

# Lung cancer: conditional survival by sex and cancer network

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# Patients and methods

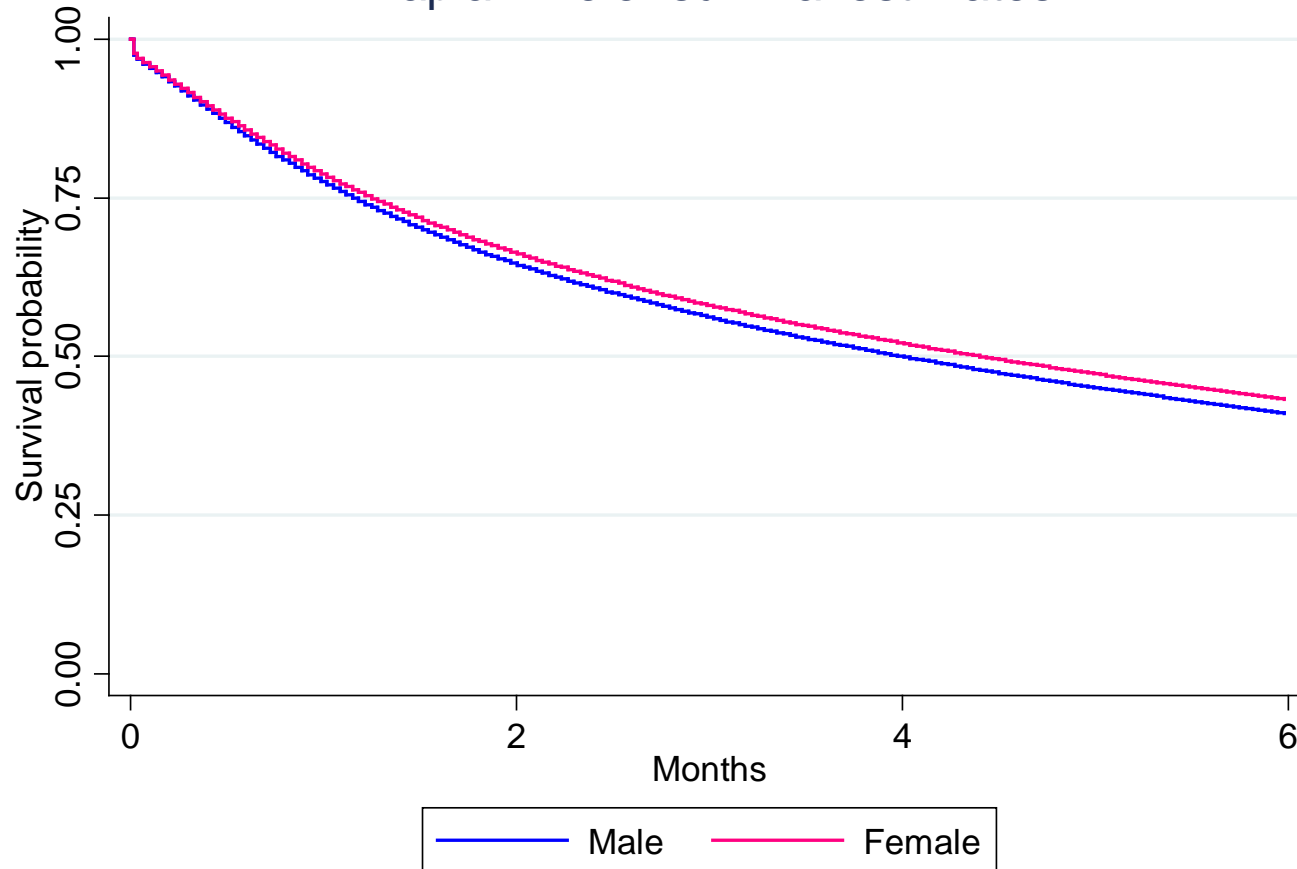
- We extracted data on patients diagnosed and resident in England, with lung cancer (ICD10 C33 and C34), between 1998 and 2006 from the UK cancer repository dataset.
- We used Kaplan-Meier analysis to estimate overall and conditional (six months to 1 year, 1 to 2 years, 2 to 5 years and 5 to 9 years) survival, by sex and cancer network.



# Survival curves (0-6 months)

Lung cancer patients, England, 1998-2006, by sex.

Kaplan-Meier survival estimates



# Survival (0-6 months)

## Six months cancer survival, England, 1998-2006, by sex and cancer network

Cancer network	Male					Female				
	No. at	Deaths	Survival (%)	95% CI		No. at	Deaths	Survival (%)	95% CI	
	risk			Lower	Upper	risk			Lower	Upper
3 Counties	2,730	1,603	40.1	38.3	42.0	1,634	881	45.0	42.6	47.5
Anglia	8,111	4,668	41.6	40.5	42.6	4,782	2,599	44.4	42.9	45.8
Arden	2,761	1,566	42.5	40.6	44.3	1,669	933	43.1	40.7	45.5
Avon, Somerset and Wiltshire	4,971	2,914	40.4	39.0	41.8	3,014	1,714	42.3	40.5	44.1
Central South Coast	5,556	3,287	40.0	38.7	41.3	3,508	1,956	43.3	41.6	44.9
Dorset	2,357	1,341	41.9	39.9	44.0	1,489	830	43.3	40.7	45.8
East Midlands	12,048	7,056	40.4	39.5	41.3	7,446	4,134	43.2	42.1	44.4
Essex	4,079	2,301	42.5	41.0	44.1	2,620	1,495	41.6	39.7	43.5
Greater Manchester and Cheshire	11,006	6,581	39.1	38.2	40.0	7,722	4,435	41.3	40.2	42.4
Greater Midlands	6,404	3,810	39.5	38.3	40.7	3,537	1,977	43.0	41.3	44.6
Humber and Yorkshire Coast	4,196	2,408	41.7	40.2	43.2	2,731	1,482	44.8	42.9	46.6
Kent & Medway	4,969	2,990	38.7	37.4	40.1	3,195	1,890	39.9	38.2	41.6
Lancashire and South Cumbria	5,375	3,334	36.9	35.6	38.2	3,765	2,281	38.3	36.7	39.8
Merseyside and Cheshire	7,929	4,452	43.1	42.0	44.2	6,274	3,377	45.3	44.1	46.6
Mount Vernon	3,043	1,781	40.5	38.7	42.3	2,004	1,154	41.2	39.0	43.4
North East London	4,191	2,386	42.3	40.8	43.8	2,695	1,466	44.7	42.8	46.6
North London	3,663	2,032	43.7	42.0	45.3	2,409	1,295	45.4	43.3	47.4
North Trent	7,027	4,323	37.5	36.3	38.6	4,557	2,669	40.4	38.9	41.8
North of England	13,464	7,738	41.6	40.7	42.4	10,029	5,563	43.5	42.6	44.5
Pan Birmingham	6,012	3,398	42.6	41.3	43.8	3,576	1,940	44.8	43.2	46.5
Peninsula	4,903	2,895	40.0	38.6	41.4	3,084	1,721	43.4	41.6	45.1
South East London	4,368	2,351	45.1	43.6	46.6	2,947	1,528	47.3	45.5	49.1
South West London	3,691	1,980	45.3	43.7	47.0	2,755	1,443	46.5	44.6	48.4
Surrey, West Sussex and Hampshire	2,824	1,541	44.3	42.4	46.1	1,915	1,018	45.7	43.4	47.9
Sussex	3,536	2,100	39.5	37.8	41.1	2,415	1,449	39.0	37.0	41.0
Thames Valley	5,543	3,292	39.7	38.4	41.0	3,502	2,041	40.6	39.0	42.3
West London	3,901	2,073	46.0	44.4	47.5	2,606	1,284	49.8	47.8	51.7
Yorkshire	9,201	5,311	41.4	40.4	42.4	6,835	3,738	44.3	43.1	45.5
<b>Total</b>	<b>157,859</b>	<b>91,512</b>				<b>104,715</b>	<b>58,293</b>			



# Survival (0-6 months)

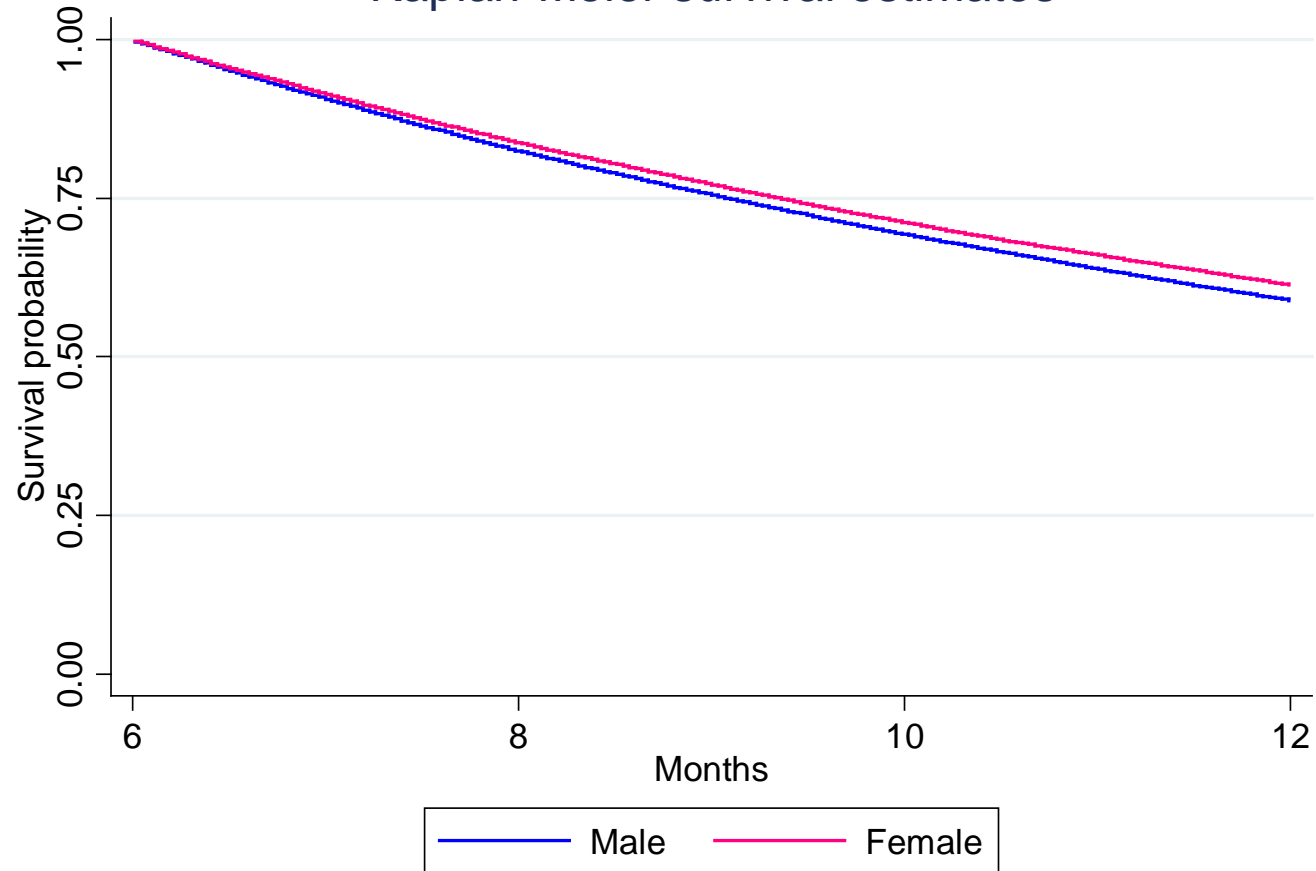
Lung cancer patients, England, 1998-2006, by sex and cancer network.



# Conditional survival curves (6 months-1 year)

Lung cancer patients, England, 1998-2006, by sex.

Kaplan-Meier survival estimates



# Conditional survival (6 months-1 year)

First year cancer survival, conditional (6 month) , England, 1998-2006, by sex and cancer network

Cancer network	Male					Female				
	No. at risk	Deaths	Survival (%)	95% CI		No. at risk	Deaths	Survival (%)	95% CI	
				Lower	Upper				Lower	Upper
3 Counties	1,021	392	60.5	57.4	63.5	683	244	63.2	59.4	66.8
Anglia	3,190	1,274	58.8	57.1	60.5	1,970	734	61.8	59.5	63.9
Arden	1,119	483	55.6	52.6	58.5	681	284	57.3	53.5	61.0
Avon, Somerset and Wiltshire	1,888	703	61.7	59.4	63.9	1,208	441	62.3	59.4	65.0
Central South Coast	2,102	835	59.3	57.1	61.4	1,420	583	57.8	55.1	60.4
Dorset	928	345	61.7	58.5	64.8	602	226	61.2	57.1	65.1
East Midlands	4,564	1,761	60.3	58.8	61.7	3,004	1,143	60.6	58.8	62.3
Essex	1,640	686	57.0	54.5	59.4	1,013	381	61.2	58.1	64.2
Greater Manchester and Cheshire	4,051	1,619	59.0	57.4	60.5	2,968	1,085	62.3	60.5	64.1
Greater Midlands	2,401	967	58.6	56.6	60.6	1,421	525	61.8	59.2	64.3
Humber and Yorkshire Coast	1,662	677	58.1	55.7	60.5	1,151	446	60.2	57.3	63.0
Kent & Medway	1,811	749	57.4	55.1	59.7	1,201	443	62.1	59.3	64.8
Lancashire and South Cumbria	1,868	786	57.1	54.8	59.3	1,348	556	57.4	54.7	60.1
Merseyside and Cheshire	3,252	1,226	61.4	59.7	63.1	2,710	989	62.5	60.7	64.4
Mount Vernon	1,175	507	55.9	53.0	58.7	775	323	57.4	53.7	60.8
North East London	1,690	691	58.2	55.8	60.5	1,138	420	61.9	58.9	64.7
North London	1,521	595	59.8	57.2	62.2	1,033	321	68.1	65.1	70.8
North Trent	2,486	1,036	57.8	56.5	59.2	1,725	647	60.9	59.3	62.4
North of England	5,308	2,176	57.3	55.3	59.2	4,132	1,570	61.3	58.9	63.5
Pan Birmingham	2,427	1,014	56.9	54.9	58.9	1,510	590	60.1	57.6	62.6
Peninsula	1,858	709	60.4	58.1	62.6	1,276	466	62.2	59.4	64.9
South East London	1,860	750	58.4	56.1	60.7	1,324	503	60.9	58.1	63.5
South West London	1,582	615	60.4	57.9	62.8	1,209	420	64.0	61.1	66.7
Surrey, West Sussex and Hampshire	1,167	464	58.9	56.0	61.8	823	288	63.7	60.2	66.9
Sussex	1,320	551	57.2	54.5	59.9	886	361	57.6	54.2	60.8
Thames Valley	2,077	822	59.0	56.8	61.1	1,341	513	60.5	57.8	63.1
West London	1,687	613	62.8	60.4	65.1	1,222	401	66.3	63.5	68.9
Yorkshire	3,627	1,472	58.4	56.7	60.0	2,859	1,108	60.1	58.2	61.9
<b>Total</b>	<b>61,282</b>	<b>24,518</b>				<b>42,633</b>	<b>16,011</b>			



# Conditional survival (6 months-1year)

Lung cancer patients, England, 1998-2006, by sex and cancer network.

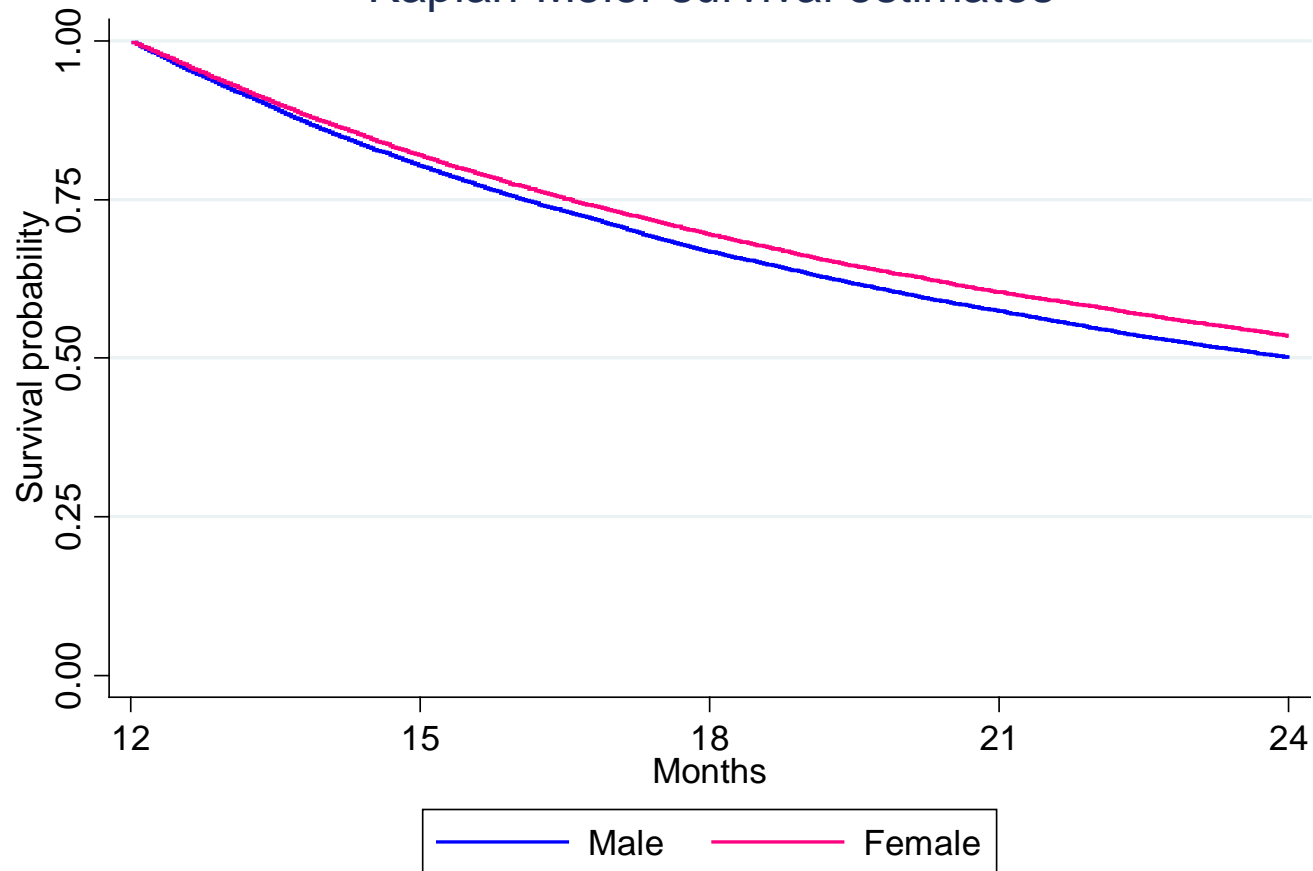




# Conditional survival curves (1-2 years)

Lung cancer patients, England, 1998-2006, by sex.

Kaplan-Meier survival estimates



# Conditional survival (1-2 years)

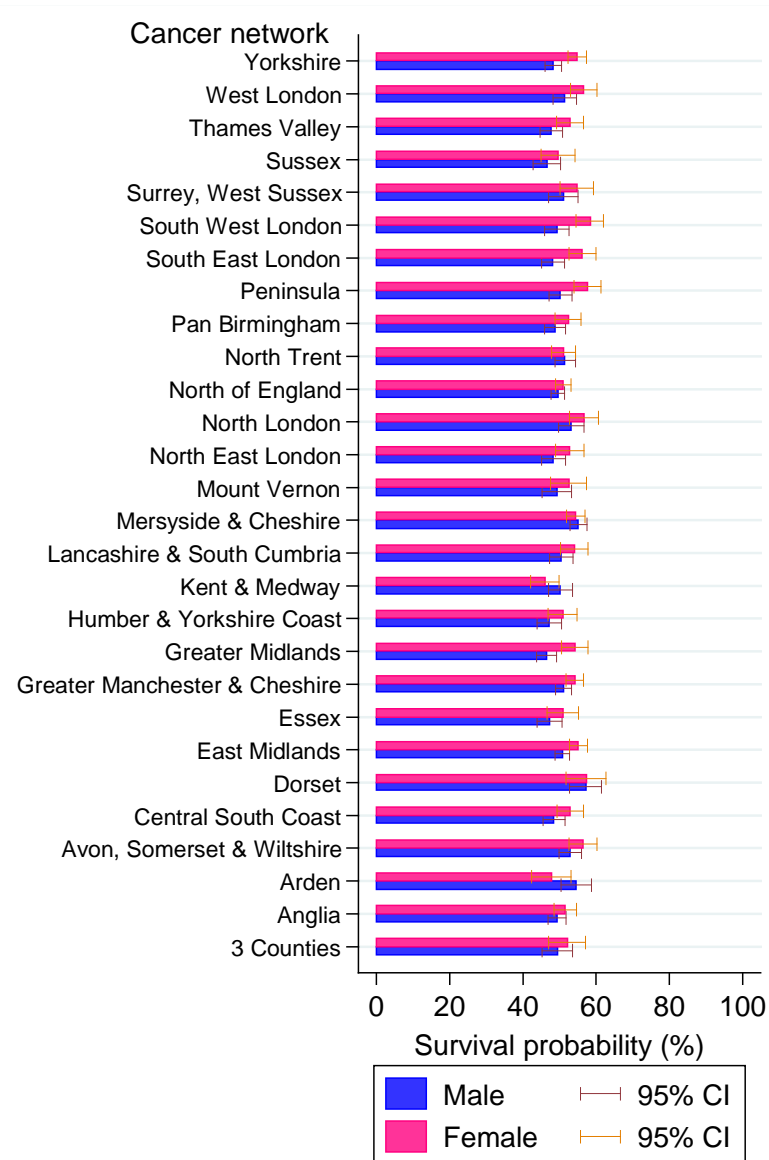
Second year cancer survival, conditional (one year), England, 1998-2006, by sex and cancer network

Cancer network	Male					Female				
	No. at risk	Deaths	Survival (%)	95% CI		No. at risk	Deaths	Survival (%)	95% CI	
				Lower	Upper				Lower	Upper
3 Counties	584	279	49.5	45.2	53.6	405	182	52.2	47.0	57.1
Anglia	1,750	841	49.4	46.9	51.8	1,146	515	51.6	48.5	54.6
Arden	584	253	54.6	50.4	58.7	366	179	47.8	42.4	53.1
Avon, Somerset and Wiltshire	1,096	485	53.0	49.9	56.0	701	284	56.5	52.5	60.2
Central South Coast	1,176	575	48.5	45.6	51.5	773	344	53.0	49.3	56.6
Dorset	534	218	57.2	52.8	61.4	343	137	57.4	51.7	62.6
East Midlands	2,574	1,207	50.7	48.7	52.7	1,691	715	55.2	52.7	57.7
Essex	879	436	47.3	43.9	50.7	577	264	51.0	46.6	55.1
Greater Manchester and Cheshire	2,243	1,040	51.1	49.0	53.3	1,727	753	54.2	51.7	56.6
Greater Midlands	1,328	680	46.5	43.7	49.2	815	349	54.2	50.6	57.7
Humber and Yorkshire Coast	905	456	47.2	43.8	50.6	655	304	50.9	46.9	54.8
Kent and Medway	979	457	50.3	47.0	53.5	705	356	46.1	42.2	49.9
Lancashire and South Cumbria	1,020	477	50.6	47.3	53.7	725	315	54.0	50.2	57.7
Merseyside and Cheshire	1,886	814	55.2	52.9	57.5	1,594	683	54.4	51.8	56.9
Mount Vernon	627	302	49.4	45.3	53.3	423	192	52.6	47.6	57.3
North East London	928	458	48.4	45.0	51.7	660	298	52.8	48.8	56.7
North London	856	379	53.2	49.7	56.6	660	267	56.8	52.7	60.6
North Trent	1,332	612	49.5	47.6	51.4	978	447	51.0	48.9	53.1
North of England	2,873	1,379	51.6	48.7	54.3	2,363	1,101	51.1	47.8	54.3
Pan Birmingham	1,287	621	48.8	46.0	51.7	857	381	52.4	48.8	55.8
Peninsula	1,031	483	50.3	47.1	53.4	741	296	57.7	53.9	61.3
South East London	1,015	498	48.3	45.0	51.4	748	309	56.3	52.5	59.9
South West London	910	438	49.3	45.9	52.6	720	281	58.4	54.6	62.1
Surrey, West Sussex and Hampshire	640	297	51.1	47.0	55.0	481	208	54.9	50.2	59.3
Sussex	718	362	46.6	42.8	50.3	472	227	49.7	45.0	54.2
Thames Valley	1,127	553	47.7	44.7	50.7	748	335	52.9	49.2	56.6
West London	1,005	459	51.5	48.2	54.6	760	312	56.7	53.0	60.3
Yorkshire	1,990	977	48.3	46.0	50.5	1,600	682	54.8	52.3	57.3
<b>Total</b>	<b>33,877</b>	<b>16,036</b>				<b>24,434</b>	<b>10,716</b>			



# Conditional survival (1-2 years)

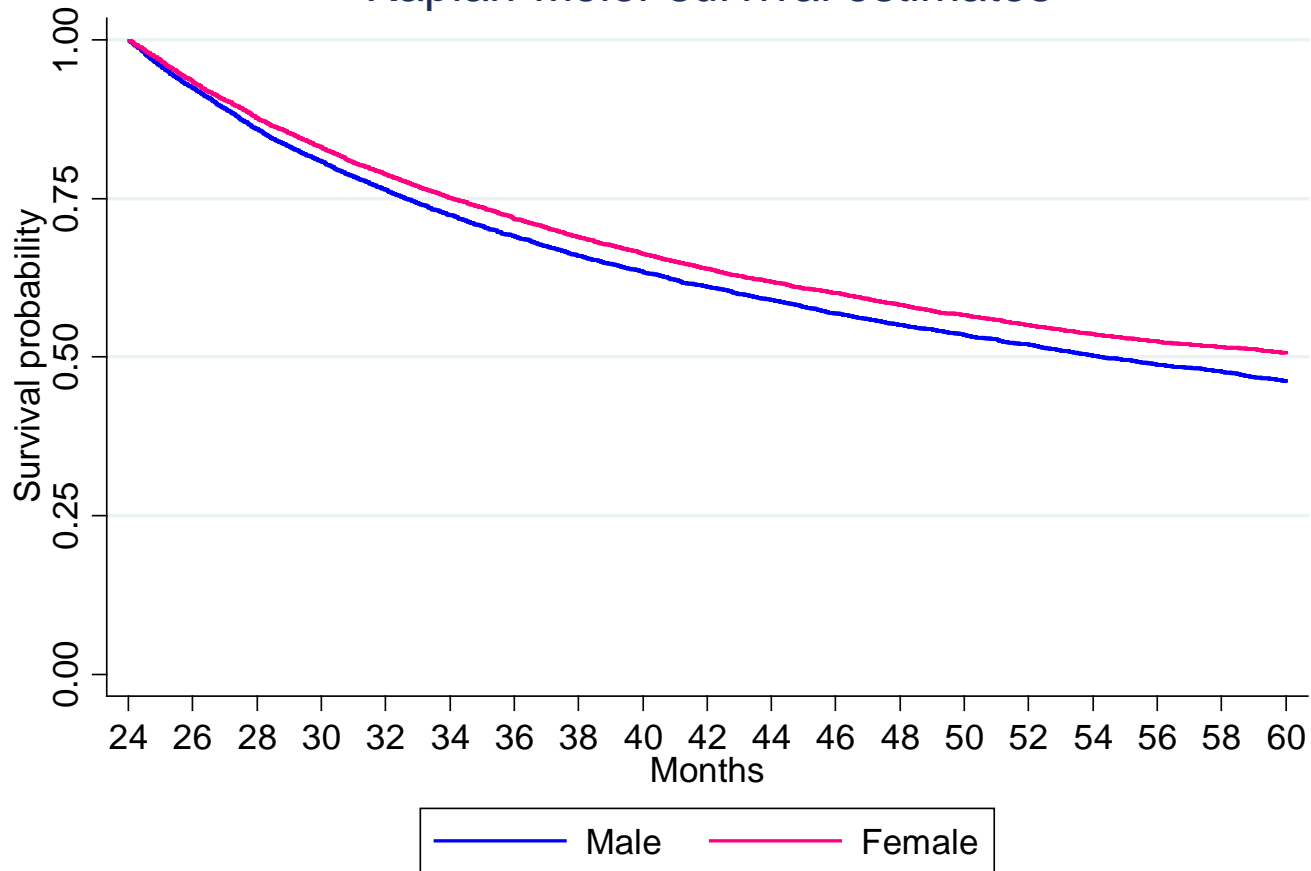
Lung cancer patients, England, 1998-2006, by sex.



# Conditional survival curves (2-5 years)

Lung cancer patients, England, 1998-2006, by sex.

Kaplan-Meier survival estimates



# Conditional survival (2-5 years)

Fifth year cancer survival, conditional (two year), England, 1998-2006, by sex and cancer network

Cancer network	Male					Female				
	No. at risk	Deaths	Survival (%)	95% CI		No. at risk	Deaths	Survival (%)	95% CI	
				Lower	Upper				Lower	Upper
3 Counties	243	109	48.6	41.5	55.3	185	72	55.9	47.7	63.4
Anglia	745	354	42.5	38.3	46.6	507	218	49.8	44.8	54.6
Arden	281	139	45.1	38.7	51.3	145	61	49.2	39.4	58.3
Avon, Somerset and Wiltshire	500	220	47.9	42.9	52.8	325	135	47.6	41.0	54.0
Central South Coast	498	212	50.6	45.5	55.4	350	140	51.0	44.7	56.9
Dorset	276	123	45.0	38.0	51.7	161	65	51.9	42.7	60.3
East Midlands	1,124	500	46.6	43.2	49.9	791	319	52.3	48.2	56.2
Essex	352	184	39.1	33.3	44.9	248	112	45.6	38.3	52.6
Greater Manchester and Cheshire	994	450	45.3	41.7	48.8	798	319	52.1	48.1	56.0
Greater Midlands	542	261	44.5	39.8	49.1	374	136	55.7	49.7	61.3
Humber and Yorkshire Coast	379	180	46.6	41.0	52.0	285	114	50.9	43.9	57.5
Kent and Medway	422	194	45.3	39.7	50.7	271	123	45.4	38.4	52.2
Lancashire and South Cumbria	445	208	43.8	38.5	49.0	342	128	56.1	50.0	61.8
Merseyside and Cheshire	946	404	48.7	45.0	52.3	745	264	57.4	53.2	61.3
Mount Vernon	274	120	50.7	44.0	57.0	200	80	51.7	43.5	59.3
North East London	397	189	44.2	38.6	49.6	309	139	47.4	41.0	53.5
North London	385	167	49.8	44.0	55.2	314	134	50.4	44.1	56.5
North Trent	595	245	42.1	39.0	45.2	422	177	44.1	40.7	47.4
North of England	1,239	615	51.5	46.8	55.9	1,049	507	49.5	43.9	54.9
Pan Birmingham	532	235	48.8	44.0	53.5	369	142	54.8	48.9	60.3
Peninsula	453	198	46.5	41.0	51.8	368	130	57.1	51.1	62.6
South East London	429	204	43.2	37.8	48.5	360	156	48.2	42.2	54.0
South West London	390	169	49.3	43.6	54.7	349	126	56.2	50.0	62.0
Surrey, West Sussex and Hampshire	283	129	46.7	40.0	53.1	227	116	39.7	32.4	46.9
Sussex	288	128	46.9	40.1	53.4	207	88	50.1	42.2	57.5
Thames Valley	467	219	45.6	40.5	50.6	342	153	46.5	40.3	52.5
West London	446	175	54.9	49.5	59.9	361	134	54.9	48.8	60.6
Yorkshire	838	401	43.2	39.3	47.0	744	319	48.2	43.9	52.3
<b>Total</b>	<b>14,763</b>	<b>6,732</b>				<b>11,148</b>	<b>4,607</b>			



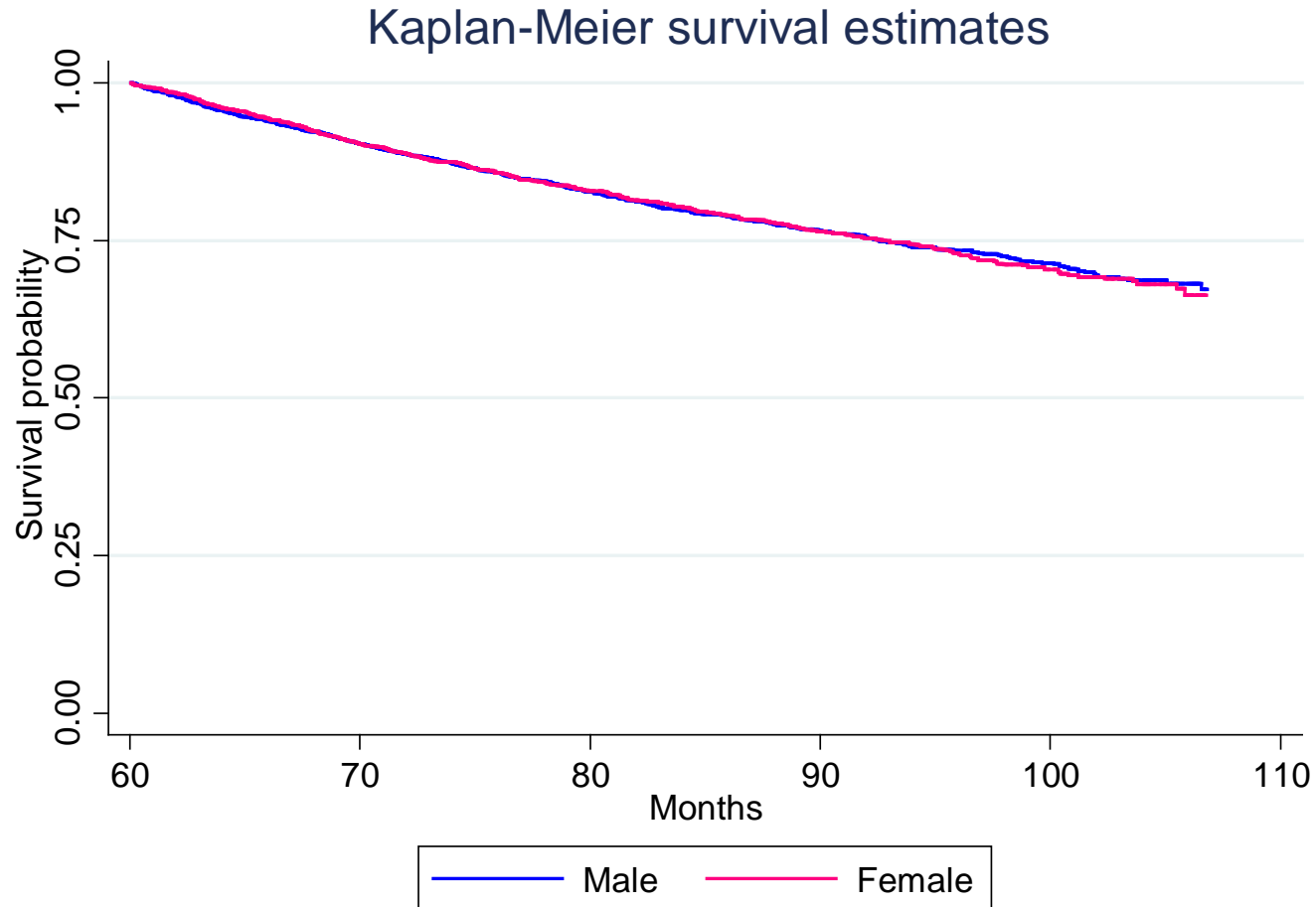
# Conditional survival (2-5 years)

Lung cancer patients, England, 1998-2006, by sex.



# Conditional survival curve (5-9 years)

Lung cancer patients, England, 1998-2006, by sex.



# Conditional (5-9 years)

**Ninth year cancer survival, conditional (five-year), England, 1998-2006, by sex and cancer network**

Cancer network	Male					Female				
	No. at risk	Deaths	Survival (%)	95% CI		No. at risk	Deaths	Survival (%)	95% CI	
				Lower	Upper				Lower	Upper
3 Counties	75	12	77.6	62.6	87.2	65	12	0	0	0
Anglia	161	30	73.6	63.6	81.2	139	30	66.0	52.5	76.6
Arden	83	21	64.2	49.1	75.9	35	10	0.0	0.0	0.0
Avon, Somerset and Wiltshire	132	25	69.6	56.9	79.3	76	10	84.7	73.1	91.6
Central South Coast	141	23	77.2	67.3	84.5	94	16	0	0	0
Dorset	66	12	71.1	53.3	83.1	43	6	0	0	0
East Midlands	294	47	75.6	68.0	81.7	231	29	73.2	59.4	83.0
Essex	74	21	57.6	39.6	71.9	57	11	59.9	31.6	79.6
Greater Manchester and Cheshire	244	53	62.1	51.6	71.0	234	36	57.0	27.8	78.1
Greater Midlands	142	23	62.6	40.6	78.4	109	16	78.5	65.4	87.1
Humber and Yorkshire Coast	100	26	57.2	38.2	72.3	67	16	44.3	20.7	65.7
Kent and Medway	97	17	66.1	47.7	79.4	58	13	0	0	0
Lancashire and South Cumbria	121	28	0	0	0	102	17	74.0	60.5	83.5
Merseyside and Cheshire	260	48	57.7	41.2	71.2	207	36	60.8	45.1	73.3
Mount Vernon	88	15	77.6	64.5	86.4	52	9	0.0	0.0	0.0
North East London	102	16	54.5	26.7	75.7	87	22	59.5	43.3	72.5
North London	113	13	78.9	64.0	88.2	83	14	0	0	0
North Trent	159	36	0.0	0.0	0.0	112	14	0	0	0
North of England	295	53	70.4	61.0	78.0	250	63	50.3	29.3	68.0
Pan Birmingham	153	29	50.8	19.6	75.5	114	12	82.6	69.6	90.4
Peninsula	109	18	71.4	53.8	83.2	110	29	58.0	42.2	71.0
South East London	102	17	68.3	43.4	84.0	91	24	52.6	33.4	68.7
South West London	118	20	77.8	66.8	85.5	107	19	68.3	52.6	79.7
Surrey, West Sussex and Hampshire	75	12	0	0	0	52	9	0.0	0.0	0.0
Sussex	68	15	0	0	0	53	7	80.6	60.8	91.1
Thames Valley	128	23	75.0	63.9	83.1	90	14	75.2	59.6	85.4
West London	136	16	84.4	75.2	90.4	104	17	61.6	38.0	78.5
Yorkshire	190	39	0	0	0	180	35	67.7	56.0	77.0
<b>Total</b>	<b>3,826</b>	<b>708</b>				<b>3,002</b>	<b>546</b>			





# Conditional survival (5-9 years)

Lung cancer patients, England, 1998-2006, by sex.



# Acknowledgment

This paper is a contribution from the National Cancer Intelligence Network ([www.ncin.org.uk](http://www.ncin.org.uk)) and is based on the information collected and quality assured by the regional cancer registries in England ([www.ukacr.org](http://www.ukacr.org)).



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