

Appendix A: 1 year survival: 2009-2013

One year survival for the top 20 most common cancers in males and females by deprivation (SIMD), Scotland

Cancer	Deprivation	Males			Females		
		Period of diagnosis			2009 - 2013 (F)		
		2009 - 2013 (M)	Survival (%)	95% CI	Survival (%)	95% CI	
Lung	1 (most deprived)	32	28	35	36	32	39
	2	34	31	38	38	34	42
	3	32	28	36	39	35	44
	4	34	29	39	41	36	46
	5 (least deprived)	39	33	45	41	35	47
Breast (female)	1 (most deprived)				93	91	95
	2				94	93	96
	3				95	93	96
	4				95	94	97
	5 (least deprived)				96	95	97
Colorectal	1 (most deprived)	76	72	80	75	70	80
	2	78	74	82	77	73	82
	3	82	78	85	78	73	82
	4	82	78	86	79	74	83
	5 (least deprived)	83	79	87	82	78	86
Prostate	1 (most deprived)	96	93	99			
	2	96	94	99			
	3	98	96	100			
	4	98	96	100			
	5 (least deprived)	98	96	100			
Head and Neck	1 (most deprived)	69	64	75	73	66	81
	2	75	70	80	73	65	80
	3	76	70	81	80	72	87
	4	84	78	89	75	67	83
	5 (least deprived)	84	79	90	80	72	89
Malignant Melonoma of the Skin	1 (most deprived)	96	92	100	97	94	100
	2	96	93	100	97	94	100
	3	95	92	99	97	94	100
	4	95	92	99	98	95	100
	5 (least deprived)	99	96	100	99	97	100
Non-Hodgkin's Lymphoma	1 (most deprived)	70	62	78	75	68	82
	2	75	69	82	79	73	85
	3	77	71	83	79	74	85
	4	78	73	84	81	75	87
	5 (least deprived)	83	77	88	81	76	87
Kidney	1 (most deprived)	72	65	79	71	64	79
	2	72	66	79	76	69	82
	3	78	72	84	77	69	84
	4	73	67	80	74	66	82
	5 (least deprived)	80	74	87	79	72	87
Oesophagus	1 (most deprived)	38	31	45	43	36	51
	2	43	36	49	41	33	49
	3	40	33	47	42	34	50
	4	46	38	53	39	30	48
	5 (least deprived)	49	41	57	41	30	52
Bladder	1 (most deprived)	71	64	79	55	44	66
	2	72	65	79	58	47	69
	3	77	71	84	59	47	71
	4	76	70	83	72	61	83
	5 (least deprived)	80	73	86	73	62	84

One year survival for the top 20 most common cancers in males and females by deprivation (SIMD), Scotland

Cancer	Deprivation	Males			Females		
		Period of diagnosis			2009 - 2013 (F)		
		2009 - 2013 (M)	95% CI		Survival (%)	95% CI	
Pancreas	1 (most deprived)	18	12	23	20	14	26
	2	20	14	26	19	13	26
	3	24	17	30	18	12	24
	4	21	15	27	25	18	32
	5 (least deprived)	24	18	31	28	20	35
Corpus uteri	1 (most deprived)				84	79	89
	2				86	82	91
	3				87	83	91
	4				88	84	92
	5 (least deprived)				88	84	93
Stomach	1 (most deprived)	44	36	52	41	31	51
	2	41	33	49	49	39	59
	3	42	34	50	45	34	56
	4	44	36	53	49	37	61
	5 (least deprived)	47	37	56	44	32	57
Liver	1 (most deprived)	39	32	45	37	27	48
	2	38	31	45	33	22	43
	3	35	27	42	28	16	40
	4	44	35	53	41	29	53
	5 (least deprived)	44	35	54	37	24	51
Ovary	1 (most deprived)				69	62	76
	2				66	60	73
	3				66	60	73
	4				71	64	77
	5 (least deprived)				69	62	75
Leukaemia	1 (most deprived)	67	58	76	70	60	80
	2	73	65	81	75	66	85
	3	72	64	80	66	57	76
	4	72	64	80	71	62	80
	5 (least deprived)	81	74	88	74	64	84
Brain and CNS	1 (most deprived)	28	21	36	21	14	28
	2	37	30	45	39	31	47
	3	37	30	43	35	27	42
	4	37	31	44	35	27	42
	5 (least deprived)	36	29	44	39	31	47
Cervix	1 (most deprived)				79	73	85
	2				80	73	86
	3				86	80	92
	4				82	76	88
	5 (least deprived)				90	82	97
Thyroid*	1 (most deprived)	86	76	97	93	89	98
	2	91	82	100	92	88	97
	3	83	74	91	92	88	97
	4	94	87	100	96	92	99
	5 (least deprived)	89	80	98	94	90	98
Mesothelioma*	1 (most deprived)	32	20	43	46	30	62
	2	46	35	57	43	27	59
	3	43	31	56	22	6	37
	4	44	32	55	51	32	71
	5 (least deprived)	42	30	55	33	18	48

* Thyroid cancer in Men and Women and Mesothelioma in Women are not age standardised due to small number:

Appendix B:

Cancer	Deprivation	Males						Females					
		2004 - 2008		2004 - 2008		2009 - 2013		2004 - 2008		2004 - 2008		2009 - 2013	
		1-year Survival	5-year Survival	1-year Survival	5-year Survival	1-year Survival	5-year Survival	1-year Survival	5-year Survival	1-year Survival	5-year Survival	1-year Survival	5-year Survival
	Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths	
Lung	1 (most deprived)	3849	2870	979	774	3809	2685	3519	2458	1061	794	3822	2557
	2	3149	2350	799	621	3198	2211	2798	1956	842	645	3069	2038
	3	2424	1724	700	528	2532	1776	2071	1434	637	477	2348	1511
	4	1782	1267	515	388	1945	1343	1658	1165	493	357	1839	1169
	5 (Least deprived)	1404	995	409	300	1523	1009	1181	801	380	276	1363	862
Breast (female)	1 (most deprived)							3611	369	3242	809	3701	303
	2							4060	327	3733	858	4261	324
	3							4094	308	3786	765	4482	275
	4							4141	267	3874	738	4756	275
	5 (Least deprived)							4009	202	3807	618	4734	227
Colorectal	1 (most deprived)	1901	661	1240	548	2044	595	1559	529	1030	427	1611	490
	2	2068	626	1442	591	2189	587	1791	564	1227	490	1921	547
	3	1953	545	1408	565	2185	510	1689	516	1173	411	1764	506
	4	1780	480	1300	488	2153	474	1532	448	1084	403	1745	479
	5 (Least deprived)	1839	406	1433	520	1974	418	1519	399	1120	352	1651	388
Prostate	1 (most deprived)	2237	311	1926	683	2336	277						
	2	2743	362	2381	779	2910	312						
	3	2831	290	2541	725	3242	275						
	4	2957	304	2653	686	3460	254						
	5 (Least deprived)	3051	239	2812	652	3588	239						
Head and Neck	1 (most deprived)	1104	329	775	334	1186	349	471	121	350	140	494	128
	2	872	221	651	263	935	235	352	103	249	96	433	123
	3	690	180	510	197	817	193	282	73	209	65	371	82
	4	546	111	435	136	670	120	235	45	190	50	329	84
	5 (Least deprived)	431	90	341	103	519	80	178	41	137	35	239	51
Malignant Melo	1 (most deprived)	291	31	260	69	330	26	413	23	390	56	419	19
	2	401	42	359	97	455	30	515	19	496	73	488	29
	3	446	31	415	95	547	42	542	26	516	66	618	28
	4	467	31	436	87	614	43	574	27	547	65	713	26
	5 (Least deprived)	584	32	552	96	730	32	704	19	685	74	803	18
Non-Hodgkin's l	1 (most deprived)	433	143	290	88	433	130	436	135	301	76	467	132
	2	500	168	332	105	504	140	471	123	348	110	532	130
	3	469	115	354	101	553	141	547	127	420	117	546	134
	4	466	123	343	93	609	144	423	100	323	88	473	110
	5 (Least deprived)	488	125	363	82	549	106	427	100	327	82	520	116
Kidney	1 (most deprived)	404	149	255	102	512	150	310	123	187	63	427	137
	2	463	158	305	115	586	180	347	154	193	61	427	126
	3	468	162	306	101	550	141	283	113	170	65	378	103
	4	426	133	293	108	538	162	311	121	190	62	326	97
	5 (Least deprived)	408	134	274	101	455	100	240	89	151	45	305	73
Oesophagus	1 (most deprived)	620	402	218	162	605	384	329	225	104	80	352	220
	2	630	413	217	167	595	357	373	251	122	88	360	233
	3	538	334	204	155	603	372	319	217	102	79	341	213
	4	461	283	178	140	533	302	274	174	100	64	290	199
	5 (Least deprived)	397	238	159	117	444	233	226	144	82	61	236	149
Bladder	1 (most deprived)	537	198	339	159	505	185	300	150	150	82	290	150
	2	565	181	384	168	585	205	328	154	174	93	294	145
	3	521	180	341	155	571	184	255	109	146	70	257	129
	4	453	142	311	139	535	167	193	84	109	47	220	80
	5 (Least deprived)	431	119	312	149	497	144	193	84	109	56	229	88
Pancreas	1 (most deprived)	338	295	43	37	359	302	401	351	50	40	426	354
	2	338	291	47	40	413	345	357	300	57	52	433	361
	3	316	261	55	43	387	306	339	279	60	51	369	310
	4	278	229	49	41	356	290	291	245	46	36	383	315
	5 (Least deprived)	271	227	44	36	364	283	263	217	46	40	327	249
Corpus uteri	1 (most deprived)							492	72	420	89	605	97
	2							593	82	511	137	660	87
	3							584	62	522	112	688	86
	4							557	66	491	84	710	73
	5 (Least deprived)							518	47	471	83	687	67

Cancer	Deprivation	Males						Females					
		2004 - 2008		2004 - 2008		2009 - 2013		2004 - 2008		2004 - 2008		2009 - 2013	
		1-year Survival		5-year Survival		1-year Survival		1-year Survival		5-year Survival		1-year Survival	
		Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths	Total	Deaths
Stomach	1 (most deprived)	647	418	229	160	493	295	415	284	131	89	348	224
	2	558	364	194	130	505	323	350	228	122	84	326	194
	3	498	338	160	100	462	294	272	178	94	58	269	168
	4	391	252	139	103	408	243	267	169	98	65	226	131
	5 (Least deprived)	340	196	144	94	359	203	218	135	83	46	204	127
Liver	1 (most deprived)	322	259	63	47	420	266	151	110	41	31	184	125
	2	256	185	71	52	387	250	149	111	38	29	184	137
	3	213	150	63	42	328	222	130	101	29	21	138	107
	4	203	142	61	37	275	160	104	79	25	19	144	95
	5 (Least deprived)	168	110	58	48	252	147	69	45	24	16	104	72
Ovary	1 (most deprived)							575	189	386	166	597	178
	2							647	241	406	177	568	189
	3							603	183	420	194	636	212
	4							599	179	420	177	630	180
	5 (Least deprived)							624	174	450	208	587	192
Leukaemia	1 (most deprived)	372	133	239	109	335	117	281	100	181	53	247	87
	2	378	115	263	111	382	122	319	116	203	62	248	71
	3	421	121	300	120	373	125	291	105	186	61	275	111
	4	437	121	316	99	392	124	259	90	169	59	260	88
	5 (Least deprived)	349	106	243	70	373	86	239	72	167	55	240	75
Brain and CNS	1 (most deprived)	211	141	70	45	188	124	160	106	54	30	151	107
	2	223	153	70	47	230	132	176	119	57	28	177	98
	3	226	159	67	41	249	147	153	110	43	26	191	114
	4	196	127	69	44	272	159	149	96	53	29	181	116
	5 (Least deprived)	227	146	81	49	210	129	160	99	61	36	173	97
Cervix	1 (most deprived)							448	97	351	94	443	73
	2							359	69	290	65	375	58
	3							273	42	231	55	296	38
	4							219	26	193	42	295	47
	5 (Least deprived)							175	19	156	28	180	14
Thyroid	1 (most deprived)	50	9	41	8	46	7	126	13	113	8	132	10
	2	46	9	37	11	48	5	123	12	111	7	164	14
	3	45	2	43	4	88	17	105	10	95	7	181	16
	4	49	10	39	6	69	6	128	10	118	4	176	9
	5 (Least deprived)	39	5	34	7	51	6	114	8	106	4	189	13
Mesothelioma	1 (most deprived)	176	124	52	48	191	137	35	18	17	15	36	20
	2	189	128	61	52	204	128	37	22	15	14	36	21
	3	172	119	53	49	170	108	24	18	6	5	24	19
	4	151	94	57	53	166	102	11	7	4	3	26	13
	5 (Least deprived)	145	94	51	46	158	102	20	15	5	3	37	25

Appendix C: Further information on factors incorporated into model

Personal Characteristics

Cancer	Colorectal	Female Breast	Head and neck	Liver	Malignant melanoma of the skin	Oesophagus	Prostate	Trachea, bronchus and lung
Code	C18-C20	C50	C00-C14, C30-C32	C22	C43	C15	C61	C33 - C34
Cases included	17630	19917	5162	1765	4937	4167	13818	23835
Gender	Male*		Male*	Male*	Male*	Male*		Male*
	Female		Female	Female	Female	Female		Female
Age (average)	72	67	75	75	67	65	72	72
Charlson index of co-morbidity	X	X	X	X	X	X	X	X
Inpatient bed days	X	X	X	X	X	X	X	X

Tumour-related Characteristics

Cancer	Colorectal	Female Breast	Head and neck	Liver	Malignant melanoma of the skin	Oesophagus	Prostate	Trachea, bronchus and lung
Grade of differentiation	1*	I*	1*	1-4*		1*		1*
	2	II	2	NK		2		2
	3	III/IV	3			3		3
	4	NK	4			4		4
	NK		NK			NK		NK
Stage	Dukes' stage	TNM Stage			Clark level		Gleason score	Stage
	A*	1*			2*		1-4*	1*
	B	2			3		5-7	2
	C	3			4		8-10	3
	D	4			5		NK	4
	NK	NK			NK			Pre-2005 NK
Breslow Thickness (average)					Median (1mm)			
Clinical Extent								1*
								2
								3
								4
								NK
Metastases within 4 months			Yes	Yes	Yes	Yes	Yes	
			No evidence*	No evidence*	No evidence*	No evidence*	No evidence*	
ER Status		Positive*						
		Negative						
		NK						
Small Cell								Small cell* NK
Tumour morphology	Polyp-related*	Very good*		Liver Cell Carcinoma*	Superficial spreading melanoma*	Adeno-carcinoma*		
	Poor prognosis	Good		Intrahepatic Bile duct Sarcomas	Nodular melanoma	Squamous cell carcinoma		
	NK	Intermediate		Others	Lentigo malignant melanoma	NK		
		Poor		NK	Acral lentiginous melanoma			
		Very poor prognosis NK			NK			
Site/Subsite			Lip*		Arm*	Upper		
			Oral cavity		Head and neck	Middle		
			Salivary glands		Trunk	Lower*		
			Pharynx		Leg	NK		
			Nasal cavity & middle ear & sinuses		NK			
			Larynx					
			NK					

Treatment-related Characteristics

Cancer	Colorectal	Female Breast	Head and neck	Liver	Malignant melanoma of the skin	Oesophagus	Prostate	Trachea, bronchus and lung
Screen-detected	Yes*	Yes*						
	No	No						
	NK	NK						
Clinical trial		Yes*						
		No						
Surgery	Yes*	Yes*	Yes*	Yes*		Yes*	Yes*	Yes*
	No	No	No	No		No	No	No
	NK	NK	NK	NK		NK	NK	NK
Radiotherapy	Yes*	Yes*	Yes*			Yes*	Yes*	Yes*
	No	No	No			No	No	No
	NK	NK	NK			NK	NK	NK
Chemotherapy	Yes*	Yes*	Yes*	Yes*		Yes*		Yes*
	No	No	No	No		No		No
	NK	NK	NK	NK		NK		NK
Hormonal Therapy		Yes*					Yes	
		No					No*	
		NK					NK	

Where * represents reference category

Breast Cancer

Divide tumour morphology into categories reflecting prognosis, based on US SEER data (Berg JW, Hutter RVP. *Breast Cancer. Cancer* 1995; 75(Suppl 1): 257-269).

1. Very good prognosis (5-year RS \geq 90%) Medullary carcinoma with lymphoid stroma, Mucinous (colloid) carcinoma, Papillary carcinoma, Tubular carcinoma, Adenoid cystic carcinoma, Cribriform carcinoma
2. Good prognosis (5-year RS 80-89%) Lobular carcinoma, Medullary carcinoma NOS, Duct and lobular carcinoma, Comedocarcinoma, Scirrhous carcinoma
3. Intermediate prognosis (5-year RS 70-79%) Ductal carcinoma NOS, Paget's disease
4. Poor prognosis (5-year RS 60-69%) Adenocarcinoma NOS, Carcinoma NOS
5. Very poor prognosis Inflammatory carcinoma
6. Other or not known

See table below for ICD-O M-codes

Morphology categories	Morphology codes**
1. Very good prognosis	8050, 8200-8201, 8211, 8260, 8480-8481, 8503, 8512,
2. Good prognosis	8141, 8501, 8510-8511, 8520-8521, 8522
3. Intermediate prognosis	8500, 8540-8543
4. Poor prognosis	8010-8011, 8012-8022, 8140
5. Very poor prognosis	8530
6. Other or not known	All other M-codes

Colorectal Cancer

Divide tumour morphology into categories: polyp-related, poor and other

Polyp-related = 8210/3, 8221/3, 8261/3, 8263/3

Poor = 8020/3, 8480/3, 8481/3, 8490/3

Other/NK = all other morphology codes ending in /3

Head and Neck Cancer

Divide tumour site into categories:

Lip (C00)

Oral cavity (C01-C06)

Salivary glands (C07-C08)

Pharynx (C09-C14)

Nasal cavity, middle ear, sinuses (C30-C31)

Larynx (C32)

Liver Cancer

Divide tumour histology into categories: liver cell carcinoma, intrahepatic bile duct carcinoma, sarcomas and others combined

Liver cell carcinoma = C22.0

Intrahepatic bile duct carcinoma = C22.1

Sarcomas = C22.3-C22.4

Others combined = C22.2, C22.7, C22.9

Lung Cancer

Divide tumour morphology into categories: small cell vs other

Small cell = M-8041/3 – M-8045/3

Other = all other morphology codes ending in /3

Malignant Melanoma of Skin

Divide morphology into categories:

Superficial spreading melanoma = 8743/3

Nodular melanoma = 8721/3

Lentigo malignant melanoma = 8742/3

Acral lentiginous melanoma = 8744/3

All other melanomas combined ending in /3

Oesophageal Cancer

Divide tumour morphology into categories:

Squamous cell carcinoma = 8050/3-8078/3, 8083/3-8084/3

Adenocarcinoma = 8140/3-8141/3, 8143/3-8145/3, 8190/3-8231/3, 8260/3-8263/3, 8310/3, 8401/3, 8480/3-8490/3, 8550/3-8551/3, 8570/3-8574/3, 8576/3

All other melanomas combined ending in /3

Divide tumour subsite into categories:

Upper (C15.0, C15.3)

Middle (C15.1, C15.4)

Lower (C15.2, C15.5)

Other or unspecified (C15.8-C15.9)