.0)	57.7 (48.5 - 66.9)
	65-79	42.7 (38.0 - 47.5)	47.2 (43.3 - 51.0)	35.9 (28.0 - 43.8)	52.0 (44.0 - 60.0)	45.4 (36.4 - 54.4)	35.9 (28.7 - 43.1)	45.7 (42.9 - 48.5)	44.9 (29.3 - 60.6)	45.3 (37.3 - 53.3)
	80-99	19.8 (14.2 - 25.3)	22.4 (18.3 - 26.5)	21.2 (13.1 - 29.3)	16.4 (8.6 - 24.2)	25.5 (11.0 - 40.0)	23.3 (14.7 - 32.0)	22.9 (19.9 - 25.9)	22.4 (2.0 - 42.9)	25.4 (17.3 - 33.4)
<b>Mapped SEER stage<sup>§</sup></b>										
Localised	All ages	96.3 (95.1 - 97.5)	96.6 (95.8 - 97.5)	95.8 (94.0 - 97.7)	97.5 (95.6 - 99.3)	97.4 (95.4 - 99.4)	89.9 (87.3 - 92.6)	96.3 (95.7 - 96.9)	93.2 (86.0 - 100.0)	93.9 (92.0 - 95.8)
	15-49	98.6 (96.6 - 100.0)	99.3 (97.8 - 100.0)	100.0 (98.2 - 100.0)	100.0 (100.0 - 100.0)	99.8 (97.3 - 100.0)	100.0 (100.0 - 100.0)	98.8 (97.6 - 99.9)	83.5 (53.8 - 100.0)	96.0 (90.5 - 100.0)
	50-64	98.8 (97.6 - 100.0)	98.5 (97.5 - 99.6)	98.8 (96.8 - 100.0)	99.5 (97.4 - 100.0)	99.9 (98.4 - 100.0)	93.8 (89.7 - 97.9)	98.7 (98.0 - 99.4)	97.4 (91.3 - 100.0)	98.7 (96.9 - 100.0)
	65-79	97.6 (96.0 - 99.3)	97.0 (95.8 - 98.3)	97.6 (95.0 - 100.0)	98.7 (96.3 - 100.0)	95.4 (92.0 - 98.7)	93.8 (90.4 - 97.2)	96.4 (95.5 - 97.3)	98.7 (93.9 - 100.0)	94.8 (91.9 - 97.7)
	80-99	87.8 (82.9 - 92.7)	90.5 (87.0 - 94.0)	85.3 (78.6 - 91.9)	89.0 (81.6 - 96.5)	95.4 (87.6 - 100.0)	69.6 (60.8 - 78.5)	90.6 (88.5 - 92.8)	85.8 (66.6 - 100.0)	82.5 (75.7 - 89.4)
Regional	All ages	91.7 (90.3 - 93.2)	90.7 (89.6 - 91.8)	89.7 (87.4 - 92.0)	90.0 (86.8 - 93.2)	87.0 (83.5 - 90.4)	89.7 (87.5 - 91.9)	90.8 (90.0 - 91.5)	93.2 (87.6 - 98.7)	91.0 (88.4 - 93.7)
	15-49	97.4 (94.7 - 100.0)	97.9 (95.7 - 100.0)	94.6 (88.5 - 100.0)	96.6 (89.6 - 100.0)	99.6 (94.8 - 100.0)	94.7 (87.4 - 100.0)	97.3 (95.9 - 98.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	95.3 (93.3 - 97.3)	94.8 (93.1 - 96.4)	93.9 (90.5 - 97.3)	97.8 (94.7 - 100.0)	92.4 (87.7 - 97.1)	97.1 (94.5 - 99.7)	95.5 (94.4 - 96.5)	96.9 (89.6 - 100.0)	97.7 (94.8 - 100.0)
	65-79	91.7 (89.4 - 94.1)	92.3 (90.6 - 94.0)	89.8 (86.2 - 93.4)	92.9 (88.4 - 97.4)	84.2 (78.9 - 89.5)	89.2 (85.8 - 92.7)	90.9 (89.7 - 92.2)	89.5 (80.6 - 98.5)	88.6 (83.8 - 93.3)
	80-99	81.4 (76.4 - 86.5)	77.0 (73.6 - 80.4)	78.0 (70.8 - 85.2)	67.6 (56.9 - 78.3)	74.9 (61.9 - 87.8)	73.0 (65.9 - 80.2)	78.2 (76.0 - 80.5)	93.7 (78.5 - 100.0)	80.7 (72.7 - 88.6)
Distant	All ages	48.5 (45.6 - 51.5)	50.6 (48.1 - 53.0)	42.3 (37.1 - 47.4)	54.7 (49.5 - 59.9)	50.1 (44.1 - 56.1)	44.5 (39.7 - 49.2)	51.0 (49.4 - 52.7)	54.8 (43.9 - 65.7)	50.7 (46.1 - 55.4)
	15-49	62.7 (52.9 - 72.4)	68.6 (60.4 - 76.8)	59.7 (43.9 - 75.6)	75.0 (55.8 - 94.3)	68.3 (48.1 - 88.5)	71.0 (54.1 - 88.0)	72.4 (67.6 - 77.2)	100.0 (100.0 - 100.0)	80.6 (67.5 - 93.6)
	50-64	62.9 (57.9 - 67.9)	61.6 (57.1 - 66.0)	54.6 (45.3 - 64.0)	70.2 (60.0 - 80.4)	59.3 (49.0 - 69.6)	53.6 (45.2 - 62.1)	62.7 (59.7 - 65.7)	67.9 (46.4 - 89.3)	59.2 (50.4 - 68.0)
	65-79	45.4 (40.8 - 50.0)	47.9 (44.1 - 51.8)	37.4 (29.6 - 45.3)	52.7 (44.6 - 60.8)	47.8 (38.9 - 56.6)	38.5 (31.4 - 45.7)	47.2 (44.5 - 49.9)	46.3 (30.8 - 61.8)	47.0 (39.2 - 54.8)
	80-99	22.2 (16.9 - 27.5)	23.4 (19.3 - 27.6)	24.6 (16.3 - 33.0)	18.3 (10.2 - 26.4)	24.2 (10.1 - 38.4)	24.4 (15.7 - 33.1)	25.4 (22.4 - 28.5)	28.0 (6.0 - 50.1)	24.9 (17.1 - 32.7)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup> Modell: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Modell2: Age spline allowing separate models for each stage category

**Supplementary Table 16B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in Canada for colon cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>†</sup>	All ages	65.1 (63.5 - 66.7)	65.9 (64.6 - 67.2)	64.2 (61.6 - 66.7)	68.3 (65.2 - 71.2)	73.4 (70.2 - 76.4)	62.2 (59.6 - 64.7)	68.3 (67.4 - 69.1)	62.0 (54.7 - 68.6)	64.7 (61.9 - 67.3)
	15-49	72.7 (67.9 - 77.0)	67.2 (62.8 - 71.2)	69.8 (61.5 - 76.7)	74.1 (63.0 - 82.3)	72.3 (60.6 - 81.1)	62.5 (52.5 - 70.9)	72.7 (70.1 - 75.1)	49.8 (24.3 - 70.9)	69.6 (60.3 - 77.1)
	50-64	68.7 (66.0 - 71.1)	68.1 (65.9 - 70.3)	68.3 (64.0 - 72.3)	70.1 (65.0 - 74.6)	72.8 (67.8 - 77.1)	66.3 (61.9 - 70.3)	71.3 (69.9 - 72.7)	75.2 (62.3 - 84.2)	71.5 (67.1 - 75.4)
	65-79	66.3 (63.7 - 68.8)	68.1 (66.1 - 70.0)	64.3 (60.3 - 67.9)	71.0 (66.4 - 75.0)	72.8 (68.2 - 76.9)	64.6 (60.7 - 68.2)	67.7 (66.4 - 69.0)	60.2 (50.6 - 68.6)	65.1 (60.9 - 69.0)
	80-99	51.6 (46.7 - 56.2)	56.1 (52.6 - 59.5)	53.5 (46.7 - 59.9)	57.8 (49.1 - 65.5)	76.7 (62.7 - 86.0)	48.3 (41.6 - 54.7)	61.6 (59.1 - 64.0)	53.2 (31.5 - 70.8)	49.5 (42.3 - 56.3)
<b>TNM Stage<sup>‡</sup></b>										
Stage I	All ages	91.3 (88.2 - 94.3)	96.7 (93.9 - 99.5)	88.7 (83.7 - 93.6)	99.6 (94.8 - 100.0)	92.3 (84.7 - 100.0)	87.0 (82.2 - 91.7)	95.1 (93.5 - 96.7)	77.6 (62.0 - 93.2)	86.5 (81.4 - 91.5)
	15-49	98.3 (95.4 - 100.0)	93.8 (87.8 - 99.9)	94.6 (82.9 - 100.0)	94.1 (80.9 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	94.8 (91.6 - 98.0)	84.0 (54.1 - 100.0)	100.0 (100.0 - 100.0)
	50-64	94.6 (91.3 - 97.9)	95.8 (92.8 - 98.9)	96.6 (91.5 - 100.0)	97.0 (91.0 - 100.0)	94.7 (86.3 - 100.0)	92.6 (86.7 - 98.5)	95.9 (94.1 - 97.7)	91.2 (74.4 - 100.0)	95.0 (89.7 - 100.0)
	65-79	94.6 (90.1 - 99.1)	98.2 (94.6 - 100.0)	95.8 (89.2 - 100.0)	98.4 (91.1 - 100.0)	90.3 (79.4 - 100.0)	92.7 (86.2 - 99.3)	93.8 (91.5 - 96.1)	86.8 (69.6 - 100.0)	91.9 (85.3 - 98.5)
	80-99	74.2 (62.2 - 86.2)	96.2 (84.7 - 100.0)	60.9 (46.4 - 75.5)	100.0 (90.1 - 100.0)	88.0 (56.9 - 100.0)	53.8 (39.0 - 68.7)	98.0 (91.6 - 100.0)	40.0 (0.0 - 85.1)	59.5 (44.5 - 74.5)
Stage II	All ages	88.5 (85.8 - 91.3)	87.4 (84.9 - 89.8)	85.4 (81.2 - 89.5)	91.1 (86.3 - 95.9)	92.6 (87.0 - 98.2)	83.5 (79.2 - 87.7)	88.4 (86.9 - 90.0)	82.6 (69.9 - 95.4)	82.3 (77.2 - 87.3)
	15-49	94.0 (87.7 - 100.0)	94.7 (89.7 - 99.6)	83.9 (71.4 - 96.4)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	82.4 (67.6 - 97.1)	94.0 (90.6 - 97.4)	67.4 (14.5 - 100.0)	83.8 (67.7 - 99.9)
	50-64	90.2 (86.4 - 93.9)	88.5 (84.8 - 92.2)	92.5 (87.0 - 97.9)	92.5 (86.1 - 98.8)	93.0 (85.9 - 100.0)	84.3 (77.6 - 91.1)	90.8 (88.5 - 93.2)	83.6 (65.3 - 100.0)	87.9 (81.0 - 94.8)
	65-79	88.2 (84.1 - 92.4)	86.8 (83.3 - 90.2)	81.4 (74.8 - 87.9)	91.2 (84.2 - 98.2)	92.7 (84.6 - 100.0)	81.8 (75.6 - 88.1)	86.7 (84.3 - 89.2)	83.6 (68.5 - 98.6)	81.1 (74.0 - 88.1)
	80-99	82.9 (73.2 - 92.6)	82.6 (75.3 - 89.8)	81.0 (68.0 - 94.0)	83.8 (66.8 - 100.0)	85.9 (60.0 - 100.0)	84.4 (70.7 - 98.2)	85.3 (80.5 - 90.0)	92.8 (48.7 - 100.0)	73.9 (58.6 - 89.3)
Stage III	All ages	70.1 (67.0 - 73.2)	70.0 (67.4 - 72.7)	66.9 (62.1 - 71.6)	77.3 (71.9 - 82.7)	62.0 (54.9 - 69.1)	64.9 (60.1 - 69.6)	70.6 (68.5 - 72.7)	76.7 (65.0 - 88.3)	71.7 (66.4 - 77.1)
	15-49	87.7 (81.2 - 94.2)	75.6 (68.4 - 82.8)	81.7 (70.4 - 93.1)	97.0 (89.4 - 100.0)	78.6 (58.9 - 98.2)	70.0 (53.0 - 87.0)	81.1 (76.6 - 85.7)	86.6 (60.5 - 100.0)	88.4 (76.3 - 100.0)
	50-64	78.3 (73.8 - 82.7)	78.3 (74.4 - 82.1)	70.4 (63.1 - 77.7)	78.1 (69.8 - 86.4)	67.1 (57.6 - 76.5)	79.7 (72.4 - 86.9)	77.4 (74.4 - 80.3)	87.1 (70.1 - 100.0)	86.3 (79.6 - 93.0)
	65-79	69.9 (65.1 - 74.7)	71.3 (67.7 - 74.8)	64.4 (57.3 - 71.6)	78.9 (70.4 - 87.4)	60.4 (51.6 - 69.2)	62.1 (54.8 - 69.3)	69.2 (66.5 - 72.0)	67.8 (46.7 - 88.9)	62.5 (54.2 - 70.7)
	80-99	45.3 (36.0 - 54.7)	50.5 (42.9 - 58.1)	53.2 (39.2 - 67.1)	57.9 (40.6 - 75.2)	53.0 (28.5 - 77.5)	39.5 (27.7 - 51.3)	55.3 (49.9 - 60.7)	66.4 (26.1 - 100.0)	59.9 (42.9 - 76.8)
Stage IV	All ages	12.8 (10.7 - 14.8)	11.9 (10.0 - 13.8)	11.8 (8.7 - 14.8)	12.5 (8.5 - 16.6)	9.4 (5.2 - 13.6)	11.0 (7.9 - 14.0)	11.1 (9.6 - 12.5)	6.3 (0.0 - 13.9)	12.3 (9.0 - 15.6)
	15-49	22.6 (14.9 - 30.3)	19.4 (12.4 - 26.3)	26.2 (12.5 - 39.8)	19.5 (4.0 - 34.9)	12.1 (0.0 - 29.2)	16.8 (4.6 - 29.0)	21.4 (15.9 - 26.8)	0.4 (0.0 - 2.9)	14.9 (3.6 - 26.3)
	50-64	17.9 (13.9 - 21.9)	15.5 (11.7 - 19.3)	15.6 (9.4 - 21.8)	18.4 (10.6 - 26.1)	14.3 (6.4 - 22.1)	12.0 (6.8 - 17.3)	16.7 (13.8 - 19.6)	*	16.7 (10.6 - 22.9)
	65-79	10.2 (7.1 - 13.3)	10.8 (7.8 - 13.8)	8.3 (4.5 - 12.0)	13.4 (7.2 - 19.6)	7.5 (2.0 - 13.0)	10.8 (5.6 - 16.0)	8.6 (6.7 - 10.5)	4.4 (0.0 - 10.5)	11.0 (5.6 - 16.5)
	80-99	1.5 (0.0 - 3.6)	2.3 (0.6 - 4.0)	*	1.3 (0.0 - 3.5)	1.6 (0.0 - 7.2)	1.3 (0.0 - 4.1)	2.5 (1.1 - 3.8)	*	1.9 (0.0 - 5.6)
<b>Mapped SEER stage<sup>‡</sup></b>										
Localised	All ages	91.7 (89.3 - 94.1)	93.9 (91.9 - 95.9)	89.7 (86.0 - 93.4)	96.2 (92.7 - 99.7)	94.3 (89.2 - 99.5)	88.1 (84.1 - 92.2)	94.8 (93.4 - 96.1)	80.8 (69.7 - 92.0)	86.4 (82.5 - 90.2)
	15-49	95.1 (91.0 - 99.3)	93.6 (89.2 - 98.1)	93.1 (84.6 - 100.0)	96.9 (89.1 - 100.0)	100.0 (98.1 - 100.0)	100.0 (100.0 - 100.0)	95.1 (92.5 - 97.7)	59.9 (14.7 - 100.0)	96.9 (91.2 - 100.0)
	50-64	94.1 (91.4 - 96.8)	94.0 (91.2 - 96.8)	95.4 (91.1 - 99.6)	95.1 (90.2 - 100.0)	96.0 (90.8 - 100.0)	90.8 (85.2 - 96.4)	95.4 (93.8 - 96.9)	84.7 (70.8 - 98.7)	93.8 (89.5 - 98.2)
	65-79	93.3 (89.8 - 96.7)	93.6 (90.8 - 96.5)	91.2 (85.8 - 96.6)	96.2 (90.8 - 100.0)	92.8 (85.8 - 99.8)	91.7 (85.8 - 97.6)	92.8 (90.8 - 94.7)	87.8 (75.5 - 100.0)	88.5 (83.3 - 93.7)
	80-99	82.1 (73.0 - 91.2)	93.6 (86.3 - 100.0)	75.9 (64.0 - 87.7)	97.4 (83.4 - 100.0)	92.3 (70.3 - 100.0)	67.2 (53.7 - 80.7)	99.4 (94.3 - 100.0)	67.8 (32.5 - 100.0)	67.2 (55.4 - 79.0)
Regional	All ages	75.8 (73.3 - 78.3)	74.2 (72.2 - 76.3)	71.9 (68.2 - 75.7)	77.6 (72.7 - 82.4)	67.0 (60.9 - 73.1)	74.6 (71.2 - 78.0)	74.9 (73.4 - 76.4)	78.5 (68.6 - 88.5)	74.2 (69.7 - 78.7)
	15-49	90.7 (85.8 - 95.6)	79.7 (73.9 - 85.6)	79.7 (69.4 - 90.0)	97.4 (90.4 - 100.0)	83.4 (67.4 - 99.3)	76.6 (65.0 - 88.3)	84.4 (80.8 - 88.0)	88.3 (65.3 - 100.0)	89.5 (79.7 - 99.3)
	50-64	81.5 (77.9 - 85.1)	80.1 (76.8 - 83.3)	76.7 (70.9 - 82.5)	81.0 (73.9 - 88.1)	72.7 (64.4 - 81.0)	85.2 (80.2 - 90.2)	80.4 (78.2 - 82.7)	90.7 (76.9 - 100.0)	85.7 (79.6 - 91.7)
	65-79	75.1 (71.2 - 79.0)	75.4 (72.5 - 78.3)	70.3 (64.7 - 75.9)	78.2 (70.9 - 85.5)	63.8 (55.7 - 71.8)	71.1 (65.9 - 76.2)	73.9 (71.7 - 76.2)	69.0 (52.7 - 85.3)	67.2 (60.3 - 74.0)
	80-99	57.3 (49.3 - 65.4)	59.4 (53.5 - 65.3)	60.6 (49.6 - 71.7)	57.0 (42.1 - 71.8)	56.9 (35.2 - 78.6)	60.0 (49.9 - 70.1)	61.4 (57.1 - 65.8)	72.0 (36.4 - 100.0)	64.3 (50.3 - 78.4)
Distant	All ages	15.6 (13.5 - 17.8)	12.1 (10.3 - 13.8)	14.0 (10.7 - 17.2)	13.2 (9.0 - 17.4)	10.4 (6.0 - 14.8)	12.8 (9.7 - 15.9)	13.5 (12.3 - 14.8)	7.9 (0.0 - 17.2)	14.9 (11.4 - 18.4)
	15-49	24.2 (16.4 - 32.0)	19.5 (12.3 - 26.7)	29.8 (16.0 - 43.6)	20.1 (4.7 - 35.5)	8.0 (0.0 - 20.9)	18.7 (6.6 - 30.7)	25.4 (20.1 - 30.7)	0.4 (0.0 - 2.9)	16.4 (4.6 - 28.1)
	50-64	20.5 (16.4 - 24.5)	15.3 (11.9 - 18.8)	18.6 (12.2 - 25.0)	19.4 (11.5 - 27.3)	13.9 (6.5 - 21.4)	13.0 (7.8 - 18.2)	19.8 (17.0 - 22.5)	*	21.4 (14.8 - 28.0)
	65-79	14.5 (11.1 - 17.9)	11.8 (8.8 - 14.9)	9.3 (5.4 - 13.3)	13.5 (7.2 - 19.8)	11.0 (4.3 - 17.6)	14.3 (9.0 - 19.6)	10.8 (8.9 - 12.7)	5.1 (0.0 - 12.0)	12.6 (6.8 - 18.5)
	80-99	4.0 (1.0 - 6.9)	2.2 (0.7 - 3.6)	4.5 (0.0 - 9.2)	2.0 (0.0 - 5.0)	3.4 (0.0 - 12.7)	2.0 (0.0 - 5.0)	3.1 (1.7 - 4.5)	*	2.8 (0.0 - 7.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

\*Not possible to estimate



**Supplementary Table 17A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in Canada for rectal cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	86.3 (84.4 - 88.0)	87.7 (86.2 - 89.0)	84.5 (81.4 - 87.1)	85.3 (81.3 - 88.5)	86.3 (81.9 - 89.7)	81.6 (78.1 - 84.7)	87.0 (86.0 - 88.0)	90.3 (79.6 - 95.6)	84.7 (81.4 - 87.5)
	15-49	94.0 (89.5 - 96.6)	93.9 (90.1 - 96.2)	92.8 (84.4 - 96.8)	97.9 (83.6 - 99.7)	91.4 (75.2 - 97.2)	86.4 (74.5 - 93.0)	96.2 (94.3 - 97.5)	90.2 (46.8 - 98.6)	92.3 (80.4 - 97.1)
	50-64	91.0 (88.5 - 92.9)	91.6 (89.5 - 93.3)	88.5 (83.8 - 91.9)	91.5 (85.6 - 95.1)	94.7 (89.3 - 97.5)	89.3 (84.5 - 92.7)	91.6 (90.3 - 92.8)	89.3 (68.6 - 96.6)	92.4 (87.9 - 95.3)
	65-79	86.9 (83.7 - 89.5)	88.6 (86.4 - 90.5)	83.9 (78.7 - 87.9)	83.3 (77.2 - 87.9)	86.5 (79.7 - 91.1)	82.4 (77.4 - 86.5)	87.4 (85.7 - 88.8)	96.9 (73.3 - 99.7)	85.2 (79.8 - 89.2)
	80-99	71.8 (65.0 - 77.5)	74.8 (70.0 - 78.9)	74.7 (64.6 - 82.3)	70.5 (55.5 - 81.2)	64.0 (46.9 - 76.8)	66.8 (55.2 - 76.0)	73.4 (70.0 - 76.4)	81.0 (36.3 - 95.7)	65.0 (54.3 - 73.9)
<b>TNM Stage<sup>§</sup></b>										
Stage I	All ages	98.9 (96.8 - 100.0)	97.2 (95.2 - 99.3)	95.3 (91.3 - 99.4)	91.9 (86.9 - 96.9)	96.3 (91.9 - 100.0)	90.6 (85.5 - 95.8)	96.2 (94.9 - 97.6)	91.7 (82.4 - 100.0)	92.7 (88.1 - 97.3)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.7 (95.5 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (99.5 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	98.7 (96.7 - 100.0)	97.6 (94.7 - 100.0)	100.0 (100.0 - 100.0)	93.2 (86.1 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	98.6 (97.4 - 99.8)	93.6 (80.6 - 100.0)	98.8 (95.1 - 100.0)
	65-79	98.1 (94.9 - 100.0)	97.9 (95.0 - 100.0)	95.2 (88.9 - 100.0)	93.6 (87.3 - 100.0)	94.2 (86.0 - 100.0)	90.2 (82.8 - 97.7)	96.8 (95.0 - 98.6)	93.0 (80.4 - 100.0)	96.7 (90.8 - 100.0)
	80-99	100.0 (91.9 - 100.0)	92.5 (83.2 - 100.0)	83.7 (67.7 - 99.6)	80.3 (61.3 - 99.4)	88.9 (68.3 - 100.0)	73.0 (55.3 - 90.7)	88.2 (82.0 - 94.3)	80.0 (38.1 - 100.0)	69.5 (51.2 - 87.8)
Stage II	All ages	93.1 (89.7 - 96.4)	95.8 (93.7 - 97.8)	92.8 (86.9 - 98.7)	96.1 (92.4 - 99.8)	90.8 (85.2 - 96.3)	91.3 (85.0 - 97.5)	91.4 (89.3 - 93.5)	95.7 (86.8 - 100.0)	92.2 (87.2 - 97.2)
	15-49	92.1 (81.2 - 100.0)	100.0 (100.0 - 100.0)	97.4 (75.7 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (99.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	97.8 (94.8 - 100.0)	96.5 (93.8 - 99.3)	96.8 (89.3 - 100.0)	96.0 (90.6 - 100.0)	100.0 (100.0 - 100.0)	90.9 (81.6 - 100.0)	94.3 (91.5 - 97.1)	100.0 (100.0 - 100.0)	97.8 (92.3 - 100.0)
	65-79	95.2 (90.3 - 100.0)	97.5 (94.7 - 100.0)	93.5 (84.1 - 100.0)	96.8 (91.6 - 100.0)	87.4 (78.7 - 96.1)	92.1 (83.8 - 100.0)	90.2 (86.5 - 93.9)	100.0 (100.0 - 100.0)	92.8 (85.4 - 100.0)
	80-99	78.4 (65.5 - 91.3)	88.1 (79.9 - 96.2)	84.1 (66.9 - 100.0)	90.9 (75.1 - 100.0)	66.7 (36.2 - 97.1)	85.5 (63.3 - 100.0)	83.4 (76.3 - 90.5)	71.0 (29.5 - 100.0)	73.7 (53.1 - 94.3)
Stage III	All ages	93.3 (90.8 - 95.9)	93.9 (91.8 - 96.0)	92.1 (88.1 - 96.0)	89.5 (83.8 - 95.3)	92.8 (87.8 - 97.8)	92.6 (88.3 - 96.9)	92.1 (90.5 - 93.7)	91.6 (79.5 - 100.0)	92.7 (88.0 - 97.4)
	15-49	98.6 (95.4 - 100.0)	100.0 (100.0 - 100.0)	97.4 (92.0 - 100.0)	99.7 (96.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	97.4 (95.5 - 99.4)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	95.2 (92.5 - 97.8)	97.6 (95.9 - 99.4)	97.8 (94.7 - 100.0)	97.3 (93.7 - 100.0)	96.4 (92.2 - 100.0)	98.8 (96.2 - 100.0)	95.6 (93.9 - 97.3)	98.2 (87.6 - 100.0)	97.9 (94.2 - 100.0)
	65-79	94.2 (90.7 - 97.8)	95.6 (92.9 - 98.2)	91.8 (86.0 - 97.5)	92.1 (84.9 - 99.2)	93.3 (86.2 - 100.0)	90.0 (83.5 - 96.5)	92.4 (90.0 - 94.8)	89.4 (73.2 - 100.0)	92.1 (85.5 - 98.8)
	80-99	83.7 (72.5 - 94.9)	79.7 (71.3 - 88.1)	79.2 (62.9 - 95.4)	52.2 (23.3 - 81.2)	71.7 (43.3 - 100.0)	87.3 (68.9 - 100.0)	82.8 (76.9 - 88.6)	77.5 (30.6 - 100.0)	80.9 (62.2 - 99.7)
Stage IV	All ages	53.8 (48.1 - 59.5)	57.6 (53.3 - 62.0)	52.9 (44.7 - 61.1)	56.5 (48.3 - 64.6)	54.3 (44.9 - 63.7)	44.5 (35.9 - 53.2)	58.6 (55.2 - 62.0)	54.7 (34.3 - 75.1)	53.6 (44.3 - 62.9)
	15-49	79.3 (66.6 - 92.1)	75.0 (64.1 - 85.8)	75.5 (55.7 - 95.3)	86.3 (67.2 - 100.0)	57.4 (31.5 - 83.2)	59.9 (38.5 - 81.4)	83.6 (76.1 - 91.1)	82.2 (50.0 - 100.0)	74.2 (52.2 - 96.3)
	50-64	66.5 (58.3 - 74.8)	68.3 (61.3 - 75.4)	57.7 (45.6 - 69.7)	59.8 (45.7 - 73.9)	78.1 (65.7 - 90.5)	54.0 (39.4 - 68.6)	69.5 (64.5 - 74.6)	47.7 (7.9 - 87.5)	75.7 (64.6 - 86.8)
	65-79	46.3 (36.5 - 56.1)	54.7 (47.7 - 61.8)	50.6 (38.0 - 63.2)	55.9 (43.8 - 68.1)	57.5 (43.2 - 71.8)	47.7 (34.6 - 60.7)	57.1 (51.5 - 62.7)	52.3 (17.0 - 87.6)	40.5 (25.0 - 56.0)
	80-99	32.7 (20.9 - 44.5)	35.6 (24.7 - 46.5)	33.9 (10.7 - 57.0)	37.1 (17.5 - 56.7)	7.8 (0.0 - 20.4)	17.3 (0.8 - 33.9)	31.2 (24.3 - 38.0)	39.4 (0.0 - 84.6)	31.2 (11.3 - 51.1)
<b>Mapped SEER stage<sup>¶</sup></b>										
Localised	All ages	98.0 (96.1 - 99.9)	97.4 (95.9 - 98.9)	95.7 (92.4 - 99.1)	93.6 (89.5 - 97.7)	98.1 (94.5 - 100.0)	91.2 (86.5 - 95.8)	95.5 (94.3 - 96.7)	93.2 (86.4 - 100.0)	93.0 (88.4 - 97.7)
	15-49	98.8 (96.1 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (99.6 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	99.2 (97.7 - 100.0)	98.5 (96.9 - 100.0)	100.0 (100.0 - 100.0)	98.9 (95.5 - 100.0)	100.0 (100.0 - 100.0)	99.2 (96.2 - 100.0)	97.8 (96.5 - 99.0)	92.9 (82.6 - 100.0)	98.7 (94.7 - 100.0)
	65-79	98.7 (96.1 - 100.0)	97.7 (95.5 - 99.8)	95.4 (89.9 - 100.0)	89.2 (82.1 - 96.3)	96.7 (90.2 - 100.0)	91.6 (85.2 - 97.9)	95.7 (94.0 - 97.4)	95.9 (87.4 - 100.0)	95.3 (88.8 - 100.0)
	80-99	93.5 (84.5 - 100.0)	92.7 (86.5 - 98.9)	85.3 (71.8 - 98.8)	89.9 (75.2 - 100.0)	95.2 (77.4 - 100.0)	75.3 (59.3 - 91.3)	88.1 (83.1 - 93.1)	78.6 (44.5 - 100.0)	72.4 (53.3 - 91.5)
Regional	All ages	92.4 (90.2 - 94.6)	93.0 (91.2 - 94.8)	91.6 (87.9 - 95.2)	90.5 (84.6 - 96.4)	91.2 (85.0 - 97.3)	91.6 (87.8 - 95.3)	91.8 (90.4 - 93.2)	91.6 (82.4 - 100.0)	91.3 (86.6 - 96.0)
	15-49	97.6 (94.1 - 100.0)	100.0 (100.0 - 100.0)	95.4 (88.9 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	97.9 (96.2 - 99.7)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	95.5 (93.0 - 97.9)	96.1 (94.1 - 98.1)	97.5 (94.5 - 100.0)	96.2 (91.4 - 100.0)	97.5 (93.2 - 100.0)	95.9 (92.2 - 99.7)	95.0 (93.4 - 96.6)	100.0 (100.0 - 100.0)	96.4 (90.8 - 100.0)
	65-79	93.0 (89.7 - 96.3)	95.0 (92.7 - 97.3)	91.8 (86.6 - 97.1)	91.7 (84.2 - 99.1)	91.5 (83.3 - 99.7)	90.4 (85.0 - 95.8)	91.8 (89.6 - 94.0)	93.8 (82.9 - 100.0)	90.4 (83.3 - 97.6)
	80-99	81.5 (72.3 - 90.7)	78.5 (71.2 - 85.7)	79.5 (66.2 - 92.9)	60.9 (29.7 - 92.0)	64.9 (32.2 - 97.6)	83.4 (67.9 - 98.8)	83.2 (78.5 - 88.0)	70.0 (36.1 - 100.0)	77.7 (59.5 - 95.9)
Distant	All ages	54.7 (49.3 - 60.1)	57.5 (53.0 - 61.9)	54.3 (46.2 - 62.4)	58.1 (47.5 - 68.7)	51.9 (40.4 - 63.5)	46.8 (38.2 - 55.5)	60.0 (56.8 - 63.1)	55.7 (34.8 - 76.5)	60.7 (50.4 - 71.1)
	15-49	78.4 (65.8 - 91.0)	74.2 (63.2 - 85.1)	79.2 (60.9 - 97.5)	89.8 (70.5 - 100.0)	58.7 (22.5 - 94.8)	59.9 (38.5 - 81.4)	84.9 (78.2 - 91.5)	83.5 (53.8 - 100.0)	100.0 (100.0 - 100.0)
	50-64	66.8 (58.9 - 74.7)	68.3 (61.1 - 75.4)	60.3 (48.8 - 71.8)	64.0 (45.7 - 82.3)	77.2 (61.9 - 92.5)	56.0 (41.6 - 70.5)	71.0 (66.1 - 75.9)	57.6 (20.8 - 94.5)	74.4 (62.8 - 86.0)
	65-79	48.1 (38.6 - 57.6)	55.2 (47.9 - 62.4)	50.5 (38.0 - 62.9)	57.4 (42.4 - 72.4)	53.5 (36.6 - 70.5)	50.0 (37.6 - 62.4)	58.6 (53.4 - 63.8)	51.2 (15.9 - 86.6)	45.0 (26.3 - 63.6)
	80-99	33.6 (22.0 - 45.2)	33.6 (23.5 - 43.6)	36.6 (12.9 - 60.4)	32.3 (6.0 - 58.6)	*	21.6 (3.3 - 40.0)	32.1 (25.3 - 38.8)	42.1 (0.0 - 87.5)	39.4 (13.6 - 65.2)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 17B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in Canada for rectal cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	64.7 (61.8 - 67.4)	67.3 (65.1 - 69.3)	65.0 (60.8 - 68.9)	67.7 (62.3 - 72.4)	71.9 (65.9 - 77.1)	60.0 (55.2 - 64.5)	68.6 (67.0 - 70.1)	65.7 (51.9 - 76.4)	65.8 (61.1 - 70.1)
	15-49	75.7 (68.9 - 81.3)	71.2 (64.9 - 76.6)	71.3 (60.4 - 79.7)	75.7 (61.2 - 85.4)	73.1 (57.6 - 83.7)	61.2 (48.3 - 71.8)	80.2 (76.7 - 83.3)	41.4 (11.9 - 69.4)	72.7 (59.3 - 82.3)
	50-64	70.5 (66.7 - 73.9)	71.8 (68.7 - 74.7)	66.4 (60.5 - 71.6)	78.1 (70.6 - 83.9)	77.8 (70.0 - 83.8)	72.0 (65.6 - 77.4)	76.3 (74.2 - 78.3)	70.3 (49.5 - 83.8)	79.0 (72.7 - 84.1)
	65-79	68.7 (64.2 - 72.8)	69.8 (66.5 - 72.9)	64.0 (57.4 - 69.9)	63.4 (55.5 - 70.4)	73.5 (64.0 - 80.8)	63.7 (57.3 - 69.4)	68.6 (66.1 - 70.9)	77.7 (52.0 - 90.7)	68.5 (61.3 - 74.7)
	80-99	39.2 (31.2 - 47.2)	50.9 (44.1 - 57.3)	63.0 (46.9 - 75.4)	52.7 (34.1 - 68.3)	59.0 (29.1 - 79.7)	36.6 (23.3 - 50.1)	49.2 (44.2 - 54.0)	51.5 (9.1 - 83.2)	36.3 (25.0 - 47.6)
<b>TNM Stage<sup>§</sup></b>										
Stage I	All ages	93.7 (88.5 - 98.9)	93.8 (88.2 - 99.5)	84.4 (76.5 - 92.3)	84.4 (76.2 - 92.6)	96.7 (87.7 - 100.0)	83.7 (75.4 - 91.9)	91.6 (88.6 - 94.7)	89.3 (75.5 - 100.0)	87.4 (79.5 - 95.3)
	15-49	97.2 (90.4 - 100.0)	95.6 (86.1 - 100.0)	100.0 (96.5 - 100.0)	92.9 (77.4 - 100.0)	100.0 (100.0 - 100.0)	91.5 (73.9 - 100.0)	95.1 (90.5 - 99.7)	64.4 (9.7 - 100.0)	100.0 (100.0 - 100.0)
	50-64	95.8 (91.6 - 100.0)	94.7 (89.7 - 99.8)	89.3 (80.3 - 98.2)	83.6 (72.3 - 94.9)	98.3 (90.6 - 100.0)	100.0 (96.7 - 100.0)	96.7 (94.1 - 99.4)	91.1 (75.0 - 100.0)	96.0 (88.3 - 100.0)
	65-79	96.0 (89.4 - 100.0)	92.1 (84.7 - 99.4)	83.1 (71.1 - 95.1)	90.8 (80.3 - 100.0)	97.2 (83.2 - 100.0)	77.4 (66.0 - 88.9)	92.3 (88.3 - 96.2)	88.1 (66.6 - 100.0)	94.4 (84.0 - 100.0)
	80-99	83.0 (62.8 - 100.0)	95.4 (69.3 - 100.0)	68.4 (39.2 - 97.6)	67.4 (38.0 - 96.8)	84.3 (35.4 - 100.0)	68.3 (41.9 - 94.7)	79.3 (66.5 - 92.0)	100.0 (37.6 - 100.0)	49.4 (22.9 - 75.9)
Stage II	All ages	79.4 (73.6 - 85.1)	80.5 (76.2 - 84.9)	72.1 (62.4 - 81.8)	88.2 (79.6 - 96.9)	79.6 (70.8 - 88.3)	66.1 (55.3 - 76.8)	75.9 (72.0 - 79.8)	87.9 (73.1 - 100.0)	79.3 (70.1 - 88.5)
	15-49	84.0 (70.1 - 97.9)	83.2 (72.6 - 93.9)	55.2 (20.2 - 90.1)	85.1 (64.2 - 100.0)	100.0 (100.0 - 100.0)	71.8 (43.9 - 99.8)	88.4 (81.1 - 95.8)	100.0 (100.0 - 100.0)	83.4 (60.6 - 100.0)
	50-64	88.1 (81.5 - 94.7)	86.2 (81.0 - 91.5)	83.0 (70.8 - 95.2)	95.0 (87.6 - 100.0)	85.5 (75.1 - 95.8)	76.4 (64.0 - 88.7)	82.7 (77.5 - 87.9)	88.8 (68.6 - 100.0)	96.8 (88.8 - 100.0)
	65-79	86.0 (77.5 - 94.5)	83.9 (78.0 - 89.8)	74.3 (59.6 - 88.9)	84.0 (70.4 - 97.6)	80.6 (66.6 - 94.6)	75.7 (62.9 - 88.5)	73.8 (68.0 - 79.6)	83.9 (58.8 - 100.0)	86.0 (73.5 - 98.5)
	80-99	40.8 (23.6 - 58.0)	62.3 (47.1 - 77.5)	60.9 (34.0 - 87.9)	86.4 (55.0 - 100.0)	45.6 (7.8 - 83.4)	29.7 (0.0 - 61.8)	60.7 (47.9 - 73.5)	73.4 (3.7 - 100.0)	36.3 (13.1 - 59.4)
Stage III	All ages	66.7 (61.6 - 71.8)	74.0 (69.5 - 78.5)	73.6 (66.7 - 80.5)	70.9 (61.6 - 80.2)	71.4 (61.7 - 81.0)	69.6 (61.0 - 78.1)	72.1 (69.0 - 75.2)	66.6 (46.0 - 87.2)	71.5 (62.4 - 80.7)
	15-49	85.8 (77.2 - 94.5)	83.6 (74.7 - 92.5)	80.0 (66.8 - 93.2)	74.1 (54.5 - 93.6)	81.8 (67.8 - 95.9)	85.7 (71.8 - 99.6)	84.2 (78.8 - 89.6)	96.7 (69.2 - 100.0)	91.7 (80.0 - 100.0)
	50-64	73.7 (68.2 - 79.3)	78.4 (73.1 - 83.6)	75.5 (67.1 - 83.8)	89.4 (81.6 - 97.2)	78.0 (68.5 - 87.6)	80.8 (71.9 - 89.7)	83.7 (80.3 - 87.1)	62.1 (38.0 - 86.1)	89.6 (81.6 - 97.5)
	65-79	68.5 (61.2 - 75.7)	78.5 (72.7 - 84.4)	71.5 (61.4 - 81.6)	64.2 (50.8 - 77.7)	70.1 (56.7 - 83.5)	76.0 (65.5 - 86.5)	72.0 (67.6 - 76.5)	63.8 (33.9 - 93.7)	67.8 (55.8 - 79.9)
	80-99	38.2 (20.9 - 55.5)	52.3 (38.9 - 65.7)	76.0 (47.3 - 100.0)	47.1 (12.8 - 81.5)	54.1 (7.8 - 100.0)	19.6 (0.0 - 43.2)	46.5 (36.4 - 56.7)	56.8 (0.0 - 100.0)	43.9 (18.1 - 69.7)
Stage IV	All ages	13.5 (9.6 - 17.5)	13.5 (10.3 - 16.8)	14.9 (8.6 - 21.2)	13.8 (7.3 - 20.3)	9.7 (3.7 - 15.6)	8.2 (3.5 - 12.8)	13.8 (11.0 - 16.7)	15.9 (0.9 - 30.9)	15.0 (8.3 - 21.6)
	15-49	28.7 (14.7 - 42.7)	23.2 (7.7 - 38.8)	*	35.6 (3.7 - 67.4)	14.7 (0.0 - 31.2)	12.8 (0.0 - 27.3)	34.7 (23.0 - 46.5)	*	26.7 (2.0 - 51.3)
	50-64	16.2 (9.7 - 22.7)	19.0 (12.7 - 25.3)	14.2 (5.5 - 22.9)	14.9 (4.4 - 25.4)	11.2 (0.7 - 21.8)	13.8 (4.0 - 23.6)	19.5 (14.5 - 24.5)	37.9 (0.0 - 75.8)	24.1 (10.3 - 38.0)
	65-79	12.4 (5.9 - 19.0)	12.6 (7.6 - 17.7)	15.2 (4.4 - 26.0)	13.5 (4.5 - 22.5)	7.5 (0.0 - 16.4)	8.1 (1.0 - 15.3)	10.2 (6.3 - 14.2)	*	7.9 (0.8 - 15.0)
	80-99	*	2.7 (0.0 - 7.9)	*	2.4 (0.0 - 8.7)	4.8 (0.0 - 15.8)	*	2.9 (0.0 - 5.9)	*	9.1 (0.0 - 21.9)
<b>Mapped SEER stage<sup>¶</sup></b>										
Localised	All ages	89.5 (84.8 - 94.1)	89.1 (85.7 - 92.5)	86.1 (79.9 - 92.4)	88.6 (81.7 - 95.4)	98.0 (90.2 - 100.0)	81.0 (72.7 - 89.3)	89.6 (87.1 - 92.1)	95.2 (85.5 - 100.0)	83.9 (75.9 - 91.9)
	15-49	96.1 (90.8 - 100.0)	92.6 (85.4 - 99.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	87.5 (70.1 - 100.0)	95.5 (92.3 - 98.8)	80.9 (45.7 - 100.0)	85.3 (65.2 - 100.0)
	50-64	93.6 (89.5 - 97.6)	93.5 (89.5 - 97.6)	91.7 (85.0 - 98.5)	90.2 (81.8 - 98.6)	92.9 (83.4 - 100.0)	97.9 (92.2 - 100.0)	94.7 (92.3 - 97.1)	91.9 (79.4 - 100.0)	93.0 (84.6 - 100.0)
	65-79	95.3 (89.7 - 100.0)	90.1 (85.2 - 95.0)	82.3 (72.4 - 92.2)	87.4 (76.9 - 98.0)	100.0 (90.2 - 100.0)	79.3 (69.0 - 89.7)	89.5 (85.8 - 93.1)	96.1 (79.7 - 100.0)	94.1 (84.0 - 100.0)
	80-99	66.5 (49.7 - 83.2)	75.5 (60.9 - 90.1)	74.7 (49.3 - 100.0)	75.2 (45.8 - 100.0)	100.0 (53.5 - 100.0)	62.1 (36.0 - 88.3)	77.3 (67.8 - 86.8)	100.0 (55.7 - 100.0)	46.5 (22.5 - 70.5)
Regional	All ages	69.2 (65.1 - 73.3)	73.5 (70.2 - 76.7)	72.3 (66.3 - 78.2)	72.4 (63.4 - 81.4)	66.9 (56.6 - 77.3)	68.9 (62.3 - 75.4)	72.7 (69.9 - 75.6)	64.2 (49.4 - 79.0)	73.6 (65.9 - 81.2)
	15-49	84.9 (76.8 - 93.0)	81.7 (73.8 - 89.7)	71.8 (58.3 - 85.3)	65.8 (45.7 - 85.9)	85.1 (68.3 - 100.0)	82.6 (69.2 - 95.9)	84.9 (79.9 - 90.0)	100.0 (100.0 - 100.0)	92.4 (77.2 - 100.0)
	50-64	77.3 (72.4 - 82.2)	77.7 (73.2 - 82.1)	76.3 (68.9 - 83.7)	92.1 (84.7 - 99.5)	78.6 (67.6 - 89.6)	78.5 (70.8 - 86.1)	83.0 (80.1 - 85.9)	65.7 (45.6 - 85.9)	89.6 (81.2 - 98.1)
	65-79	69.9 (63.7 - 76.2)	77.5 (73.1 - 82.0)	73.1 (64.0 - 82.1)	63.3 (50.2 - 76.3)	67.2 (53.1 - 81.3)	74.9 (66.5 - 83.3)	72.5 (68.2 - 76.8)	61.5 (38.6 - 84.3)	70.2 (58.5 - 82.0)
	80-99	41.4 (27.5 - 55.4)	53.2 (42.4 - 64.0)	64.7 (43.8 - 85.6)	53.5 (15.5 - 91.5)	20.4 (0.0 - 57.9)	27.8 (7.8 - 47.8)	50.2 (41.3 - 59.0)	44.7 (2.0 - 87.3)	36.5 (14.4 - 58.7)
Distant	All ages	15.3 (11.4 - 19.1)	13.1 (9.4 - 16.9)	17.1 (11.0 - 23.2)	17.1 (9.5 - 24.8)	10.2 (2.9 - 17.5)	9.0 (4.3 - 13.8)	15.0 (11.6 - 18.4)	16.2 (0.0 - 32.4)	23.0 (12.8 - 33.3)
	15-49	26.7 (13.7 - 39.6)	22.5 (9.2 - 35.8)	36.4 (14.9 - 57.9)	39.0 (2.0 - 76.1)	10.2 (0.0 - 25.9)	14.5 (0.0 - 29.3)	35.3 (21.0 - 49.7)	*	45.6 (4.7 - 86.5)
	50-64	18.7 (12.3 - 25.1)	18.6 (12.2 - 25.0)	17.1 (8.0 - 26.1)	18.5 (4.3 - 32.7)	16.8 (1.7 - 31.8)	13.3 (3.8 - 22.9)	21.3 (15.7 - 26.8)	48.6 (11.1 - 86.0)	26.5 (9.5 - 43.4)
	65-79	15.6 (8.8 - 22.5)	11.9 (5.8 - 18.0)	13.8 (4.4 - 23.3)	16.4 (5.4 - 27.3)	12.0 (0.0 - 24.8)	10.1 (2.3 - 17.9)	12.0 (7.5 - 16.5)	0.2 (0.0 - 1.6)	11.3 (0.3 - 22.2)
	80-99	3.3 (0.0 - 8.7)	2.5 (0.0 - 6.7)	4.4 (0.0 - 22.0)	3.1 (0.0 - 13.6)	2.8 (0.0 - 13.4)	*	2.8 (0.0 - 5.7)	*	14.3 (0.0 - 34.5)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>§</sup> Model2: Age spline allowing separate models for each stage category

<sup>¶</sup> Not possible to estimate

**Supplementary Table 18A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Canada for colon cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>1</sup>	All ages	82.2 (81.0 - 83.3)	83.6 (82.7 - 84.4)	81.5 (79.5 - 83.2)	84.1 (82.0 - 86.0)	84.7 (82.5 - 86.6)	78.6 (76.6 - 80.5)	84.2 (83.6 - 84.7)	84.0 (78.9 - 87.9)	82.5 (80.6 - 84.2)
	15-49	89.2 (85.6 - 92.0)	90.7 (87.7 - 93.0)	87.6 (80.9 - 92.1)	91.6 (82.0 - 96.2)	91.7 (83.1 - 96.0)	89.1 (80.5 - 94.0)	91.2 (89.6 - 92.7)	93.4 (60.1 - 99.1)	93.1 (87.0 - 96.4)
	50-64	87.8 (85.9 - 89.5)	87.7 (86.1 - 89.2)	86.4 (82.8 - 89.2)	91.8 (88.1 - 94.3)	88.3 (84.6 - 91.2)	84.0 (80.3 - 87.1)	89.0 (88.0 - 89.9)	90.2 (80.7 - 95.2)	88.8 (85.6 - 91.3)
	65-79	82.3 (80.3 - 84.1)	84.6 (83.2 - 85.9)	82.2 (79.1 - 85.0)	85.5 (82.3 - 88.2)	82.9 (79.5 - 85.7)	79.7 (76.7 - 82.4)	84.0 (83.0 - 84.9)	82.2 (74.8 - 87.6)	82.3 (79.1 - 85.1)
	80-99	68.0 (64.7 - 71.1)	69.3 (67.0 - 71.5)	68.2 (63.3 - 72.6)	63.3 (57.3 - 68.6)	76.7 (69.3 - 82.6)	60.4 (55.3 - 65.1)	71.7 (70.2 - 73.2)	74.2 (59.7 - 84.2)	66.0 (60.9 - 70.5)
<b>TNM Stage<sup>2</sup></b>										
Stage I	All ages	96.3 (94.6 - 97.5)	59.9 (50.4 - 68.1)	50.9 (48.3 - 53.4)	89.0 (85.7 - 91.6)	97.4 (94.4 - 98.8)	98.0 (93.3 - 99.4)	65.8 (51.4 - 76.9)	43.0 (39.0 - 46.9)	91.0 (90.1 - 91.9)
	15-49	98.4 (93.1 - 99.6)	100.0 (100.0 - 100.0)	67.5 (58.2 - 75.2)	97.8 (82.7 - 99.7)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	82.9 (46.6 - 95.5)	67.3 (51.1 - 79.2)	97.7 (95.2 - 98.9)
	50-64	98.7 (95.8 - 99.6)	69.9 (37.9 - 87.6)	67.0 (56.0 - 65.1)	91.6 (85.8 - 95.2)	100.0 (100.0 - 100.0)	99.4 (64.1 - 100.0)	100.0 (100.0 - 100.0)	55.0 (47.7 - 61.6)	95.2 (93.7 - 96.3)
	65-79	97.8 (94.6 - 99.1)	50.5 (34.7 - 64.3)	48.8 (44.7 - 52.7)	89.8 (84.4 - 93.4)	98.3 (90.3 - 99.7)	96.9 (88.1 - 99.2)	41.9 (21.7 - 60.9)	37.6 (31.7 - 43.5)	90.5 (88.8 - 91.8)
	80-99	87.3 (79.7 - 92.2)	34.3 (24.2 - 44.6)	25.2 (20.8 - 30.0)	75.2 (63.3 - 83.7)	87.6 (75.4 - 94.0)	94.7 (62.2 - 99.4)	64.7 (33.9 - 83.9)	20.1 (14.0 - 27.0)	80.7 (77.7 - 83.3)
Stage II	All ages	96.3 (94.7 - 97.4)	98.1 (96.8 - 98.9)	77.2 (73.9 - 80.1)	41.0 (35.8 - 46.2)	92.0 (88.4 - 94.6)	95.9 (92.4 - 97.8)	90.1 (87.4 - 92.3)	34.7 (12.2 - 58.8)	50.7 (48.9 - 52.5)
	15-49	98.4 (87.3 - 99.8)	98.6 (88.7 - 99.8)	97.7 (83.4 - 99.7)	59.8 (41.9 - 73.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	70.3 (64.8 - 75.2)
	50-64	98.5 (95.5 - 99.5)	98.9 (96.5 - 99.7)	94.4 (87.8 - 97.5)	52.6 (42.6 - 61.7)	97.6 (90.2 - 99.4)	98.0 (87.4 - 99.7)	95.7 (91.0 - 98.0)	34.7 (1.2 - 77.8)	61.8 (58.4 - 64.9)
	65-79	96.8 (93.9 - 98.3)	98.2 (96.0 - 99.2)	74.8 (68.1 - 80.3)	36.3 (28.4 - 44.2)	94.7 (88.2 - 97.7)	94.8 (88.8 - 97.6)	94.5 (90.4 - 96.8)	31.5 (11.0 - 54.6)	47.7 (44.8 - 50.5)
	80-99	89.9 (84.1 - 93.7)	96.1 (90.1 - 98.5)	41.6 (35.7 - 47.3)	23.5 (15.3 - 32.8)	71.3 (58.2 - 80.9)	90.5 (72.8 - 96.9)	66.1 (56.6 - 74.0)	19.1 (9.7 - 30.8)	25.2 (22.0 - 28.5)
Stage III	All ages	91.0 (89.0 - 92.6)	95.3 (94.1 - 96.3)	95.8 (92.7 - 97.6)	36.6 (17.3 - 56.2)	54.7 (49.1 - 59.9)	86.6 (82.1 - 90.1)	91.4 (89.1 - 93.2)	97.0 (96.2 - 97.6)	72.2 (69.9 - 74.4)
	15-49	97.2 (90.9 - 99.1)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	51.4 (0.9 - 91.1)	74.6 (45.5 - 89.6)	100.0 (100.0 - 100.0)	97.2 (79.9 - 99.6)	98.5 (95.8 - 99.5)	94.2 (89.3 - 96.9)
	50-64	94.2 (91.1 - 96.2)	96.9 (94.6 - 98.3)	99.7 (92.9 - 100.0)	100.0 (100.0 - 100.0)	70.2 (58.5 - 79.2)	91.5 (84.1 - 95.6)	93.8 (89.2 - 96.5)	98.9 (97.6 - 99.5)	87.3 (83.5 - 90.2)
	65-79	90.3 (86.9 - 92.9)	95.6 (93.6 - 97.0)	97.2 (90.4 - 99.2)	50.7 (17.9 - 76.5)	51.9 (43.3 - 59.7)	84.3 (77.3 - 89.3)	92.6 (88.8 - 95.1)	96.9 (95.5 - 97.9)	69.8 (65.5 - 73.6)
	80-99	82.9 (76.1 - 88.0)	89.4 (85.4 - 92.3)	84.6 (72.9 - 91.5)	25.0 (12.0 - 40.3)	17.8 (10.1 - 27.2)	74.5 (54.9 - 86.6)	80.4 (73.2 - 85.9)	92.9 (89.8 - 95.1)	40.4 (35.8 - 45.0)
Stage IV	All ages	47.3 (44.2 - 50.3)	90.6 (89.1 - 91.9)	95.0 (92.3 - 96.8)	98.6 (93.2 - 99.7)	68.3 (57.7 - 76.8)	51.1 (44.7 - 57.1)	89.0 (86.5 - 91.1)	94.9 (94.1 - 95.6)	92.0 (79.6 - 97.0)
	15-49	61.7 (51.0 - 70.7)	97.1 (92.2 - 99.0)	94.0 (77.2 - 98.6)	100.0 (100.0 - 100.0)	84.7 (51.2 - 96.0)	74.4 (48.9 - 88.5)	97.2 (80.0 - 99.6)	98.1 (95.3 - 99.3)	85.9 (83.2 - 97.9)
	50-64	61.8 (56.4 - 66.8)	94.1 (91.5 - 95.9)	98.8 (89.9 - 99.9)	99.1 (76.5 - 100.0)	79.1 (47.2 - 92.9)	58.3 (47.0 - 68.0)	96.6 (92.3 - 98.5)	97.5 (96.1 - 98.4)	100.0 (100.0 - 100.0)
	65-79	43.9 (39.0 - 48.6)	91.6 (89.2 - 93.4)	94.5 (89.4 - 97.2)	98.0 (87.9 - 99.7)	75.1 (55.8 - 86.8)	41.9 (21.7 - 60.9)	48.0 (38.5 - 56.8)	88.6 (84.4 - 91.7)	96.8 (80.2 - 99.6)
	80-99	20.2 (15.0 - 25.9)	78.9 (74.3 - 82.8)	89.3 (80.7 - 94.2)	98.0 (27.6 - 100.0)	25.9 (12.6 - 41.5)	26.0 (12.8 - 41.5)	69.5 (61.1 - 76.5)	88.1 (85.7 - 90.2)	77.0 (44.2 - 92.0)
Missing	All ages	59.9 (50.4 - 68.1)	77.2 (73.9 - 80.1)	36.6 (17.3 - 56.2)	68.3 (57.7 - 76.8)	65.8 (51.4 - 76.9)	34.7 (12.2 - 58.8)	72.2 (69.9 - 74.4)	29.1 (2.2 - 67.1)	53.3 (41.0 - 64.1)
	15-49	100.0 (100.0 - 100.0)	97.7 (83.4 - 99.7)	51.4 (0.9 - 91.1)	84.7 (51.2 - 96.0)	82.9 (46.6 - 95.5)	100.0 (100.0 - 100.0)	94.2 (89.3 - 96.9)	*	100.0 (100.0 - 100.0)
	50-64	69.9 (37.9 - 87.6)	94.4 (87.8 - 97.5)	100.0 (100.0 - 100.0)	79.1 (47.2 - 92.9)	100.0 (100.0 - 100.0)	34.7 (1.2 - 77.8)	87.3 (83.5 - 90.2)	51.8 (0.8 - 91.3)	60.4 (32.1 - 80.0)
	65-79	50.5 (34.7 - 64.3)	74.8 (68.1 - 80.3)	50.7 (17.9 - 76.5)	75.1 (55.8 - 86.8)	41.9 (21.7 - 60.9)	31.5 (11.0 - 54.6)	69.8 (65.5 - 73.6)	26.7 (0.5 - 72.3)	34.2 (17.2 - 52.0)
	80-99	34.3 (24.2 - 44.6)	41.6 (35.7 - 47.3)	25.0 (12.0 - 40.3)	25.9 (12.6 - 41.5)	64.7 (33.9 - 83.9)	19.1 (9.7 - 30.8)	40.4 (35.8 - 45.0)	25.5 (7.1 - 49.3)	38.8 (24.9 - 52.6)
<b>Mapped SEER stage<sup>3</sup></b>										
Localised	All ages	96.8 (95.5 - 97.7)	97.2 (96.2 - 97.9)	96.3 (94.1 - 97.7)	98.2 (95.8 - 99.3)	97.9 (95.2 - 99.1)	90.7 (88.4 - 92.5)	96.9 (96.3 - 97.4)	95.3 (88.5 - 98.1)	95.5 (93.9 - 96.7)
	15-49	98.6 (93.9 - 99.7)	99.4 (93.7 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	98.8 (96.9 - 99.5)	90.1 (46.9 - 98.6)	96.0 (87.5 - 98.7)
	50-64	98.9 (96.8 - 99.6)	98.5 (97.0 - 99.3)	98.8 (93.1 - 99.8)	99.8 (0.1 - 100.0)	99.9 (0.0 - 100.0)	95.1 (91.0 - 97.3)	98.7 (97.8 - 99.3)	97.0 (85.0 - 99.4)	99.0 (96.2 - 99.8)
	65-79	97.9 (95.6 - 99.0)	97.2 (95.6 - 98.2)	97.7 (93.0 - 99.3)	98.9 (91.8 - 99.9)	95.7 (91.1 - 98.0)	94.3 (90.8 - 96.5)	96.8 (95.8 - 97.6)	98.5 (83.6 - 99.9)	96.1 (93.5 - 97.7)
	80-99	89.5 (84.2 - 93.1)	93.0 (89.4 - 95.4)	87.4 (79.4 - 92.4)	92.4 (82.3 - 96.8)	97.8 (57.2 - 99.9)	71.1 (63.4 - 77.4)	93.0 (90.9 - 94.6)	90.6 (68.2 - 97.5)	87.5 (81.8 - 91.5)
Regional	All ages	92.4 (90.9 - 93.7)	91.8 (90.7 - 92.8)	90.4 (87.9 - 92.5)	90.9 (87.1 - 93.6)	87.6 (83.8 - 90.6)	90.0 (88.2 - 91.5)	91.8 (91.1 - 92.5)	93.3 (88.1 - 96.3)	91.6 (89.5 - 93.2)
	15-49	97.4 (92.7 - 99.1)	98.0 (94.4 - 99.3)	94.8 (84.0 - 98.4)	96.0 (73.2 - 99.5)	100.0 (100.0 - 100.0)	97.0 (87.9 - 99.3)	97.3 (95.2 - 98.4)	100.0 (100.0 - 100.0)	98.6 (87.4 - 99.9)
	50-64	95.3 (92.8 - 96.9)	94.8 (92.8 - 96.2)	93.9 (89.4 - 96.5)	98.2 (91.8 - 99.6)	92.3 (85.9 - 95.9)	96.8 (93.9 - 98.4)	95.5 (94.3 - 96.5)	98.5 (78.1 - 99.9)	96.8 (93.5 - 98.4)
	65-79	92.3 (89.6 - 94.3)	92.8 (91.0 - 94.3)	90.2 (86.0 - 93.2)	93.5 (87.6 - 96.7)	85.0 (79.0 - 89.5)	89.6 (86.6 - 92.0)	91.8 (90.5 - 92.9)	87.7 (77.4 - 93.5)	90.8 (87.3 - 93.4)
	80-99	84.0 (78.9 - 88.0)	81.5 (77.9 - 84.5)	80.8 (72.4 - 86.8)	71.2 (59.4 - 80.1)	76.6 (60.7 - 86.7)	73.7 (67.8 - 78.8)	82.0 (79.7 - 84.1)	90.5 (69.3 - 97.3)	81.2 (74.6 - 86.2)
Distant	All ages	49.3 (46.3 - 52.2)	51.6 (49.1 - 54.1)	43.1 (37.8 - 48.2)	56.1 (50.5 - 61.2)	51.2 (44.9 - 57.1)	45.3 (41.4 - 49.1)	52.5 (50.8 - 54.2)	51.3 (42.5 - 59.4)	50.3 (46.8 - 53.8)
	15-49	62.5 (51.9 - 71.4)	68.4 (59.3 - 75.9)	60.8 (43.0 - 74.5)	76.1 (48.0 - 90.3)	70.7 (45.9 - 85.6)	69.4 (53.8 - 80.6)	71.8 (66.4 - 76.4)	89.7 (45.1 - 98.5)	76.8 (64.5 - 85.4)
	50-64	62.9 (57.7 - 67.7)	61.6 (57.0 - 65.9)	54.6 (44.8 - 63.4)	72.0 (60.5 - 80.7)	59.1 (48.1 - 68.6)	55.7 (48.7 - 62.1)	63.4 (60.2 - 66.4)	57.2 (37.9 - 72.5)	62.1 (55.5 - 68.0)
	65-79	46.8 (42.0 - 51.4)	49.4 (45.4 - 53.3)	37.5 (29.7 - 45.4)	52.5 (44.0 - 60.3)	49.5 (40.3 - 58.1)	41.6 (35.8 - 47.4)	49.3 (46.5 - 52.1)	46.6 (34.4 - 57.9)	44.0 (38.2 - 49.7)
	80-99	22.3 (17.1 - 28.0)	25.9 (21.5 - 30.6)	26.9 (18.4 - 36.1)	19.9 (11.8 - 29.5)	24.9 (12.2 - 39.9)	20.9 (14.9 - 27.6)	27.8 (24.6 - 31.1)	23.1 (9.9 - 39.5)	24.9 (18.8 - 31.4)
Missing	All ages	53.5 (41.5 - 64.1)	71.1 (66.0 - 75.5)	29.2 (10.8 - 50.6)	65.8 (53.9 - 75.2)	46.6 (25.0 - 65.7)	25.6 (7.0 - 49.7)	71.4 (69.1 - 73.7)	53.8 (32.6 - 71.0)	39.0 (19.5 - 58.1)
	15-49	100.0 (100.0 - 100.0)	89.0 (42.9 - 98.4)	51.4 (0.9 - 91.1)	91.8 (53.5 - 98.8)	*	100.0 (100.0 - 100.0)	94.1 (88.9 - 96.9)	*	*
	50-64	70.0 (23.2 - 91.7)	86.4 (71.6 - 93.8)	*	68.7 (36.1 - 87.1)	100.0 (100.0 - 100.0)	7.0 (0.0 - 57.1)	87.1 (83.2 - 90.2)	100.0 (100.0 - 100.0)	57.1 (28.3 - 78.0)
	65-79	31.7 (16.3 - 48.2)	68.5 (59.7 - 75.7)	50.2 (14.3 - 78.3)	77.6 (58.1 - 88.8)	12.3 (0.8 - 40.4)	22.6 (3.1 - 52.7)	68.6 (64.2 - 72.5)	52.0 (0.7 - 91.7)	18.3 (4.6 - 39.2)
	80-99	35.0 (23.9 - 46.4)	38.9 (32.7 - 45.1)	26.2 (12.4 - 42.4)	27.4 (13.3 - 43.6)	36.2 (7.3 - 67.4)	22.2 (11.1 - 35.8)	39.3 (34.6 - 43.9)	20.0 (4.3 - 43.8)	39.9 (26.6 - 52.8)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>2</sup> Model2: Age spline using separate models for each stage category

\* Not possible to estimate

**Supplementary Table 18B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Canada for colon cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>†</sup>	All ages	65.1 (63.5 - 66.7)	65.9 (64.6 - 67.2)	64.2 (61.6 - 66.7)	68.3 (65.2 - 71.2)	73.4 (70.2 - 76.4)	62.2 (59.6 - 64.7)	68.3 (67.4 - 69.1)	62.0 (54.7 - 68.6)	64.7 (61.9 - 67.3)
	15-49	72.7 (67.9 - 77.0)	67.2 (62.8 - 71.2)	69.8 (61.5 - 76.7)	74.1 (63.0 - 82.3)	72.3 (60.6 - 81.1)	62.5 (52.5 - 70.9)	72.7 (70.1 - 75.1)	49.8 (24.3 - 70.9)	69.6 (60.3 - 77.1)
	50-64	68.7 (66.0 - 71.1)	68.1 (65.9 - 70.3)	68.3 (64.0 - 72.3)	70.1 (65.0 - 74.6)	72.8 (67.8 - 77.1)	66.3 (61.9 - 70.3)	71.3 (69.9 - 72.7)	75.2 (62.3 - 84.2)	71.5 (67.1 - 75.4)
	65-79	66.3 (63.7 - 68.8)	68.1 (66.1 - 70.0)	64.3 (60.3 - 67.9)	71.0 (66.4 - 75.0)	72.8 (68.2 - 76.9)	64.6 (60.7 - 68.2)	67.7 (66.4 - 69.0)	60.2 (50.6 - 68.6)	65.1 (60.9 - 69.0)
	80-99	51.6 (46.7 - 56.2)	56.1 (52.6 - 59.5)	53.5 (46.7 - 59.9)	57.8 (49.1 - 65.5)	76.7 (62.7 - 86.0)	48.3 (41.6 - 54.7)	61.6 (59.1 - 64.0)	53.2 (31.5 - 70.8)	49.5 (42.3 - 56.3)
<b>TNM Stage<sup>‡</sup></b>										
Stage I	All ages	96.2 (90.1 - 98.5)	94.2 (91.9 - 95.9)	53.3 (41.0 - 64.1)	13.1 (11.1 - 15.4)	68.1 (64.9 - 71.1)	86.2 (81.4 - 89.8)	100.0 (100.0 - 100.0)	48.5 (36.3 - 59.7)	9.9 (6.0 - 14.9)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	22.5 (15.3 - 30.6)	70.9 (60.2 - 79.2)	83.7 (66.0 - 92.7)	93.8 (53.7 - 99.3)	85.4 (50.5 - 96.4)	11.1 (1.1 - 34.0)
	50-64	97.8 (75.5 - 99.8)	98.8 (94.4 - 99.8)	60.4 (32.1 - 80.0)	18.1 (14.3 - 22.4)	75.8 (70.5 - 80.2)	92.6 (84.8 - 96.5)	96.9 (79.7 - 99.6)	62.5 (33.9 - 81.5)	13.6 (7.0 - 22.5)
	65-79	93.2 (82.7 - 97.5)	95.4 (91.3 - 97.6)	34.2 (17.2 - 52.0)	10.6 (7.7 - 14.1)	69.0 (64.2 - 73.3)	81.7 (74.1 - 87.3)	99.6 (0.0 - 100.0)	37.9 (18.8 - 56.8)	7.5 (3.0 - 14.8)
	80-99	97.7 (9.2 - 100.0)	80.0 (70.9 - 86.6)	38.8 (24.9 - 52.6)	2.0 (0.4 - 6.1)	51.6 (41.5 - 60.7)	84.4 (65.4 - 93.4)	100.0 (100.0 - 100.0)	15.5 (4.8 - 31.8)	*
Stage II	All ages	94.0 (88.1 - 97.0)	94.1 (91.5 - 95.9)	92.2 (88.6 - 94.8)	28.1 (13.9 - 44.2)	13.2 (11.1 - 15.5)	67.6 (62.6 - 72.1)	92.8 (86.5 - 96.2)	91.3 (78.5 - 96.6)	54.1 (38.9 - 67.0)
	15-49	100.0 (100.0 - 100.0)	94.4 (78.5 - 98.6)	98.3 (91.1 - 99.7)	74.5 (28.6 - 93.3)	20.1 (13.1 - 28.2)	81.4 (66.3 - 90.1)	100.0 (100.0 - 100.0)	*	69.7 (29.2 - 89.9)
	50-64	97.8 (76.5 - 99.8)	97.0 (92.3 - 98.9)	94.7 (90.2 - 97.2)	34.8 (14.3 - 56.4)	16.3 (12.6 - 20.4)	70.4 (62.4 - 77.0)	92.2 (82.2 - 96.7)	93.5 (74.1 - 98.5)	90.2 (47.1 - 98.6)
	65-79	90.1 (77.4 - 95.9)	94.5 (90.5 - 96.8)	95.2 (88.1 - 98.1)	24.2 (11.3 - 39.8)	12.3 (8.9 - 16.4)	65.1 (57.4 - 71.7)	91.8 (81.5 - 96.5)	91.1 (70.8 - 97.5)	36.3 (17.9 - 55.1)
	80-99	86.4 (62.4 - 95.6)	89.6 (82.2 - 94.1)	77.9 (63.0 - 87.4)	3.1 (0.3 - 12.1)	4.0 (1.9 - 7.2)	55.8 (40.4 - 68.7)	92.2 (46.2 - 99.2)	76.8 (14.2 - 96.5)	48.8 (18.8 - 73.6)
Stage III	All ages	50.3 (41.2 - 58.7)	91.3 (88.4 - 93.4)	89.7 (86.7 - 92.1)	95.3 (90.3 - 97.7)	63.6 (60.2 - 66.9)	12.0 (9.1 - 15.3)	80.0 (74.3 - 84.5)	91.5 (84.0 - 95.5)	87.8 (83.2 - 91.2)
	15-49	89.7 (45.1 - 98.5)	97.8 (82.8 - 99.7)	94.7 (84.1 - 98.3)	93.2 (82.7 - 97.4)	79.8 (69.3 - 87.0)	26.4 (13.9 - 40.8)	97.7 (68.4 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	54.2 (34.5 - 70.3)	97.5 (93.3 - 99.1)	90.2 (85.8 - 93.3)	96.2 (91.1 - 98.4)	79.6 (73.4 - 84.6)	15.6 (10.0 - 22.2)	78.0 (68.2 - 85.1)	91.9 (79.7 - 96.9)	93.4 (86.5 - 96.8)
	65-79	47.2 (34.6 - 58.7)	90.0 (85.1 - 93.4)	88.8 (83.9 - 92.2)	98.4 (81.9 - 99.9)	63.1 (56.7 - 68.9)	8.5 (5.2 - 12.9)	80.3 (70.1 - 87.4)	92.0 (77.4 - 97.3)	91.0 (83.3 - 95.2)
	80-99	21.1 (8.3 - 37.7)	81.0 (71.8 - 87.5)	87.7 (74.0 - 94.5)	87.2 (59.9 - 96.4)	30.2 (24.6 - 35.9)	*	65.8 (44.8 - 80.4)	80.1 (32.0 - 95.8)	64.1 (50.3 - 74.9)
Stage IV	All ages	29.1 (2.2 - 67.1)	49.3 (45.4 - 53.2)	71.2 (67.9 - 74.2)	87.0 (83.9 - 89.5)	89.6 (83.5 - 93.6)	21.2 (7.6 - 39.2)	12.3 (8.3 - 17.1)	60.8 (52.1 - 68.5)	85.4 (81.6 - 88.4)
	15-49	*	78.2 (64.0 - 87.3)	87.7 (79.4 - 92.8)	95.4 (86.6 - 98.5)	94.9 (59.4 - 99.5)	51.6 (0.8 - 91.3)	19.4 (6.9 - 36.7)	74.7 (43.8 - 90.2)	88.0 (71.9 - 95.2)
	50-64	51.8 (0.8 - 91.3)	60.4 (52.9 - 67.1)	78.4 (73.6 - 82.5)	87.2 (81.9 - 91.0)	96.7 (85.0 - 99.3)	83.3 (13.6 - 98.3)	18.8 (11.5 - 27.5)	65.8 (55.0 - 74.6)	85.7 (79.3 - 90.3)
	65-79	26.7 (0.5 - 72.3)	43.2 (36.7 - 49.6)	70.5 (65.4 - 75.0)	84.8 (79.9 - 88.6)	96.5 (79.4 - 99.5)	17.7 (3.5 - 41.0)	13.7 (8.1 - 20.8)	60.8 (51.1 - 68.8)	84.4 (78.7 - 88.8)
	80-99	25.5 (7.1 - 49.3)	24.0 (17.5 - 31.0)	49.6 (39.4 - 58.9)	85.9 (74.5 - 92.5)	64.0 (47.3 - 76.6)	9.8 (1.8 - 26.4)	2.0 (0.4 - 6.6)	58.5 (25.7 - 80.9)	80.5 (66.6 - 89.1)
Missing	All ages	28.1 (13.9 - 44.2)	63.6 (60.2 - 66.9)	21.2 (7.6 - 39.2)	48.5 (36.3 - 59.7)	54.1 (38.9 - 67.0)	31.2 (10.7 - 54.5)	55.7 (53.3 - 58.0)	12.4 (0.8 - 40.3)	33.5 (22.8 - 44.5)
	15-49	74.5 (28.6 - 93.3)	79.8 (69.3 - 87.0)	51.6 (0.8 - 91.3)	85.4 (50.5 - 96.4)	69.7 (29.2 - 89.9)	100.0 (100.0 - 100.0)	78.2 (72.6 - 82.8)	100.0 (100.0 - 100.0)	76.0 (11.9 - 96.5)
	50-64	34.8 (14.3 - 56.4)	79.6 (73.4 - 84.6)	83.3 (13.6 - 98.3)	62.5 (33.9 - 81.5)	90.2 (47.1 - 98.6)	32.6 (1.2 - 75.3)	70.7 (66.6 - 74.5)	38.4 (1.3 - 81.1)	42.0 (19.0 - 63.6)
	65-79	24.2 (11.3 - 39.8)	63.1 (56.7 - 68.9)	17.7 (3.5 - 41.0)	37.9 (18.8 - 56.8)	36.3 (17.9 - 55.1)	26.0 (8.3 - 48.3)	52.4 (48.2 - 56.4)	19.2 (0.5 - 60.3)	12.3 (3.9 - 25.9)
	80-99	3.1 (0.3 - 12.1)	30.2 (24.6 - 35.9)	9.8 (1.8 - 26.4)	15.5 (4.8 - 31.8)	48.8 (18.8 - 73.6)	6.1 (1.4 - 16.0)	26.1 (21.9 - 30.6)	8.4 (0.5 - 32.1)	12.6 (3.3 - 28.4)
<b>Mapped SEER stage<sup>§</sup></b>										
Localised	All ages	92.5 (89.8 - 94.6)	93.0 (90.1 - 95.0)	90.5 (86.0 - 93.5)	97.5 (89.9 - 99.4)	92.9 (85.7 - 96.5)	88.7 (84.8 - 91.6)	93.9 (91.5 - 95.7)	85.5 (75.5 - 91.7)	89.8 (86.5 - 92.3)
	15-49	95.1 (88.6 - 97.9)	94.5 (88.7 - 97.4)	93.3 (77.5 - 98.1)	96.6 (65.2 - 99.7)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	93.2 (79.7 - 97.8)	69.1 (30.4 - 89.2)	91.2 (79.5 - 96.4)
	50-64	94.2 (90.8 - 96.4)	94.0 (90.4 - 96.3)	95.5 (88.8 - 98.2)	95.1 (87.1 - 98.2)	95.1 (84.1 - 98.5)	92.3 (86.4 - 95.7)	96.0 (93.8 - 97.5)	86.8 (70.8 - 94.4)	95.1 (90.5 - 97.5)
	65-79	93.8 (89.3 - 96.4)	92.3 (87.9 - 95.2)	91.3 (84.0 - 95.3)	96.3 (83.7 - 99.2)	92.3 (80.4 - 97.1)	90.3 (83.8 - 94.3)	91.3 (88.0 - 93.8)	92.9 (76.9 - 98.0)	89.1 (84.2 - 92.6)
	80-99	85.3 (73.6 - 92.1)	91.1 (76.5 - 96.8)	78.9 (63.9 - 88.2)	100.0 (100.0 - 100.0)	80.6 (33.4 - 95.8)	70.4 (58.0 - 79.8)	97.3 (59.6 - 99.9)	75.2 (36.1 - 92.3)	81.0 (69.3 - 88.6)
Regional	All ages	76.8 (74.2 - 79.2)	73.2 (70.6 - 75.7)	72.8 (68.9 - 76.4)	79.7 (74.5 - 84.0)	66.8 (60.2 - 72.5)	76.2 (73.3 - 78.8)	76.1 (73.8 - 78.3)	76.2 (67.1 - 83.1)	74.5 (70.9 - 77.7)
	15-49	90.6 (84.2 - 94.5)	78.3 (70.1 - 84.5)	79.8 (67.1 - 88.0)	96.8 (65.8 - 99.8)	81.2 (54.5 - 93.1)	83.8 (73.0 - 90.5)	82.0 (73.7 - 87.9)	90.9 (43.6 - 98.9)	86.9 (75.1 - 93.3)
	50-64	81.6 (77.6 - 84.9)	78.7 (74.3 - 82.3)	76.8 (70.4 - 82.0)	80.7 (72.3 - 86.7)	71.7 (61.9 - 79.4)	85.7 (81.1 - 89.2)	79.0 (75.2 - 82.2)	81.9 (64.7 - 91.3)	82.7 (77.3 - 87.0)
	65-79	75.8 (71.6 - 79.4)	73.5 (69.6 - 77.0)	70.8 (64.8 - 76.0)	80.2 (71.6 - 86.4)	63.1 (54.2 - 70.8)	73.2 (68.8 - 77.1)	75.5 (71.7 - 79.0)	75.2 (60.6 - 85.0)	69.7 (64.1 - 74.5)
	80-99	61.2 (52.4 - 68.9)	60.9 (52.8 - 68.0)	63.9 (51.5 - 73.9)	64.0 (46.4 - 77.1)	63.6 (35.9 - 81.9)	59.7 (50.7 - 67.6)	70.5 (65.2 - 75.3)	56.9 (31.1 - 76.2)	66.1 (54.8 - 75.3)
Distant	All ages	16.2 (14.0 - 18.5)	14.4 (12.2 - 16.6)	14.3 (11.2 - 17.8)	13.0 (9.0 - 17.9)	9.9 (6.0 - 14.8)	12.8 (10.4 - 15.5)	16.8 (14.8 - 18.9)	8.2 (3.4 - 15.8)	13.4 (10.9 - 16.2)
	15-49	24.1 (16.8 - 32.1)	21.5 (14.3 - 29.7)	30.1 (17.1 - 44.2)	19.2 (7.0 - 36.0)	5.4 (0.3 - 23.5)	23.2 (13.3 - 34.7)	28.3 (22.1 - 34.9)	20.2 (3.2 - 47.6)	20.6 (11.4 - 31.8)
	50-64	20.7 (16.8 - 24.9)	17.0 (13.3 - 21.1)	18.7 (12.8 - 25.5)	20.7 (13.2 - 29.4)	12.8 (6.6 - 21.0)	14.3 (10.1 - 19.3)	20.3 (16.7 - 24.1)	*	19.1 (14.2 - 24.5)
	65-79	15.2 (11.8 - 18.9)	14.1 (10.5 - 18.2)	9.6 (6.0 - 14.1)	14.4 (8.6 - 21.6)	11.4 (5.5 - 19.6)	11.6 (8.1 - 15.8)	15.2 (11.9 - 18.8)	5.5 (1.6 - 12.9)	10.6 (7.1 - 14.9)
	80-99	4.8 (2.1 - 9.1)	4.5 (2.3 - 7.9)	5.6 (1.9 - 12.3)	2.6 (0.5 - 8.0)	*	2.9 (0.8 - 7.2)	*	*	5.2 (1.6 - 12.1)
Missing	All ages	21.6 (11.0 - 34.4)	56.8 (51.9 - 61.4)	22.2 (8.1 - 40.6)	47.0 (34.5 - 58.4)	34.4 (15.7 - 54.1)	6.5 (0.2 - 30.2)	55.4 (52.9 - 57.8)	4.4 (0.0 - 41.9)	24.0 (11.6 - 38.9)
	15-49	100.0 (100.0 - 100.0)	66.7 (41.1 - 83.1)	51.4 (0.9 - 91.1)	92.5 (50.1 - 99.1)	51.8 (0.8 - 91.4)	100.0 (100.0 - 100.0)	78.4 (72.7 - 83.1)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	16.6 (1.0 - 49.8)	69.3 (57.7 - 78.3)	52.1 (0.7 - 91.8)	57.1 (28.0 - 78.2)	90.3 (46.8 - 98.6)	1.0 (0.0 - 26.0)	70.5 (66.2 - 74.3)	64.6 (2.8 - 94.8)	36.6 (13.6 - 60.3)
	65-79	7.2 (1.2 - 20.9)	58.0 (50.0 - 65.2)	19.1 (2.7 - 46.9)	37.2 (17.5 - 57.2)	6.1 (0.2 - 27.6)	12.5 (0.7 - 42.0)	52.1 (47.8 - 56.2)	25.8 (0.8 - 68.4)	4.7 (0.1 - 24.3)
	80-99	*	27.0 (21.3 - 32.9)	7.1 (0.9 - 23.0)	16.4 (5.1 - 33.4)	13.7 (0.2 - 51.9)	2.7 (0.2 - 13.1)	25.5 (21.3 - 30.0)	0.9 (0.0 - 15.0)	9.9 (2.3 - 24.4)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>†</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

<sup>§</sup> Not possible to estimate

**Supplementary Table 19A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Canada for rectal cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	86.3 (84.4 - 88.0)	87.7 (86.2 - 89.0)	84.5 (81.4 - 87.1)	85.3 (81.3 - 88.5)	86.3 (81.9 - 89.7)	81.6 (78.1 - 84.7)	87.0 (86.0 - 88.0)	90.3 (79.6 - 95.6)	84.7 (81.4 - 87.5)
	15-49	94.0 (89.5 - 96.6)	93.9 (90.1 - 96.2)	92.8 (84.4 - 96.8)	97.9 (83.6 - 99.7)	91.4 (75.2 - 97.2)	86.4 (74.5 - 93.0)	96.2 (94.3 - 97.5)	90.2 (46.8 - 98.6)	92.3 (80.4 - 97.1)
	50-64	91.0 (88.5 - 92.9)	91.6 (89.5 - 93.3)	88.5 (83.8 - 91.9)	91.5 (85.6 - 95.1)	94.7 (89.3 - 97.5)	89.3 (84.5 - 92.7)	91.6 (90.3 - 92.8)	89.3 (68.6 - 96.6)	92.4 (87.9 - 95.3)
	65-79	86.9 (83.7 - 89.5)	88.6 (86.4 - 90.5)	83.9 (78.7 - 87.9)	83.3 (77.2 - 87.9)	86.5 (79.7 - 91.1)	82.4 (77.4 - 86.5)	87.4 (85.7 - 88.8)	96.9 (73.3 - 99.7)	85.2 (79.8 - 89.2)
	80-99	71.8 (65.0 - 77.5)	74.8 (70.0 - 78.9)	74.7 (64.6 - 82.3)	70.5 (55.5 - 81.2)	64.0 (46.9 - 76.8)	66.8 (55.2 - 76.0)	73.4 (70.0 - 76.4)	81.0 (36.3 - 95.7)	65.0 (54.3 - 73.9)
<b>TNM Stage<sup>§</sup></b>										
Stage I	All ages	99.4 (88.9 - 100.0)	75.5 (65.6 - 82.9)	57.7 (52.9 - 62.2)	92.4 (87.4 - 95.5)	97.5 (85.5 - 99.6)	97.0 (84.0 - 99.5)	78.1 (56.6 - 89.8)	45.7 (38.3 - 52.8)	93.1 (91.5 - 94.5)
	15-49	100.0 (100.0 - 100.0)	87.1 (56.6 - 96.7)	72.3 (58.8 - 82.0)	97.6 (81.9 - 99.7)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	60.6 (40.3 - 75.9)	97.0 (93.6 - 98.6)
	50-64	98.8 (93.8 - 99.8)	84.1 (65.2 - 93.2)	67.4 (59.3 - 74.3)	97.9 (90.8 - 99.5)	97.5 (73.8 - 99.8)	95.7 (73.8 - 99.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	95.5 (93.4 - 97.0)
	65-79	98.2 (89.6 - 99.7)	74.4 (52.1 - 87.5)	55.7 (48.0 - 62.7)	91.6 (83.4 - 95.9)	96.8 (79.1 - 99.6)	95.6 (64.0 - 99.6)	81.3 (39.5 - 95.5)	45.7 (34.7 - 56.1)	93.1 (90.4 - 95.1)
	80-99	100.0 (100.0 - 100.0)	48.1 (28.8 - 65.1)	35.1 (24.0 - 46.3)	81.1 (59.1 - 92.0)	95.1 (8.6 - 99.9)	91.9 (17.3 - 99.6)	24.2 (1.0 - 64.6)	16.0 (4.9 - 33.0)	87.3 (81.0 - 91.6)
Stage II	All ages	93.5 (89.2 - 96.1)	97.4 (94.5 - 98.8)	87.6 (84.2 - 90.4)	53.8 (45.3 - 61.6)	90.6 (81.5 - 95.4)	94.3 (83.5 - 98.1)	93.9 (89.4 - 96.5)	75.3 (61.2 - 84.9)	60.0 (56.5 - 63.3)
	15-49	91.3 (88.3 - 97.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	78.0 (51.3 - 91.2)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	81.5 (71.5 - 88.3)
	50-64	98.0 (91.8 - 99.5)	97.4 (91.8 - 99.2)	94.3 (88.7 - 97.2)	59.0 (45.9 - 70.0)	98.8 (79.4 - 99.9)	97.5 (73.8 - 99.8)	100.0 (100.0 - 100.0)	99.5 (40.0 - 100.0)	88.1 (36.8 - 98.4)
	65-79	95.4 (87.0 - 98.4)	97.8 (91.9 - 99.4)	87.6 (80.9 - 92.0)	49.6 (36.3 - 61.5)	90.0 (75.3 - 96.2)	91.6 (72.5 - 97.6)	93.5 (86.0 - 97.0)	64.9 (38.4 - 82.3)	59.0 (53.2 - 64.4)
	80-99	80.1 (63.3 - 89.8)	93.6 (78.7 - 98.2)	71.4 (61.6 - 79.1)	37.5 (15.0 - 60.3)	54.1 (15.2 - 81.9)	81.5 (23.5 - 97.1)	83.4 (67.1 - 92.1)	45.0 (19.0 - 68.1)	33.2 (25.8 - 40.8)
Stage III	All ages	94.7 (91.9 - 96.5)	96.0 (93.3 - 97.7)	95.6 (89.7 - 98.2)	69.7 (48.0 - 83.7)	57.8 (45.8 - 68.0)	94.2 (84.2 - 97.9)	91.5 (85.8 - 94.9)	96.8 (95.2 - 97.8)	78.2 (74.4 - 81.5)
	15-49	98.8 (89.3 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	24.2 (0.0 - 81.9)	89.1 (42.9 - 98.4)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.1 (91.9 - 99.9)
	50-64	95.5 (92.0 - 97.5)	96.2 (91.8 - 98.3)	100.0 (100.0 - 100.0)	72.0 (25.7 - 92.4)	59.6 (37.8 - 75.9)	95.4 (84.1 - 98.7)	95.1 (85.6 - 98.4)	96.6 (96.5 - 99.4)	90.8 (86.3 - 93.9)
	65-79	95.0 (90.4 - 97.5)	97.4 (92.6 - 99.1)	95.0 (82.7 - 98.7)	92.3 (35.5 - 99.4)	60.9 (43.8 - 74.3)	93.4 (76.6 - 98.3)	89.2 (80.6 - 94.1)	97.0 (94.5 - 98.3)	77.8 (70.4 - 83.5)
	80-99	88.8 (73.9 - 95.5)	89.6 (77.4 - 95.4)	85.0 (61.4 - 94.7)	47.8 (16.0 - 74.3)	32.6 (8.5 - 60.1)	87.7 (15.8 - 99.1)	87.0 (58.2 - 96.5)	90.9 (83.9 - 94.9)	52.5 (43.7 - 60.5)
Stage IV	All ages	54.7 (48.8 - 60.2)	94.4 (92.1 - 96.1)	93.8 (85.2 - 97.5)	95.1 (87.1 - 98.2)	72.0 (55.9 - 83.1)	54.0 (41.2 - 65.1)	92.4 (88.2 - 95.2)	92.4 (90.2 - 94.2)	96.5 (71.2 - 99.6)
	15-49	82.5 (66.7 - 91.3)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	57.5 (17.5 - 83.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	66.9 (57.9 - 74.4)	97.4 (94.5 - 98.7)	97.2 (72.2 - 99.7)	97.7 (75.0 - 99.8)	91.4 (48.8 - 98.9)	79.0 (58.3 - 90.2)	97.2 (92.0 - 99.1)	94.4 (90.9 - 96.5)	100.0 (100.0 - 100.0)
	65-79	47.0 (37.0 - 56.4)	96.0 (92.5 - 97.9)	93.5 (73.7 - 98.6)	91.4 (77.9 - 96.8)	51.2 (26.4 - 71.4)	51.2 (26.4 - 71.4)	89.6 (82.9 - 93.8)	90.7 (86.7 - 93.5)	96.4 (39.2 - 99.9)
	80-99	34.3 (22.2 - 46.7)	80.3 (69.4 - 87.7)	86.7 (58.7 - 96.2)	95.6 (6.4 - 99.9)	60.8 (29.2 - 81.7)	*	90.0 (66.0 - 97.4)	87.4 (79.3 - 92.5)	81.8 (3.8 - 98.8)
Missing	All ages	75.5 (65.6 - 82.9)	87.6 (84.2 - 90.4)	69.7 (48.0 - 83.7)	72.0 (55.9 - 83.1)	78.1 (56.6 - 89.8)	75.3 (61.2 - 84.9)	78.2 (74.4 - 81.5)	56.9 (12.6 - 85.8)	72.9 (58.7 - 82.9)
	15-49	87.1 (56.6 - 96.7)	100.0 (100.0 - 100.0)	24.2 (0.0 - 81.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	99.1 (91.9 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	84.1 (65.2 - 93.2)	94.3 (88.7 - 97.2)	72.0 (25.7 - 92.4)	91.4 (48.8 - 98.9)	100.0 (100.0 - 100.0)	88.1 (36.8 - 98.4)	90.8 (86.3 - 93.9)	*	82.9 (54.6 - 94.3)
	65-79	74.4 (52.1 - 87.5)	87.6 (80.9 - 92.0)	92.3 (35.5 - 99.4)	51.2 (26.4 - 71.4)	81.3 (39.5 - 95.5)	64.9 (38.4 - 82.3)	77.8 (70.4 - 83.5)	100.0 (100.0 - 100.0)	61.6 (34.9 - 80.0)
	80-99	48.1 (28.8 - 65.1)	71.4 (61.6 - 79.1)	47.8 (16.0 - 74.3)	60.8 (29.2 - 81.7)	24.2 (1.0 - 64.6)	45.0 (19.0 - 68.1)	52.5 (43.7 - 60.5)	48.7 (3.4 - 85.8)	52.2 (22.2 - 75.5)
<b>Mapped SEER stage<sup>¶</sup></b>										
Localised	All ages	98.5 (95.1 - 99.6)	98.0 (96.2 - 99.0)	96.0 (93.1 - 97.7)	95.5 (90.0 - 98.0)	98.4 (86.9 - 99.8)	93.4 (89.4 - 95.9)	96.2 (95.0 - 97.2)	93.7 (82.8 - 97.8)	94.1 (90.5 - 96.4)
	15-49	98.8 (89.4 - 99.9)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	96.7 (76.7 - 99.6)
	50-64	99.3 (94.6 - 99.9)	98.5 (95.6 - 99.5)	99.4 (90.4 - 100.0)	98.8 (77.7 - 99.9)	100.0 (100.0 - 100.0)	98.8 (89.1 - 99.9)	97.8 (96.2 - 98.8)	92.9 (71.7 - 98.4)	98.1 (91.5 - 99.6)
	65-79	98.7 (90.7 - 99.8)	98.0 (94.6 - 99.3)	95.7 (90.3 - 98.1)	90.2 (80.7 - 95.2)	96.9 (77.3 - 99.6)	94.3 (87.8 - 97.4)	96.1 (94.0 - 97.5)	95.9 (70.0 - 99.5)	97.1 (90.2 - 99.1)
	80-99	96.3 (72.6 - 99.6)	95.3 (85.8 - 98.5)	88.2 (75.8 - 94.4)	98.5 (0.0 - 100.0)	97.4 (0.0 - 100.0)	80.4 (65.9 - 89.2)	91.2 (85.6 - 94.7)	81.6 (23.3 - 97.2)	77.1 (62.1 - 88.8)
Regional	All ages	93.1 (90.6 - 94.9)	93.8 (91.9 - 95.3)	94.1 (91.5 - 95.9)	90.8 (83.2 - 95.1)	92.8 (84.7 - 96.7)	91.6 (88.3 - 94.0)	92.9 (91.4 - 94.1)	91.9 (76.1 - 97.4)	92.5 (89.0 - 95.0)
	15-49	97.6 (89.8 - 99.5)	100.0 (100.0 - 100.0)	97.7 (90.0 - 99.5)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	97.7 (94.6 - 99.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	95.8 (92.8 - 97.6)	96.3 (93.8 - 97.8)	97.8 (94.6 - 99.1)	96.0 (86.0 - 98.9)	97.5 (86.2 - 99.6)	96.1 (91.7 - 98.2)	94.9 (93.0 - 96.4)	100.0 (100.0 - 100.0)	97.0 (91.6 - 99.0)
	65-79	93.1 (88.9 - 95.8)	95.4 (92.5 - 97.2)	94.4 (90.0 - 96.9)	92.4 (81.3 - 97.1)	92.7 (79.7 - 97.5)	88.9 (83.6 - 92.6)	92.6 (90.3 - 94.5)	93.8 (67.8 - 98.9)	93.3 (87.3 - 96.6)
	80-99	84.2 (73.3 - 91.0)	81.4 (73.1 - 87.3)	84.7 (74.0 - 91.2)	57.2 (21.7 - 81.5)	72.0 (28.7 - 91.7)	87.5 (71.6 - 94.9)	87.5 (82.1 - 91.4)	70.4 (25.0 - 91.5)	78.1 (64.2 - 87.1)
Distant	All ages	55.7 (50.0 - 61.0)	58.7 (54.0 - 63.1)	55.4 (49.4 - 61.0)	58.8 (46.8 - 69.0)	52.8 (40.2 - 63.9)	47.2 (39.9 - 54.1)	61.3 (58.0 - 64.5)	55.7 (33.0 - 73.4)	58.6 (51.3 - 65.2)
	15-49	78.4 (62.4 - 88.2)	73.2 (60.1 - 82.7)	70.8 (53.5 - 82.7)	89.1 (42.9 - 98.4)	57.5 (17.5 - 83.9)	60.6 (40.3 - 75.9)	83.6 (74.9 - 89.5)	83.5 (27.2 - 97.5)	76.4 (54.7 - 88.7)
	50-64	68.0 (59.4 - 75.1)	69.0 (61.3 - 75.5)	65.6 (56.6 - 73.1)	62.7 (41.5 - 78.0)	76.9 (56.9 - 88.5)	61.2 (48.4 - 71.8)	71.6 (66.2 - 76.2)	57.6 (17.2 - 84.1)	74.4 (63.2 - 82.6)
	65-79	48.6 (38.7 - 57.8)	56.2 (48.7 - 63.1)	51.2 (41.6 - 60.0)	61.9 (44.9 - 75.0)	55.4 (37.0 - 70.3)	47.4 (36.8 - 57.2)	60.8 (55.1 - 65.9)	51.2 (15.3 - 78.8)	51.3 (38.8 - 62.5)
	80-99	35.6 (23.7 - 47.7)	35.5 (24.5 - 46.7)	37.6 (21.9 - 53.2)	32.6 (8.5 - 60.1)	*	19.3 (6.7 - 36.6)	33.8 (26.7 - 41.0)	42.4 (4.9 - 78.3)	37.3 (22.2 - 52.4)
Missing	All ages	46.8 (23.4 - 67.3)	77.2 (70.0 - 82.8)	51.4 (32.3 - 67.6)	74.0 (54.4 - 86.2)	43.4 (4.8 - 79.5)	67.7 (43.6 - 83.2)	76.3 (72.1 - 79.9)	55.4 (0.5 - 93.7)	64.1 (37.2 - 81.9)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	98.8 (90.1 - 99.9)	*	100.0 (100.0 - 100.0)
	50-64	40.3 (8.5 - 71.6)	86.5 (71.8 - 93.9)	57.9 (17.4 - 84.3)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	90.8 (85.5 - 94.8)	*	67.6 (5.5 - 94.8)
	65-79	35.0 (1.1 - 78.3)	74.6 (59.1 - 84.9)	36.9 (13.8 - 60.6)	51.7 (21.3 - 75.4)	35.1 (1.1 - 78.3)	61.9 (25.4 - 84.6)	73.7 (65.5 - 80.2)	*	52.9 (20.6 - 77.4)
	80-99	37.9 (16.2 - 59.6)	54.7 (41.6 - 66.1)	51.9 (29.0 - 70.6)	51.1 (20.1 - 75.5)	*	37.5 (6.5 - 70.4)	50.8 (41.6 - 59.3)	55.4 (0.5 - 93.7)	64.9 (25.9 - 87.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>§</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 19B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Canada for rectal cancer patients diagnosed during 2010-2014

Stage		Alberta	British Columbia	Manitoba	New Brunswick	Newfoundland and Labrador	Nova Scotia	Ontario	Prince Edward Island	Saskatchewan
		5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>1</sup>	All ages	64.7 (61.8 - 67.4)	67.3 (65.1 - 69.3)	65.0 (60.8 - 68.9)	67.7 (62.3 - 72.4)	71.9 (65.9 - 77.1)	60.0 (55.2 - 64.5)	68.6 (67.0 - 70.1)	65.7 (51.9 - 76.4)	65.8 (61.1 - 70.1)
	15-49	75.7 (68.9 - 81.3)	71.2 (64.9 - 76.6)	71.3 (60.4 - 79.7)	75.7 (61.2 - 85.4)	73.1 (57.6 - 83.7)	61.2 (48.3 - 71.8)	80.2 (76.7 - 83.3)	41.4 (11.9 - 69.4)	72.7 (59.3 - 82.3)
	50-64	70.5 (66.7 - 73.9)	71.8 (68.7 - 74.7)	66.4 (60.5 - 71.6)	78.1 (70.6 - 83.9)	77.8 (70.0 - 83.8)	72.0 (65.6 - 77.4)	76.3 (74.2 - 78.3)	70.3 (49.5 - 83.8)	79.0 (72.7 - 84.1)
	65-79	68.7 (64.2 - 72.8)	69.8 (66.5 - 72.9)	64.0 (57.4 - 69.9)	63.4 (55.5 - 70.4)	73.5 (64.0 - 80.8)	63.7 (57.3 - 69.4)	68.6 (66.1 - 70.9)	77.7 (52.0 - 90.7)	68.5 (61.3 - 74.7)
	80-99	39.2 (31.2 - 47.2)	50.9 (44.1 - 57.3)	63.0 (46.9 - 75.4)	52.7 (34.1 - 68.3)	59.0 (29.1 - 79.7)	36.6 (23.3 - 50.1)	49.2 (44.2 - 54.0)	51.5 (9.1 - 83.2)	36.3 (25.0 - 47.6)
<b>TNM Stage<sup>2</sup></b>										
Stage I	All ages	98.1 (12.0 - 100.0)	94.8 (90.2 - 97.3)	72.9 (58.7 - 82.9)	13.5 (9.9 - 17.8)	73.7 (68.1 - 78.5)	71.8 (60.8 - 80.2)	91.3 (78.7 - 96.6)	49.1 (32.9 - 63.5)	8.5 (3.1 - 17.2)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	27.2 (14.6 - 41.4)	82.7 (68.5 - 90.9)	54.9 (18.7 - 80.6)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	10.9 (1.2 - 33.2)
	50-64	100.0 (100.0 - 100.0)	98.1 (88.0 - 99.7)	82.9 (54.6 - 94.3)	15.8 (10.0 - 22.8)	74.1 (66.6 - 80.2)	18.9 (12.1 - 26.8)	83.5 (67.4 - 92.1)	82.0 (61.7 - 92.2)	13.8 (3.3 - 31.7)
	65-79	100.0 (100.0 - 100.0)	99.4 (11.3 - 100.0)	61.6 (34.9 - 80.0)	12.9 (7.1 - 20.5)	76.1 (67.1 - 83.0)	73.9 (55.7 - 85.6)	92.3 (66.8 - 98.4)	18.3 (5.4 - 37.2)	7.1 (0.9 - 22.4)
	80-99	81.0 (4.8 - 98.5)	72.9 (53.9 - 85.1)	52.2 (22.2 - 75.5)	*	60.4 (42.9 - 74.1)	58.5 (28.7 - 79.4)	88.2 (1.3 - 99.6)	25.7 (2.5 - 60.5)	3.1 (0.0 - 34.3)
Stage II	All ages	90.6 (65.5 - 97.7)	91.4 (86.1 - 94.7)	94.2 (86.3 - 97.6)	55.7 (43.5 - 66.4)	14.3 (10.3 - 19.0)	73.8 (66.2 - 80.0)	88.6 (72.1 - 95.6)	99.0 (0.0 - 100.0)	76.9 (50.3 - 90.4)
	15-49	100.0 (100.0 - 100.0)	92.4 (55.3 - 99.0)	97.1 (68.9 - 99.8)	82.8 (53.6 - 94.4)	23.1 (10.2 - 39.1)	78.6 (60.5 - 89.1)	82.8 (43.2 - 95.8)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	100.0 (100.0 - 100.0)	97.2 (85.5 - 99.5)	95.6 (88.6 - 98.4)	77.1 (56.8 - 88.7)	18.9 (12.1 - 26.8)	74.9 (65.1 - 82.3)	95.1 (72.6 - 99.2)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	65-79	85.0 (46.4 - 96.6)	92.4 (82.9 - 96.7)	96.7 (77.8 - 99.5)	48.1 (27.9 - 65.7)	12.9 (7.1 - 20.6)	72.0 (60.4 - 80.7)	86.9 (64.8 - 95.5)	100.0 (100.0 - 100.0)	70.9 (33.1 - 89.9)
	80-99	72.1 (2.7 - 97.1)	75.9 (57.4 - 87.2)	84.9 (51.5 - 96.1)	22.8 (5.4 - 47.3)	*	77.3 (34.4 - 94.0)	91.5 (0.0 - 99.9)	98.5 (0.0 - 100.0)	30.0 (0.5 - 76.2)
Stage III	All ages	59.3 (33.4 - 78.0)	94.5 (90.3 - 96.9)	80.0 (73.4 - 85.1)	94.6 (87.4 - 97.7)	68.0 (63.8 - 71.9)	15.1 (9.5 - 22.0)	72.1 (60.4 - 80.9)	81.7 (67.7 - 90.1)	89.6 (81.5 - 94.2)
	15-49	80.2 (20.4 - 97.0)	100.0 (100.0 - 100.0)	83.1 (62.2 - 93.1)	96.6 (65.2 - 99.7)	82.6 (71.5 - 89.8)	*	61.8 (33.2 - 81.0)	100.0 (100.0 - 100.0)	92.9 (50.7 - 99.2)
	50-64	39.3 (5.2 - 74.4)	98.0 (91.5 - 99.5)	87.9 (79.3 - 93.1)	94.1 (84.1 - 97.9)	79.6 (73.6 - 84.4)	14.7 (7.2 - 24.7)	91.3 (77.2 - 96.8)	81.5 (59.3 - 92.3)	100.0 (100.0 - 100.0)
	65-79	68.3 (18.8 - 91.6)	93.3 (85.8 - 96.9)	86.8 (75.5 - 93.1)	90.2 (77.6 - 95.9)	71.3 (64.0 - 77.3)	15.1 (6.3 - 27.3)	64.4 (46.0 - 77.9)	85.6 (56.1 - 95.9)	82.9 (71.4 - 90.0)
	80-99	42.4 (4.9 - 78.3)	88.0 (69.1 - 95.7)	42.9 (25.2 - 59.5)	100.0 (100.0 - 100.0)	38.5 (29.1 - 47.9)	*	52.4 (6.6 - 85.7)	42.7 (2.3 - 82.5)	81.8 (46.7 - 94.9)
Stage IV	All ages	56.9 (12.6 - 85.8)	57.8 (50.3 - 64.6)	67.2 (61.7 - 72.1)	83.5 (77.5 - 88.0)	84.1 (74.3 - 90.4)	54.3 (33.4 - 71.2)	14.8 (8.3 - 23.1)	67.5 (54.1 - 77.8)	70.6 (61.1 - 78.1)
	15-49	100.0 (100.0 - 100.0)	75.4 (53.2 - 88.2)	85.0 (72.9 - 92.0)	83.9 (67.1 - 92.6)	100.0 (100.0 - 100.0)	24.4 (0.0 - 82.2)	32.7 (5.2 - 65.6)	77.8 (49.4 - 91.4)	77.5 (49.0 - 91.3)
	50-64	*	73.7 (61.9 - 82.3)	73.4 (67.2 - 78.6)	86.2 (78.3 - 91.3)	88.7 (75.1 - 95.1)	61.0 (22.5 - 85.0)	15.6 (5.5 - 30.4)	75.0 (58.9 - 85.5)	82.2 (70.5 - 89.7)
	65-79	100.0 (100.0 - 100.0)	51.4 (38.5 - 62.9)	69.4 (61.3 - 76.1)	87.5 (79.6 - 92.4)	83.1 (67.0 - 91.8)	56.8 (21.1 - 81.4)	16.5 (7.0 - 29.5)	68.2 (47.5 - 82.1)	73.3 (61.4 - 82.0)
	80-99	48.7 (3.4 - 85.8)	36.5 (21.2 - 51.9)	39.5 (22.2 - 56.3)	69.0 (45.9 - 83.8)	67.3 (30.7 - 87.6)	59.8 (6.5 - 90.8)	*	51.3 (4.6 - 86.5)	48.7 (16.2 - 75.2)
Missing	All ages	55.7 (43.5 - 66.4)	68.0 (63.8 - 71.9)	54.3 (33.4 - 71.2)	49.1 (32.9 - 63.5)	76.9 (50.3 - 90.4)	61.9 (43.0 - 76.1)	58.3 (54.4 - 62.1)	28.1 (3.5 - 61.8)	51.6 (37.2 - 64.2)
	15-49	82.8 (53.6 - 94.4)	82.6 (71.5 - 89.8)	24.4 (0.0 - 82.2)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	86.9 (80.5 - 91.3)	*	91.8 (47.0 - 99.0)
	50-64	77.1 (56.8 - 88.7)	79.6 (73.6 - 84.4)	61.0 (22.5 - 85.0)	86.4 (43.9 - 97.4)	100.0 (100.0 - 100.0)	81.3 (40.1 - 95.4)	78.0 (72.8 - 82.3)	13.8 (0.0 - 76.1)	79.7 (49.3 - 93.0)
	65-79	48.1 (27.9 - 65.7)	71.3 (64.0 - 77.3)	56.8 (21.1 - 81.4)	18.3 (5.4 - 37.2)	70.9 (33.1 - 89.9)	49.2 (24.2 - 70.1)	55.4 (48.3 - 61.9)	38.3 (1.0 - 82.0)	38.6 (17.0 - 59.9)
	80-99	22.8 (5.4 - 47.3)	38.5 (29.1 - 47.9)	59.8 (6.5 - 90.8)	25.7 (2.5 - 60.5)	30.0 (0.5 - 76.2)	19.2 (0.7 - 57.4)	24.7 (18.0 - 32.0)	48.0 (0.9 - 89.2)	10.5 (1.3 - 30.7)
<b>Mapped SEER stage<sup>3</sup></b>										
Localised	All ages	89.4 (83.8 - 93.2)	89.8 (84.2 - 93.5)	87.9 (82.4 - 91.8)	91.8 (82.3 - 96.3)	97.8 (57.5 - 99.9)	87.6 (80.3 - 92.3)	87.4 (81.5 - 91.6)	97.2 (43.6 - 99.9)	84.7 (78.5 - 89.3)
	15-49	96.1 (85.2 - 99.0)	93.6 (80.2 - 98.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	91.4 (66.1 - 98.1)	96.1 (89.1 - 98.6)	80.9 (19.2 - 97.3)	88.9 (70.6 - 96.1)
	50-64	93.5 (88.0 - 96.6)	94.5 (88.7 - 97.4)	90.6 (83.7 - 94.7)	89.1 (75.8 - 95.3)	92.0 (72.7 - 97.8)	99.0 (46.5 - 100.0)	96.2 (92.7 - 98.0)	91.8 (65.3 - 98.3)	94.8 (86.0 - 98.1)
	65-79	95.4 (85.1 - 98.6)	89.9 (82.1 - 94.4)	85.5 (76.5 - 91.2)	91.6 (74.8 - 97.4)	100.0 (100.0 - 100.0)	83.7 (73.4 - 90.3)	88.6 (81.4 - 93.2)	98.1 (0.0 - 100.0)	88.5 (78.1 - 94.1)
	80-99	66.3 (47.4 - 79.7)	77.3 (49.7 - 90.9)	79.7 (55.4 - 91.6)	85.6 (22.1 - 98.4)	100.0 (100.0 - 100.0)	75.2 (45.3 - 90.2)	62.8 (34.1 - 81.8)	100.0 (100.0 - 100.0)	57.6 (38.2 - 72.9)
Regional	All ages	70.0 (65.6 - 73.9)	75.2 (70.9 - 78.9)	72.2 (67.6 - 76.4)	73.1 (62.8 - 81.0)	66.6 (55.4 - 75.7)	68.8 (63.2 - 73.7)	74.3 (69.9 - 78.2)	66.0 (48.9 - 78.6)	73.9 (67.9 - 79.0)
	15-49	84.8 (74.4 - 91.2)	80.9 (68.8 - 88.7)	73.2 (60.9 - 82.2)	60.0 (35.2 - 77.8)	83.6 (54.9 - 94.8)	75.7 (60.6 - 85.7)	86.3 (80.1 - 90.7)	100.0 (100.0 - 100.0)	89.4 (71.6 - 96.3)
	50-64	77.4 (72.1 - 81.8)	76.4 (70.4 - 81.4)	75.3 (69.1 - 80.4)	91.4 (79.3 - 96.6)	76.9 (62.8 - 86.3)	75.4 (68.1 - 81.3)	82.9 (78.8 - 86.2)	64.4 (40.1 - 80.9)	88.9 (81.1 - 93.6)
	65-79	70.4 (63.6 - 76.1)	78.0 (71.7 - 83.1)	73.8 (66.3 - 79.8)	65.7 (50.7 - 77.2)	67.7 (50.7 - 80.0)	72.7 (64.9 - 79.1)	72.8 (64.1 - 79.8)	64.6 (38.5 - 81.9)	72.8 (63.3 - 80.2)
	80-99	44.4 (30.0 - 57.8)	61.6 (48.0 - 72.7)	62.6 (44.5 - 76.3)	53.4 (13.3 - 82.2)	4.5 (0.0 - 43.9)	41.2 (21.4 - 60.0)	58.8 (46.7 - 69.1)	48.7 (7.3 - 82.1)	41.1 (23.3 - 58.1)
Distant	All ages	15.7 (12.0 - 19.9)	15.6 (11.5 - 20.1)	13.5 (9.8 - 17.8)	16.5 (9.8 - 24.8)	9.8 (4.2 - 18.4)	8.3 (5.0 - 12.8)	17.8 (13.7 - 22.4)	18.6 (6.1 - 36.3)	16.8 (11.5 - 22.9)
	15-49	26.7 (14.8 - 40.1)	26.6 (13.9 - 41.1)	20.7 (9.6 - 34.7)	32.7 (5.2 - 65.6)	9.5 (1.0 - 29.7)	18.2 (6.5 - 34.5)	40.2 (26.7 - 53.3)	*	24.8 (9.6 - 43.6)
	50-64	18.9 (12.9 - 25.8)	20.7 (13.8 - 28.6)	14.1 (8.5 - 21.0)	16.5 (6.4 - 30.6)	15.4 (4.4 - 32.5)	13.9 (6.9 - 23.4)	19.1 (12.3 - 27.0)	48.6 (12.3 - 78.0)	28.3 (17.1 - 40.7)
	65-79	16.1 (9.8 - 23.7)	13.2 (7.2 - 20.9)	12.5 (6.5 - 20.4)	18.9 (8.7 - 32.3)	12.1 (2.9 - 28.5)	7.3 (2.9 - 14.4)	16.8 (10.4 - 24.5)	*	11.1 (5.2 - 19.5)
	80-99	3.9 (0.5 - 13.4)	*	8.8 (1.5 - 24.4)	*	3.1 (0.0 - 34.3)	*	*	*	8.4 (1.5 - 22.9)
Missing	All ages	20.7 (5.2 - 43.2)	56.0 (49.3 - 62.2)	25.4 (12.8 - 40.2)	52.4 (32.4 - 68.9)	39.8 (4.8 - 75.6)	53.6 (28.6 - 73.3)	56.9 (52.7 - 60.9)	9.5 (0.0 - 66.6)	27.9 (11.3 - 47.3)
	15-49	*	74.0 (54.7 - 86.1)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	84.7 (76.9 - 90.1)	100.0 (100.0 - 100.0)	51.7 (0.8 - 91.3)
	50-64	41.2 (8.5 - 72.7)	69.0 (57.0 - 78.2)	16.7 (2.6 - 41.6)	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)	87.2 (17.8 - 98.9)	78.0 (72.2 - 82.7)	100.0 (100.0 - 100.0)	69.2 (45 - 95.7)
	65-79	5.4 (0.1 - 31.8)	58.8 (45.9 - 69.6)	7.6 (0.5 - 28.0)	18.2 (4.3 - 39.6)	30.5 (1.3 - 72.4)	39.9 (11.1 - 68.1)	52.3 (44.8 - 59.2)	44.8 (2.5 - 84.0)	29.5 (6.7 - 57.6)
	80-99	11.6 (0.5 - 41.6)	22.6 (14.0 - 32.4)	20.0 (3.3 - 46.7)	16.9 (0.5 - 55.6)	6.7 (0.0 - 55.8)	*	24.7 (17.7 - 32.4)	*	7.1 (0.2 - 31.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>1</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>2</sup> Model2: Age spline allowing separate models for each stage category

\* Not possible to estimate

**Supplementary Table 20.** Median age, number of cases and imputed proportion (%) of colon and rectal cancers by stage for individual registries in Australia, 2010-2014

Country	Colon cancer							Rectal cancer								
	TNM stage			Mapped SEER				TNM stage			Mapped SEER					
	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)	Stage	Median age (IQR)	Number of cases (%)	Imputed (%)
New South Wales	All				All	72 (63-80)	17,870		All	67 (58-76)	6,181		All	67 (58-76)	6,181	
	I				Localised	72 (63-79)	5227 (31.4)	31.3	I				Localised	67 (58-76)	2045 (37.1)	38.4
	II				Regional	72 (63-80)	7778 (46.7)	47.0	II				Regional	66 (58-76)	2507 (45.4)	44.3
	III				Distant	71 (61-80)	3664 (22.0)	21.7	III				Distant	67 (57-76)	964 (17.5)	17.3
	IV				Missing	73 (63-82)	1201 (6.7)		IV				Missing	65 (56-76)	665 (10.8)	
	Missing								Missing							
Victoria	All	72 (62-80)	12,932		All	72 (62-80)	12,932		All	67 (57-77)	4,877		All	67 (57-77)	4,877	
	I	70 (62-79)	2455 (21.2)	20.7	Localised	72 (64-80)	5516 (47.6)	46.8	I	67 (58-76)	1360 (35.0)	34.9	Localised	68 (59-76)	2128 (54.8)	53.8
	II	74 (65-81)	3684 (31.8)	31.7	Regional	72 (61-80)	3699 (31.9)	32.1	II	69 (60-77)	847 (21.8)	21.0	Regional	65 (55-76)	1088 (28.0)	27.8
	III	71 (61-79)	3076 (26.6)	26.5	Distant	69 (59-78)	2364 (20.4)	21.2	III	65 (56-76)	1009 (26.0)	25.7	Distant	65 (56-75)	665 (17.1)	18.4
	IV	69 (59-78)	2364 (20.4)	21.1	Missing	76 (63-85)	1353 (10.5)		IV	65 (56-75)	665 (17.1)	18.3	Missing	70 (58-81)	996 (20.4)	
	Missing	76 (63-85)	1353 (10.5)						Missing	70 (58-81)	996 (20.4)					

**Supplementary Table 21A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in Australia for colon cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	86.9 (86.3 - 87.6)	88.2 (87.5 - 88.9)
	15-49	92.1 (90.2 - 93.6)	91.9 (89.7 - 93.7)
	50-64	91.1 (89.9 - 92.1)	91.9 (90.5 - 93.0)
	65-79	87.3 (86.3 - 88.2)	88.5 (87.3 - 89.5)
	80-99	75.3 (73.5 - 77.0)	79.0 (77.0 - 80.8)
<b>TNM Stage<sup>¶</sup></b>			
Stage I	All ages		99.1 (98.3 - 99.9)
	15-49		99.2 (97.5 - 100.0)
	50-64		99.7 (98.9 - 100.0)
	65-79		99.0 (97.8 - 100.0)
	80-99		98.2 (94.7 - 100.0)
Stage II	All ages		97.5 (96.7 - 98.3)
	15-49		100.0 (100.0 - 100.0)
	50-64		99.5 (98.6 - 100.0)
	65-79		97.2 (95.9 - 98.4)
	80-99		93.1 (90.5 - 95.8)
Stage III	All ages		92.4 (91.2 - 93.6)
	15-49		96.2 (93.6 - 98.7)
	50-64		97.6 (96.2 - 99.0)
	65-79		92.4 (90.5 - 94.3)
	80-99		80.8 (76.5 - 85.2)
Stage IV	All ages		58.3 (55.9 - 60.6)
	15-49		73.6 (67.3 - 79.9)
	50-64		69.8 (65.6 - 74.1)
	65-79		56.9 (53.1 - 60.6)
	80-99		31.2 (26.6 - 35.8)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	97.4 (96.7 - 98.1)	98.7 (98.1 - 99.3)
	15-49	99.4 (98.4 - 100.0)	99.7 (99.0 - 100.0)
	50-64	99.5 (98.7 - 100.0)	99.6 (99.0 - 100.0)
	65-79	98.4 (97.5 - 99.3)	98.7 (97.9 - 99.6)
	80-99	90.2 (87.4 - 93.1)	96.3 (93.9 - 98.7)
Regional	All ages	94.9 (94.2 - 95.6)	92.6 (91.5 - 93.7)
	15-49	97.8 (96.3 - 99.3)	96.7 (94.6 - 98.9)
	50-64	97.5 (96.5 - 98.5)	97.7 (96.4 - 99.0)
	65-79	95.2 (94.2 - 96.1)	91.9 (90.2 - 93.7)
	80-99	87.5 (85.2 - 89.8)	81.9 (78.3 - 85.4)
Distant	All ages	55.2 (53.2 - 57.1)	58.2 (55.9 - 60.5)
	15-49	72.5 (66.8 - 78.2)	73.6 (67.3 - 79.9)
	50-64	68.7 (65.0 - 72.3)	69.9 (65.7 - 74.1)
	65-79	51.1 (48.0 - 54.1)	56.8 (53.1 - 60.5)
	80-99	29.0 (25.3 - 32.6)	31.4 (26.7 - 36.1)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category



**Supplementary Table 21B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in Australia for colon cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	71.3 (70.4 - 72.3)	70.3 (69.1 - 71.4)
	15-49	74.9 (72.0 - 77.5)	72.1 (68.6 - 75.3)
	50-64	73.8 (72.1 - 75.4)	72.1 (70.0 - 74.0)
	65-79	72.2 (70.8 - 73.6)	71.1 (69.4 - 72.7)
	80-99	62.9 (60.0 - 65.7)	63.9 (60.4 - 67.2)
<b>TNM Stage<sup>¶</sup></b>			
Stage I	All ages		97.5 (95.7 - 99.4)
	15-49		96.8 (93.0 - 100.0)
	50-64		96.5 (94.3 - 98.7)
	65-79		96.2 (93.6 - 98.8)
	80-99		100.0 (94.8 - 100.0)
Stage II	All ages		89.5 (87.8 - 91.3)
	15-49		94.2 (90.4 - 98.1)
	50-64		93.9 (91.5 - 96.3)
	65-79		87.9 (85.3 - 90.5)
	80-99		83.1 (77.0 - 89.1)
Stage III	All ages		70.1 (67.9 - 72.3)
	15-49		79.6 (74.0 - 85.2)
	50-64		77.8 (74.4 - 81.2)
	65-79		68.3 (65.0 - 71.6)
	80-99		54.8 (48.0 - 61.5)
Stage IV	All ages		15.8 (14.1 - 17.6)
	15-49		28.0 (21.4 - 34.7)
	50-64		19.4 (15.9 - 22.8)
	65-79		14.6 (11.8 - 17.5)
	80-99		4.3 (2.0 - 6.5)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	95.3 (93.9 - 96.6)	94.9 (93.6 - 96.2)
	15-49	96.4 (93.9 - 98.8)	96.2 (93.4 - 99.0)
	50-64	97.5 (95.9 - 99.1)	95.4 (93.8 - 97.1)
	65-79	96.0 (94.1 - 97.8)	94.0 (92.1 - 95.9)
	80-99	89.1 (83.5 - 94.6)	95.5 (90.1 - 100.0)
Regional	All ages	80.9 (79.6 - 82.3)	70.3 (68.3 - 72.4)
	15-49	89.4 (86.3 - 92.6)	80.6 (75.6 - 85.7)
	50-64	83.9 (81.7 - 86.0)	79.1 (75.8 - 82.4)
	65-79	79.9 (77.9 - 81.9)	67.6 (64.5 - 70.8)
	80-99	72.2 (67.8 - 76.6)	54.1 (48.2 - 60.1)
Distant	All ages	18.3 (16.7 - 19.9)	15.9 (14.0 - 17.7)
	15-49	26.0 (20.3 - 31.6)	28.1 (21.4 - 34.8)
	50-64	24.9 (21.6 - 28.2)	19.7 (16.2 - 23.1)
	65-79	15.5 (13.3 - 17.8)	14.7 (11.8 - 17.5)
	80-99	8.2 (5.6 - 10.9)	4.1 (1.9 - 6.3)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 22A.** Age-standardised and age-specific one-year net survival (%) by imputed stage at diagnosis for individual registries in Australia for rectal cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	89.0 (87.9 - 90.0)	91.3 (90.1 - 92.3)
	15-49	95.5 (93.1 - 97.1)	96.3 (93.9 - 97.8)
	50-64	93.4 (91.9 - 94.7)	94.8 (93.2 - 96.1)
	65-79	88.4 (86.6 - 89.9)	90.7 (88.8 - 92.3)
	80-99	78.0 (74.0 - 81.4)	82.8 (78.7 - 86.1)
<b>TNM Stage<sup>‡</sup></b>			
Stage I	All ages		98.1 (96.9 - 99.3)
	15-49		100.0 (100.0 - 100.0)
	50-64		99.7 (98.7 - 100.0)
	65-79		96.5 (94.2 - 98.8)
	80-99		97.6 (92.3 - 100.0)
Stage II	All ages		97.7 (95.8 - 99.5)
	15-49		99.8 (98.0 - 100.0)
	50-64		98.6 (96.6 - 100.0)
	65-79		97.6 (94.4 - 100.0)
	80-99		94.1 (86.7 - 100.0)
Stage III	All ages		94.1 (91.3 - 96.9)
	15-49		99.4 (97.8 - 100.0)
	50-64		97.1 (94.5 - 99.7)
	65-79		94.0 (90.4 - 97.5)
	80-99		86.1 (76.4 - 95.8)
Stage IV	All ages		66.3 (61.7 - 70.8)
	15-49		85.6 (78.5 - 92.7)
	50-64		77.2 (70.7 - 83.8)
	65-79		63.4 (56.3 - 70.6)
	80-99		40.5 (28.8 - 52.2)
<b>Mapped SEER stage<sup>‡</sup></b>			
Localised	All ages	95.3 (94.0 - 96.7)	98.0 (96.8 - 99.1)
	15-49	100.0 (100.0 - 100.0)	99.9 (98.8 - 100.0)
	50-64	97.9 (96.4 - 99.4)	99.4 (98.4 - 100.0)
	65-79	95.4 (93.5 - 97.4)	97.2 (95.4 - 98.9)
	80-99	87.6 (82.2 - 93.1)	96.0 (90.9 - 100.0)
Regional	All ages	95.4 (94.1 - 96.6)	94.9 (92.9 - 96.9)
	15-49	99.1 (97.8 - 100.0)	99.8 (98.5 - 100.0)
	50-64	97.8 (96.5 - 99.1)	97.2 (95.1 - 99.3)
	65-79	94.7 (92.8 - 96.6)	94.3 (91.3 - 97.3)
	80-99	89.6 (84.2 - 94.9)	88.9 (81.3 - 96.5)
Distant	All ages	59.0 (55.1 - 62.8)	66.0 (61.8 - 70.1)
	15-49	78.9 (70.1 - 87.7)	84.9 (77.4 - 92.4)
	50-64	73.3 (67.6 - 79.0)	77.1 (70.7 - 83.5)
	65-79	53.3 (47.0 - 59.6)	62.9 (56.0 - 69.8)
	80-99	33.9 (25.0 - 42.7)	40.4 (30.4 - 50.4)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 22B.** Age-standardised and age-specific five-year net survival (%) by imputed stage at diagnosis for individual registries in Australia for rectal cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	69.2 (67.6 - 70.8)	72.8 (70.9 - 74.6)
	15-49	77.7 (73.8 - 81.1)	78.2 (73.8 - 82.0)
	50-64	75.1 (72.8 - 77.3)	75.7 (73.0 - 78.2)
	65-79	68.4 (65.8 - 70.8)	73.3 (70.4 - 76.0)
	80-99	54.2 (48.3 - 59.7)	62.7 (55.9 - 68.7)
<b>TNM Stage<sup>‡</sup></b>			
Stage I	All ages		94.9 (92.1 - 97.8)
	15-49		99.2 (96.7 - 100.0)
	50-64		94.4 (91.2 - 97.5)
	65-79		93.8 (90.1 - 97.6)
	80-99		96.1 (82.0 - 100.0)
Stage II	All ages		86.4 (82.7 - 90.1)
	15-49		92.7 (85.8 - 99.5)
	50-64		86.7 (82.0 - 91.5)
	65-79		86.1 (80.5 - 91.8)
	80-99		81.9 (66.7 - 97.1)
Stage III	All ages		67.9 (63.3 - 72.5)
	15-49		79.1 (71.3 - 87.0)
	50-64		76.6 (71.1 - 82.1)
	65-79		66.3 (60.1 - 72.6)
	80-99		50.5 (37.1 - 64.0)
Stage IV	All ages		19.2 (15.6 - 22.7)
	15-49		37.1 (26.0 - 48.1)
	50-64		24.1 (17.8 - 30.4)
	65-79		18.3 (12.2 - 24.4)
	80-99		3.5 (0.0 - 8.7)
<b>Mapped SEER stage<sup>‡</sup></b>			
Localised	All ages	86.9 (84.4 - 89.5)	92.4 (89.9 - 94.8)
	15-49	97.7 (94.6 - 100.0)	96.6 (93.4 - 99.9)
	50-64	91.7 (88.9 - 94.6)	92.1 (89.6 - 94.6)
	65-79	86.5 (82.9 - 90.1)	91.8 (88.5 - 95.1)
	80-99	71.9 (61.6 - 82.1)	91.5 (81.5 - 100.0)
Regional	All ages	75.5 (73.1 - 78.0)	68.6 (64.9 - 72.4)
	15-49	85.4 (80.7 - 90.2)	80.1 (72.9 - 87.2)
	50-64	80.5 (77.3 - 83.6)	76.9 (71.9 - 81.9)
	65-79	73.9 (70.3 - 77.5)	65.7 (60.2 - 71.3)
	80-99	61.9 (52.6 - 71.3)	53.5 (41.1 - 65.9)
Distant	All ages	16.3 (13.5 - 19.1)	19.2 (15.6 - 22.7)
	15-49	27.5 (18.0 - 37.0)	38.6 (27.1 - 50.0)
	50-64	25.2 (19.5 - 31.0)	23.6 (17.4 - 29.7)
	65-79	12.1 (8.3 - 16.0)	18.8 (13.0 - 24.6)
	80-99	4.6 (0.4 - 8.7)	2.4 (0.0 - 5.8)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>‡</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 23A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Australia for colon cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	86.9 (86.3 - 87.6)	88.2 (87.5 - 88.9)
	15-49	92.1 (90.2 - 93.6)	91.9 (89.7 - 93.7)
	50-64	91.1 (89.9 - 92.1)	91.9 (90.5 - 93.0)
	65-79	87.3 (86.3 - 88.2)	88.5 (87.3 - 89.5)
	80-99	75.3 (73.5 - 77.0)	79.0 (77.0 - 80.8)
<b>TNM Stage<sup>¶</sup></b>			
Stage I	All ages		99.6 (97.5 - 99.9)
	15-49		99.3 (93.3 - 99.9)
	50-64		99.7 (95.4 - 100.0)
	65-79		99.0 (96.8 - 99.7)
	80-99		100.0 (100.0 - 100.0)
Stage II	All ages		98.4 (97.5 - 98.9)
	15-49		100.0 (100.0 - 100.0)
	50-64		99.6 (96.8 - 99.9)
	65-79		97.4 (95.8 - 98.4)
	80-99		97.1 (93.6 - 98.7)
Stage III	All ages		93.7 (92.5 - 94.7)
	15-49		95.7 (91.7 - 97.8)
	50-64		97.6 (95.8 - 98.7)
	65-79		93.2 (91.1 - 94.8)
	80-99		86.1 (81.8 - 89.4)
Stage IV	All ages		59.4 (56.9 - 61.7)
	15-49		71.7 (64.3 - 77.9)
	50-64		69.6 (65.0 - 73.7)
	65-79		58.4 (54.5 - 62.2)
	80-99		34.2 (29.1 - 39.4)
Missing	All ages		78.4 (75.4 - 81.0)
	15-49		97.3 (91.6 - 99.2)
	50-64		92.8 (87.2 - 96.0)
	65-79		77.0 (71.1 - 81.8)
	80-99		50.8 (45.1 - 56.1)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	97.5 (96.8 - 98.1)	99.3 (98.6 - 99.7)
	15-49	99.4 (97.1 - 99.9)	99.7 (95.5 - 100.0)
	50-64	99.4 (97.8 - 99.8)	99.7 (97.8 - 99.9)
	65-79	98.4 (97.2 - 99.1)	98.9 (97.8 - 99.5)
	80-99	91.0 (87.9 - 93.3)	99.4 (87.7 - 100.0)
Regional	All ages	95.2 (94.5 - 95.8)	93.9 (92.8 - 94.8)
	15-49	97.8 (95.5 - 98.9)	96.3 (92.9 - 98.1)
	50-64	97.4 (96.2 - 98.2)	97.9 (96.2 - 98.8)
	65-79	95.2 (94.1 - 96.1)	92.5 (90.6 - 94.1)
	80-99	89.1 (86.6 - 91.1)	87.4 (83.8 - 90.3)
Distant	All ages	55.3 (53.2 - 57.2)	59.3 (56.9 - 61.7)
	15-49	72.2 (65.9 - 77.6)	71.7 (64.3 - 77.9)
	50-64	68.5 (64.6 - 72.1)	69.6 (65.0 - 73.7)
	65-79	50.9 (47.7 - 53.9)	58.4 (54.5 - 62.2)
	80-99	29.9 (26.1 - 33.7)	34.2 (29.1 - 39.4)
Missing	All ages	84.1 (81.4 - 86.5)	78.4 (75.4 - 81.0)
	15-49	93.1 (84.0 - 97.1)	97.3 (91.6 - 99.2)
	50-64	93.2 (87.5 - 96.3)	92.8 (87.2 - 96.0)
	65-79	88.0 (83.6 - 91.2)	77.0 (71.1 - 81.8)
	80-99	59.2 (52.3 - 65.5)	50.8 (45.1 - 56.1)

Abbreviation: NS = net survival, CI = confidence interval

<sup>‡</sup> All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 23B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Australia for colon cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	71.3 (70.4 - 72.3)	70.3 (69.1 - 71.4)
	15-49	74.9 (72.0 - 77.5)	72.1 (68.6 - 75.3)
	50-64	73.8 (72.1 - 75.4)	72.1 (70.0 - 74.0)
	65-79	72.2 (70.8 - 73.6)	71.1 (69.4 - 72.7)
	80-99	62.9 (60.0 - 65.7)	63.9 (60.4 - 67.2)
<b>TNM Stage<sup>§</sup></b>			
Stage I	All ages		98.4 (95.0 - 99.5)
	15-49		97.1 (90.6 - 99.1)
	50-64		96.6 (93.5 - 98.2)
	65-79		96.4 (92.6 - 98.2)
	80-99		100.0 (100.0 - 100.0)
Stage II	All ages		91.0 (89.1 - 92.6)
	15-49		93.7 (87.9 - 96.8)
	50-64		94.0 (91.0 - 96.0)
	65-79		88.4 (85.6 - 90.7)
	80-99		89.8 (81.2 - 94.6)
Stage III	All ages		71.5 (69.2 - 73.7)
	15-49		78.3 (71.6 - 83.6)
	50-64		77.3 (73.5 - 80.6)
	65-79		69.1 (65.6 - 72.3)
	80-99		62.1 (54.4 - 68.8)
Stage IV	All ages		16.4 (14.5 - 18.3)
	15-49		26.2 (19.9 - 32.9)
	50-64		19.1 (15.8 - 22.7)
	65-79		15.8 (12.9 - 19.0)
	80-99		5.7 (3.3 - 9.1)
Missing	All ages		59.1 (55.3 - 62.8)
	15-49		86.3 (76.9 - 92.1)
	50-64		77.1 (69.5 - 83.1)
	65-79		56.9 (50.3 - 63.0)
	80-99		25.9 (20.2 - 32.0)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	95.4 (93.8 - 96.5)	95.9 (94.4 - 97.0)
	15-49	96.3 (92.6 - 98.2)	96.2 (92.3 - 98.1)
	50-64	97.5 (95.3 - 98.7)	95.5 (93.4 - 96.9)
	65-79	95.9 (93.5 - 97.4)	94.2 (92.0 - 95.8)
	80-99	89.5 (82.3 - 93.9)	100.0 (100.0 - 100.0)
Regional	All ages	81.0 (79.6 - 82.3)	72.0 (69.9 - 74.0)
	15-49	89.2 (85.4 - 92.0)	79.3 (73.2 - 84.2)
	50-64	83.4 (81.0 - 85.5)	79.0 (75.6 - 82.1)
	65-79	79.7 (77.6 - 81.6)	68.7 (65.5 - 71.7)
	80-99	74.4 (69.6 - 78.6)	61.9 (54.9 - 68.1)
Distant	All ages	18.2 (16.7 - 19.8)	16.4 (14.5 - 18.3)
	15-49	24.6 (19.5 - 30.0)	26.2 (19.9 - 32.9)
	50-64	24.5 (21.2 - 27.8)	19.1 (15.8 - 22.7)
	65-79	15.5 (13.4 - 17.8)	15.8 (12.9 - 19.0)
	80-99	9.5 (6.8 - 12.7)	5.7 (3.3 - 9.1)
Missing	All ages	71.0 (67.3 - 74.4)	59.1 (55.3 - 62.8)
	15-49	84.1 (74.2 - 90.5)	86.3 (76.9 - 92.1)
	50-64	81.5 (74.2 - 86.8)	77.1 (69.5 - 83.1)
	65-79	74.9 (68.6 - 80.1)	56.9 (50.3 - 63.0)
	80-99	41.0 (31.9 - 49.9)	25.9 (20.2 - 32.0)

Abbreviation: NS = net survival, CI = confidence interval

<sup>‡</sup> All ages=Age-standardised

<sup>§</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 24A.** Age-standardised and age-specific one-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Australia for rectal cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		1-year NS (95% CI)	1-year NS (95% CI)
All patients <sup>‡</sup>	All ages	89.0 (87.9 - 90.0)	91.3 (90.1 - 92.3)
	15-49	95.5 (93.1 - 97.1)	96.3 (93.9 - 97.8)
	50-64	93.4 (91.9 - 94.7)	94.8 (93.2 - 96.1)
	65-79	88.4 (86.6 - 89.9)	90.7 (88.8 - 92.3)
	80-99	78.0 (74.0 - 81.4)	82.8 (78.7 - 86.1)
<b>TNM Stage<sup>§</sup></b>			
Stage I	All ages		99.0 (96.8 - 99.7)
	15-49		100.0 (100.0 - 100.0)
	50-64		99.8 (78.4 - 100.0)
	65-79		97.2 (94.2 - 98.7)
	80-99		100.0 (100.0 - 100.0)
Stage II	All ages		99.2 (95.6 - 99.8)
	15-49		100.0 (100.0 - 100.0)
	50-64		98.7 (94.0 - 99.7)
	65-79		99.3 (88.1 - 100.0)
	80-99		98.9 (11.1 - 100.0)
Stage III	All ages		96.9 (94.5 - 98.3)
	15-49		100.0 (100.0 - 100.0)
	50-64		97.7 (94.1 - 99.1)
	65-79		96.6 (92.4 - 98.5)
	80-99		94.3 (82.4 - 98.3)
Stage IV	All ages		68.9 (64.1 - 73.2)
	15-49		85.6 (75.4 - 91.8)
	50-64		78.5 (70.7 - 84.4)
	65-79		68.8 (60.9 - 75.5)
	80-99		41.5 (29.6 - 53.1)
Missing	All ages		83.7 (80.4 - 86.4)
	15-49		95.3 (87.7 - 98.3)
	50-64		92.2 (87.0 - 95.4)
	65-79		78.1 (71.7 - 83.3)
	80-99		66.5 (57.5 - 74.0)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	95.3 (93.7 - 96.5)	99.1 (97.5 - 99.6)
	15-49	100.0 (100.0 - 100.0)	100.0 (100.0 - 100.0)
	50-64	97.7 (95.4 - 98.9)	99.6 (96.7 - 100.0)
	65-79	95.4 (92.9 - 97.1)	98.0 (95.8 - 99.1)
	80-99	87.9 (81.1 - 92.4)	99.9 (0.0 - 100.0)
Regional	All ages	95.7 (94.2 - 96.7)	97.0 (94.8 - 98.3)
	15-49	99.1 (95.6 - 99.8)	100.0 (100.0 - 100.0)
	50-64	97.8 (95.9 - 98.8)	97.4 (94.0 - 98.9)
	65-79	94.8 (92.4 - 96.4)	96.6 (92.6 - 98.5)
	80-99	91.1 (84.6 - 95.0)	95.4 (83.3 - 98.8)
Distant	All ages	58.4 (54.4 - 62.3)	68.9 (64.1 - 73.1)
	15-49	77.5 (66.3 - 85.4)	85.4 (75.1 - 91.7)
	50-64	71.7 (65.1 - 77.3)	78.5 (70.7 - 84.4)
	65-79	53.5 (46.9 - 59.8)	68.8 (60.9 - 75.5)
	80-99	34.7 (25.7 - 43.9)	41.5 (29.6 - 53.1)
Missing	All ages	88.6 (85.1 - 91.3)	83.7 (80.4 - 86.4)
	15-49	97.7 (90.5 - 99.5)	95.3 (87.7 - 98.3)
	50-64	96.2 (91.3 - 98.3)	92.2 (87.0 - 95.4)
	65-79	87.3 (81.0 - 91.6)	78.1 (71.7 - 83.3)
	80-99	70.2 (57.6 - 79.7)	66.5 (57.5 - 74.0)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category

**Supplementary Table 24B.** Age-standardised and age-specific five-year net survival (%) by stage at diagnosis (without imputation) for individual registries in Australia for rectal cancer patients diagnosed during 2010-2014

Stage		New South Wales	Victoria
		5-year NS (95% CI)	5-year NS (95% CI)
All patients <sup>‡</sup>	All ages	69.2 (67.6 - 70.8)	72.8 (70.9 - 74.6)
	15-49	77.7 (73.8 - 81.1)	78.2 (73.8 - 82.0)
	50-64	75.1 (72.8 - 77.3)	75.7 (73.0 - 78.2)
	65-79	68.4 (65.8 - 70.8)	73.3 (70.4 - 76.0)
	80-99	54.2 (48.3 - 59.7)	62.7 (55.9 - 68.7)
<b>TNM Stage<sup>¶</sup></b>			
Stage I	All ages		97.5 (92.6 - 99.2)
	15-49		99.6 (43.2 - 100.0)
	50-64		94.7 (90.8 - 97.0)
	65-79		95.3 (89.6 - 97.9)
	80-99		100.0 (100.0 - 100.0)
Stage II	All ages		89.1 (84.7 - 92.2)
	15-49		91.4 (79.2 - 96.6)
	50-64		86.2 (80.0 - 90.5)
	65-79		88.4 (81.8 - 92.7)
	80-99		95.3 (29.8 - 99.8)
Stage III	All ages		72.0 (67.7 - 75.8)
	15-49		76.3 (66.5 - 83.7)
	50-64		76.9 (71.0 - 81.8)
	65-79		68.7 (62.1 - 74.4)
	80-99		69.2 (52.2 - 81.2)
Stage IV	All ages		21.2 (17.4 - 25.2)
	15-49		35.5 (24.3 - 46.8)
	50-64		24.5 (18.2 - 31.3)
	65-79		22.5 (16.1 - 29.7)
	80-99		4.1 (0.6 - 13.7)
Missing	All ages		60.8 (56.5 - 64.7)
	15-49		84.9 (75.4 - 91.0)
	50-64		74.4 (67.8 - 79.8)
	65-79		57.4 (50.1 - 64.0)
	80-99		25.0 (16.7 - 34.2)
<b>Mapped SEER stage<sup>¶</sup></b>			
Localised	All ages	86.6 (83.8 - 88.9)	95.1 (92.3 - 96.9)
	15-49	98.0 (92.3 - 99.5)	96.9 (91.2 - 98.9)
	50-64	91.6 (88.2 - 94.1)	92.2 (89.0 - 94.5)
	65-79	86.2 (81.9 - 89.4)	93.5 (89.6 - 96.0)
	80-99	70.6 (58.7 - 79.6)	100.0 (100.0 - 100.0)
Regional	All ages	75.4 (72.9 - 77.7)	71.8 (67.7 - 75.5)
	15-49	84.6 (79.0 - 88.8)	77.4 (68.1 - 84.3)
	50-64	80.4 (76.9 - 83.4)	76.7 (71.1 - 81.4)
	65-79	73.6 (69.7 - 77.1)	67.6 (61.2 - 73.2)
	80-99	62.0 (51.7 - 70.8)	69.9 (53.3 - 81.6)
Distant	All ages	16.1 (13.4 - 19.0)	21.2 (17.4 - 25.3)
	15-49	25.2 (16.7 - 34.6)	35.9 (24.6 - 47.3)
	50-64	25.2 (19.7 - 31.0)	24.5 (18.2 - 31.3)
	65-79	12.2 (8.7 - 16.3)	22.5 (16.1 - 29.7)
	80-99	4.6 (1.5 - 10.4)	4.1 (0.6 - 13.7)
Missing	All ages	72.6 (67.0 - 77.4)	60.8 (56.5 - 64.7)
	15-49	86.7 (75.7 - 92.9)	84.9 (75.4 - 91.0)
	50-64	77.0 (68.4 - 83.6)	74.4 (67.8 - 79.8)
	65-79	70.5 (61.1 - 78.0)	57.4 (50.1 - 64.0)
	80-99	57.1 (37.9 - 72.3)	25.0 (16.7 - 34.2)

Abbreviation: NS = net survival, CI = confidence interval

All ages=Age-standardised

<sup>‡</sup> Model1: Age spline with mapped SEER stage as time-dependent covariate

<sup>¶</sup> Model2: Age spline allowing separate models for each stage category