

**Clinical
impact - Skin
cancer
epidemiology
from national
registry data**

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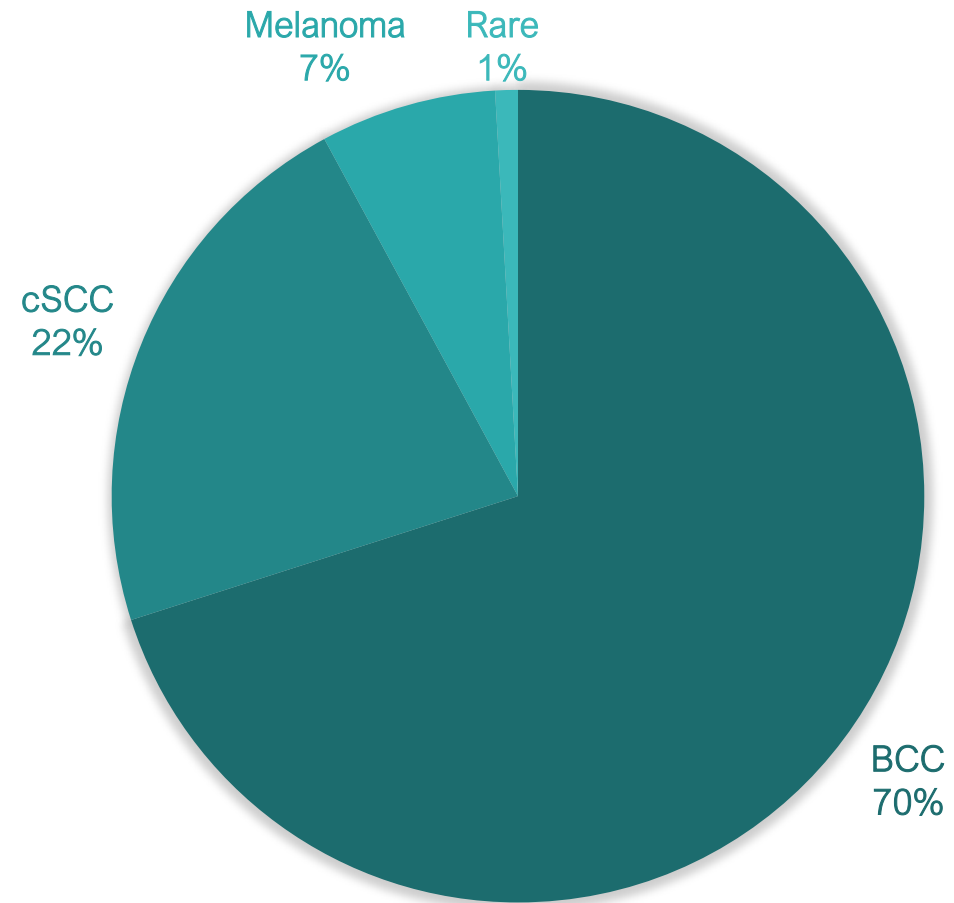
Norfolk and Norwich University Hospital

National Disease Registration Service

Conflicts of interest

None to declare

Plight of the non-melanoma skin cancer

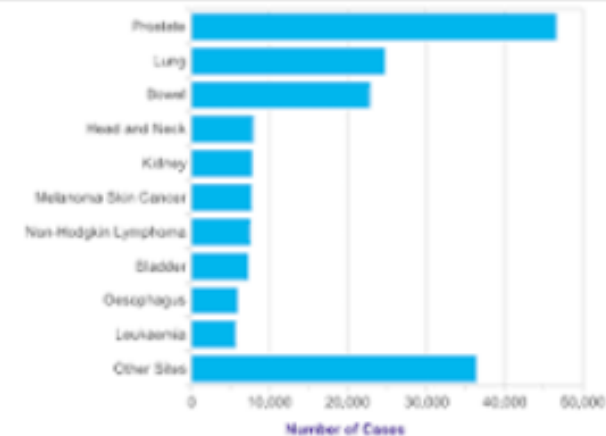




most common cancer in uk



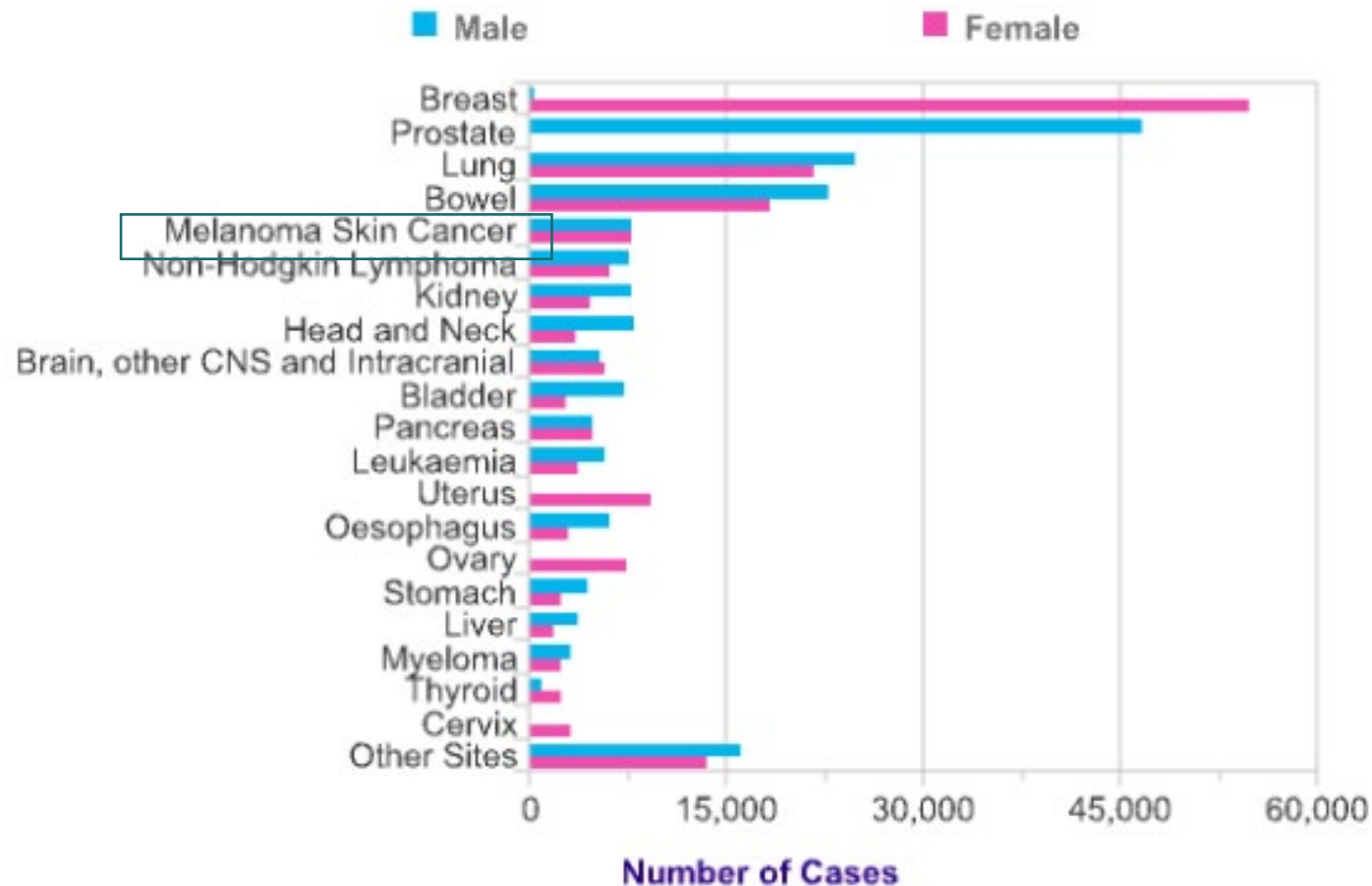
Breast cancer is the most common cancer in the UK, accounting for almost a sixth (15%) of all cases in males and females combined (2014).[1-4] The next most common cancers in UK people are **prostate** (13%), **lung** (13%), and **bowel** (11%).



[Cancer incidence for common cancers | Cancer Research UK](http://www.cancerresearchuk.org/health-professional/cancer-statistics/incidence/common-cancers-compared)

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Cancer reporting in the UK

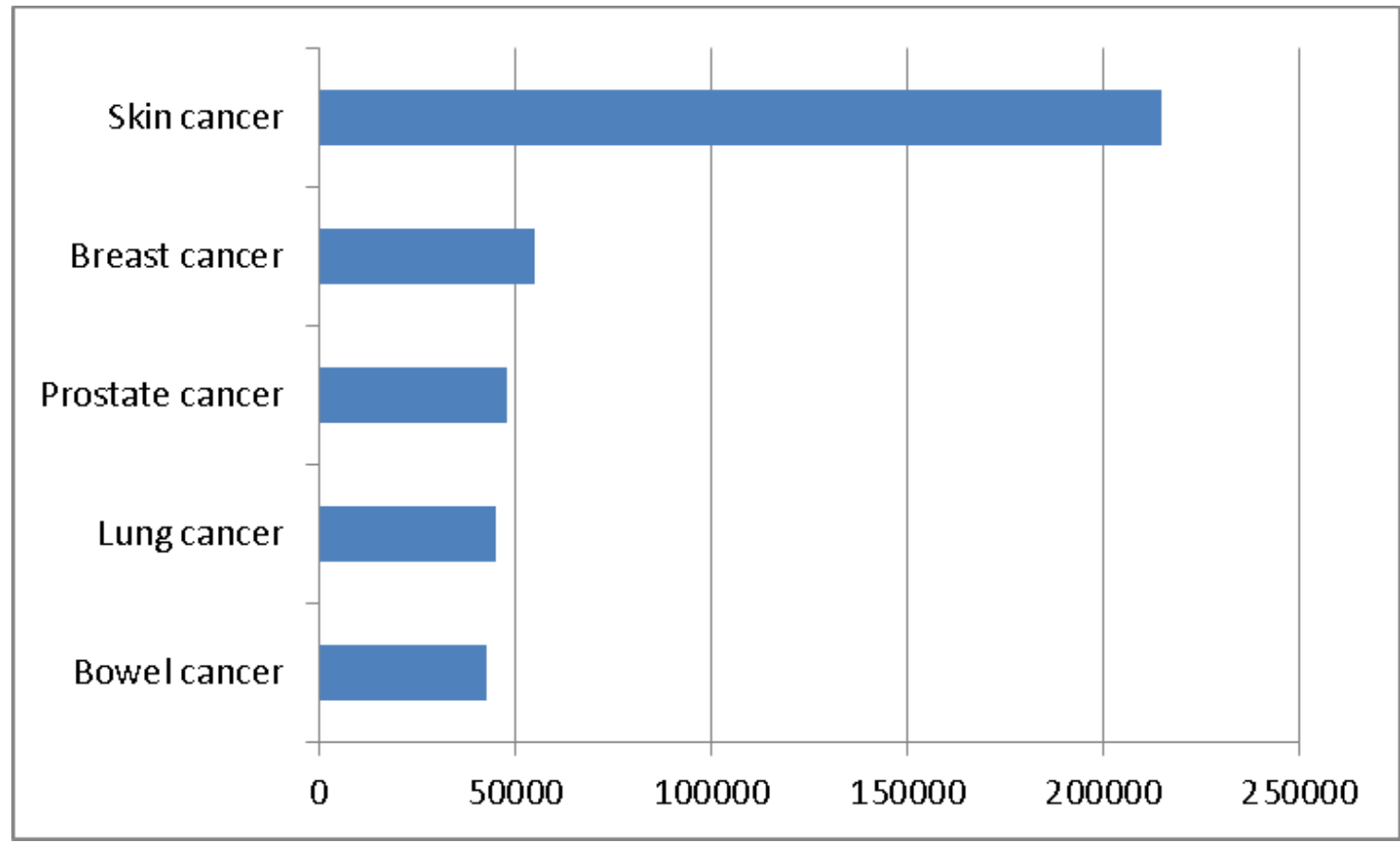


This chart excludes non-melanoma skin cancer because of known under-reporting.
Neglected/excluded- due to poor data mainly due to only counting the 1st tumour

What we should see....



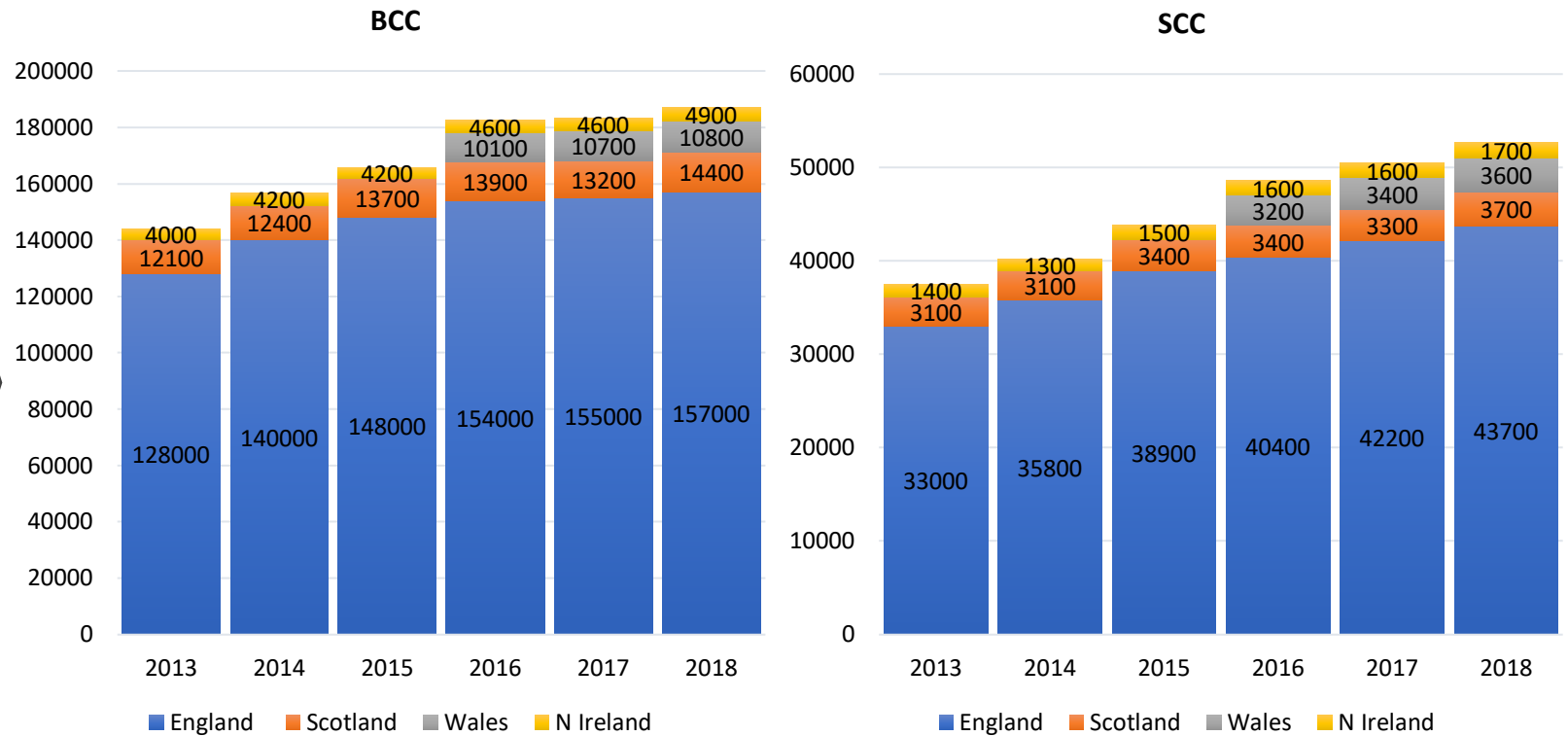
most common cancer in uk



NMSC - what are the issues?

1. BCC and cSCC Incidence
 - big data/too much data/low mortality
2. Metastatic cSCC and rare NMSC
 - little/no data published

KC incidence



2016 - Autoprocessed BCC and cSCC

2019 - Validated and published new counting method: 1st per patient per year, in addition to first all time

1st all time – 50% under-representation

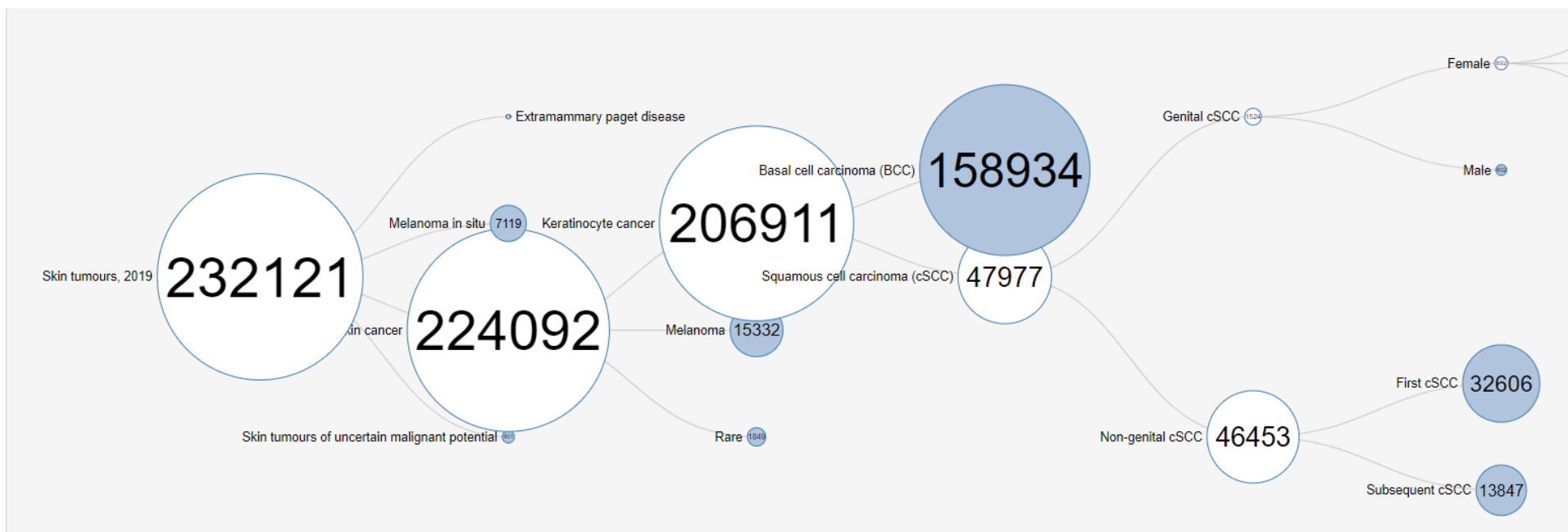
1st per patient per year – 10% under-representation, counts additional 40%

GDO working group

- Birgitta Van Bodegraven (NDRS)
- Sally Vernon (NDRS)
- Charlotte Eversfield (NDRS)
- Lizz Paley (NDRS)
- Nick Levell (Derm)
- Rubeta Matin (Derm)
- Neil Rajan (Derm)
- Catherine Harwood (Derm)
- Charlotte Proby (Derm)
- Stephen Keohane (Derm)
- Ruth Board (Onc)
- Paul Craig (Histo)
- Brian Rous (Histo)
- Shehnaz Ahmed (BAD)



cancerdata.nhs.uk/getdataout



Year	Tumour Type	Tumour Type 2	Tumour Type 3	Tumour Type 4	Tumour Type 5	Incidence	Incidence Rate	Two Week Wait percentage	Net survival 12m	Net survival 36m	Net survival 60m
2013	Skin cancer	All	All	All	All	177677	329.851	9.905	.i	.i	.i
2013	Skin cancer	Keratinocyte canc	All	All	All	163078	302.749	6.252	.i	.i	.i
2013	Skin cancer	Keratinocyte canc	Basal cell carcinom	All	All	128406	238.381	0.604	.i	.i	.i
2013	Skin cancer	Keratinocyte canc	Squamous cell car	All	All	34672	64.367	27.172	.i	.i	.i
2013	Skin cancer	Keratinocyte canc	Squamous cell car	All	Genital cSCC	1312	2.436	37.805	86.7	75	70.9
2013	Skin cancer	Keratinocyte canc	Squamous cell car	All	Non-genital cSCC	33360	61.932	26.754	.i	.i	.i
2013	Skin cancer	Melanoma	All	All	All	12885	23.921	54.591	97.6	91.7	88.5
2013	Skin cancer	Rare	All	All	All	1714	3.182	21.529	90	80.2	76
2013	Skin cancer	Rare	Appendageal (adr	All	All	484	0.899	17.769	96.1	89	81.8
2013	Skin cancer	Rare	Appendageal (adr	All	Follicular	51	0.095	17.647	101.5	101.3	96.3
2013	Skin cancer	Rare	Appendageal (adr	All	Sebaceous	123	0.228	10.569	98.4	90.5	80.4
2013	Skin cancer	Rare	Appendageal (adr	All	Sweat gland	231	0.429	20.779	94	85.8	78.9
2013	Skin cancer	Rare	Appendageal (adr	All	NOS	79	0.147	20.253	93.2	83.9	84.9
2013	Skin cancer	Rare	Merkel cell carcin	All	All	303	0.563	32.673	78.8	55.9	49.4

GDO - Skin

- 230,000 registered skin tumours per year in England (almost 700 per day!) in 2019

Of which

- 160,000 BCC
- 50,000 cSCC
- 15,000 melanoma
- 2000 rare skin cancers (MCC 300, sweat gland ca. 150, DFSP 300)
- 5000 melanoma in situ

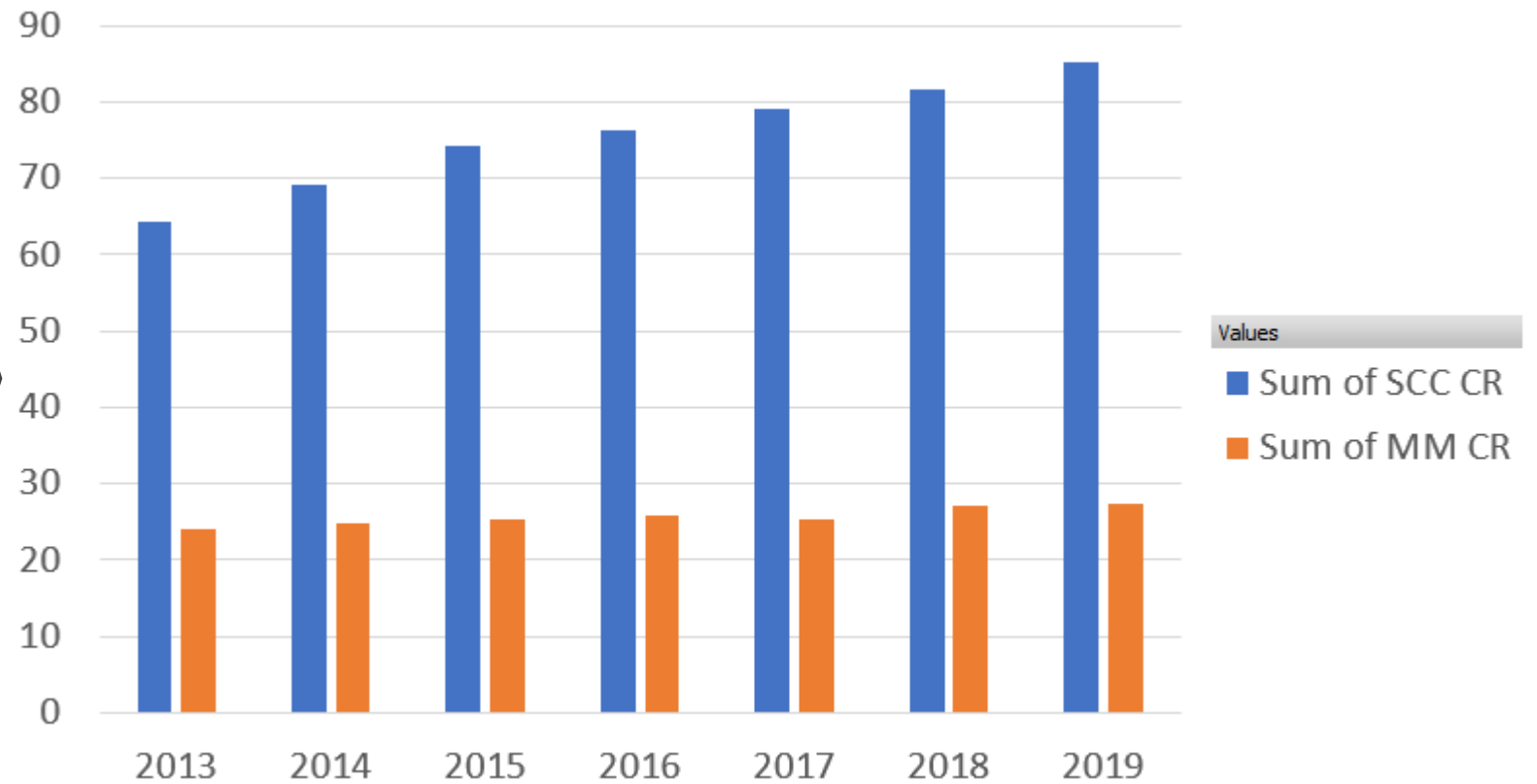
van Bodegraven B, Vernon S, Eversfield C, et al "Get Data Out" Skin: national cancer registry incidence and survival rates for all registered skin tumour groups for 2013-2019 in England. Br J Dermatol. 2023

KC incidence

Sig. Annual % change
2013-2019
BCC 2.9%*
cSCC 4.7%*
MM 2.0%

*JP 2013-2015, 2015-2019

Crude incidence rate per 100,000 PY (CR)



Overall, cancers increased by <5% over 10 years in UK
Only thyroid cancer increasing at a more rapid rate than cSCC

5 year net survival

~100%	85-90%	75-85%	50-60%	<50%
Stage I melanoma	Melanoma overall	Stage II melanoma	Stage III melanoma	Stage IV melanoma
In-situ melanoma	ccSCC overall	Sebaceous ca	Merkel Cell Ca.	
BCC	<i>Breast ca. overall</i>	Kaposi Sarcoma	Acral lentiginous Melanoma	
	<i>Prostate ca. overall</i>		Genital SCC	

~65% melanomas are stage I

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Less likely to have 2WW referral also

Deaths and crude and age standardised mortality rates

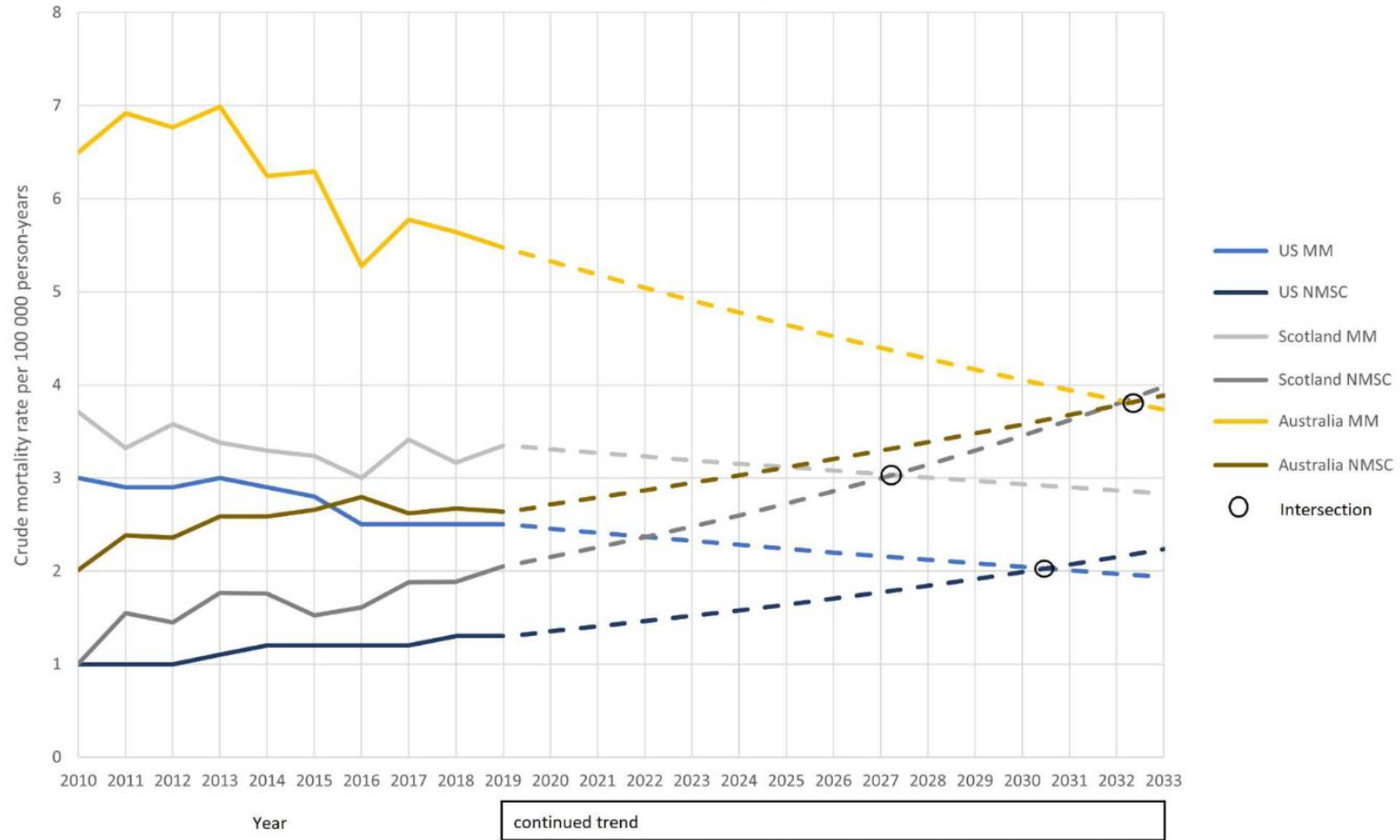
Year	England MM deaths	England MM CMR	England MM EASMR
2010	1947	3.7	4.1
2011	1999	3.8	4.2
2012	1920	3.6	3.9
2013	1981	3.7	4.1
2014	2080	3.8	4.2
2015	2075	3.8	4.1
2016	1937	3.5	3.8
2017	1984	3.6	3.8
2018	1985	3.5	3.8
2019	1922	3.4	3.6
joinpoint 2010-2019 APC		-0.9 (-1.7,-0.1)	-1.4% (-2.3, -0.6)
p value		0.027	0.006

Year	England NMSC deaths	England NMSC CMR	England NMSC ASMR
2010	481	0.9	1.1
2011	487	0.9	1.0
2012	542	1.0	1.1
2013	489	0.9	1.0
2014	626	1.2	1.3
2015	624	1.1	1.2
2016*			
2017*			
2018	693	1.2	1.3
2019	754	1.3	1.4
joinpoint 2010-2019 APC		4.24 (2.5, 6.0)	3.2 (0.5-5.8)
p value			

- Similar pattern in US, Australia, Scotland, Wales, Scandinavian registries
- Overall, cancer mortality has reduced by 10% in the last decade
- Only liver cancer mortality is increasing at a more rapid rate.

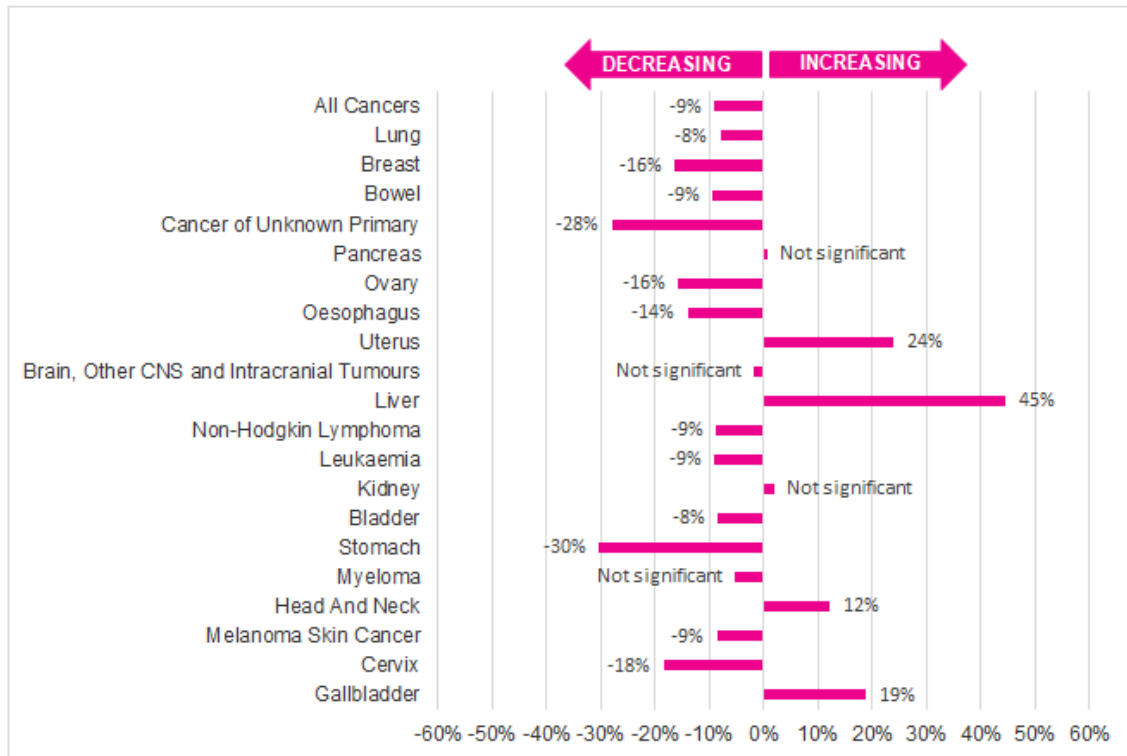
Crude mortality rates for MM and NMSC

Crude mortality rates from 2010 to 2019 with a continued trend line until 2033 for Australia, Scotland and the USA. MM, malignant melanoma; NMSC, nonmelanoma skin cancer.

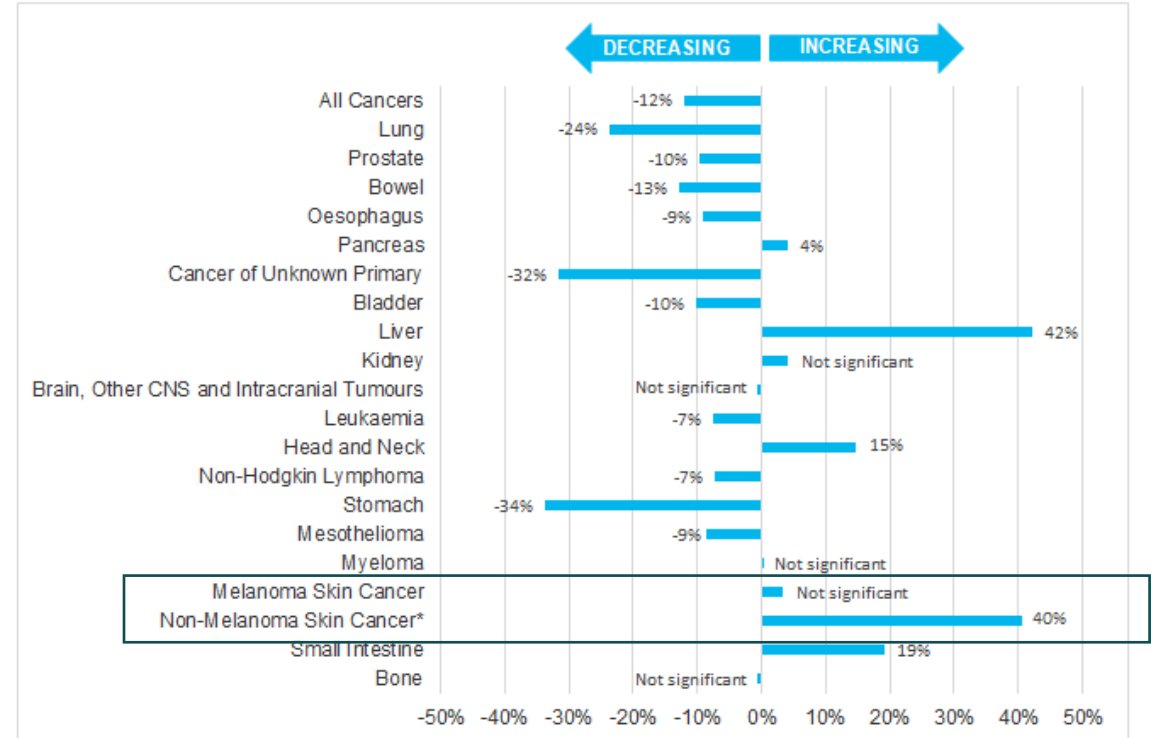


Skin cancer mortality rates

The 20 Most Common Causes of Cancer Death 2019, Percentage Change in European Age-Standardised Three Year Average Mortality Rates, Females, UK, 2007-2009 and 2017-2019



The 20 Most Common Causes of Cancer Death 2019, Percentage Change in European Age-Standardised Three Year Average Mortality Rates, Males, UK, 2007-2009 and 2017-2019



NMSC 18th commonest cause of cancer related death in UK males, 40% increase over a decade

Conclusion

cSCC incidence and mortality rates are increasing more rapidly than other cancers. SCC net survival is comparable to melanoma/breast and prostate cancer

Better prevention, staging and therapeutic options are needed for skin cancer, particularly for cSCC and rare skin cancers

All skin cancers should be included in national statistics

Acknowledgements

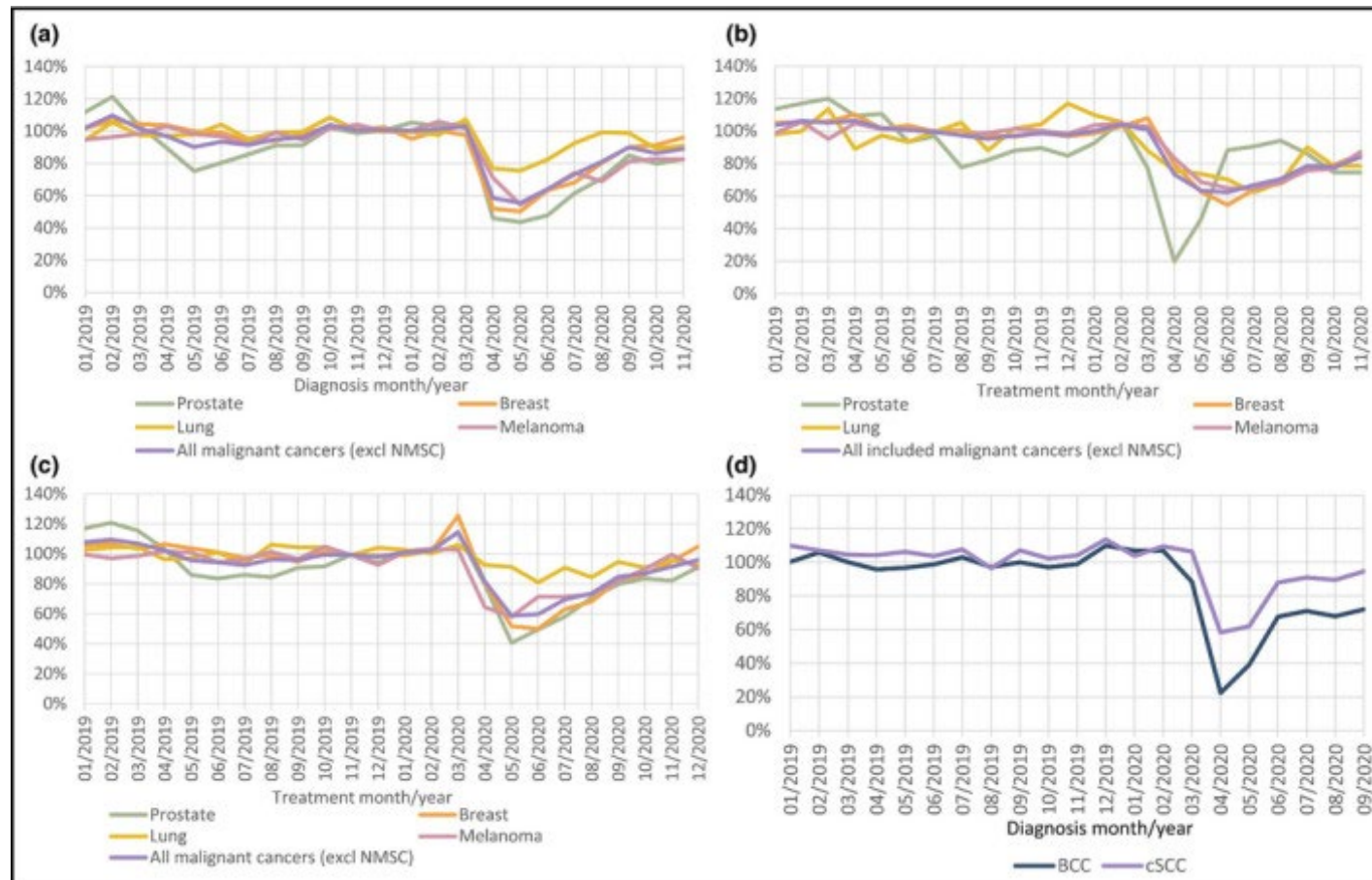
- Dr Birgitta Van Bodegraven
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- Dr Kwok Wong
- John Broggio
- Dr Brian Rous
- Dr Katherine Henson
- Dr Brian Shand
- Carlos Rocha
- Karen Graham
- Dr Sean McPhail
- Dr Andrew Deas
- Dr Eileen Morgan
- David Morrison
- Prof Irene M Leigh
- Dr Dyfed Huws
- GDO and BAD-NDRS steering committee



THE PANDEMIC

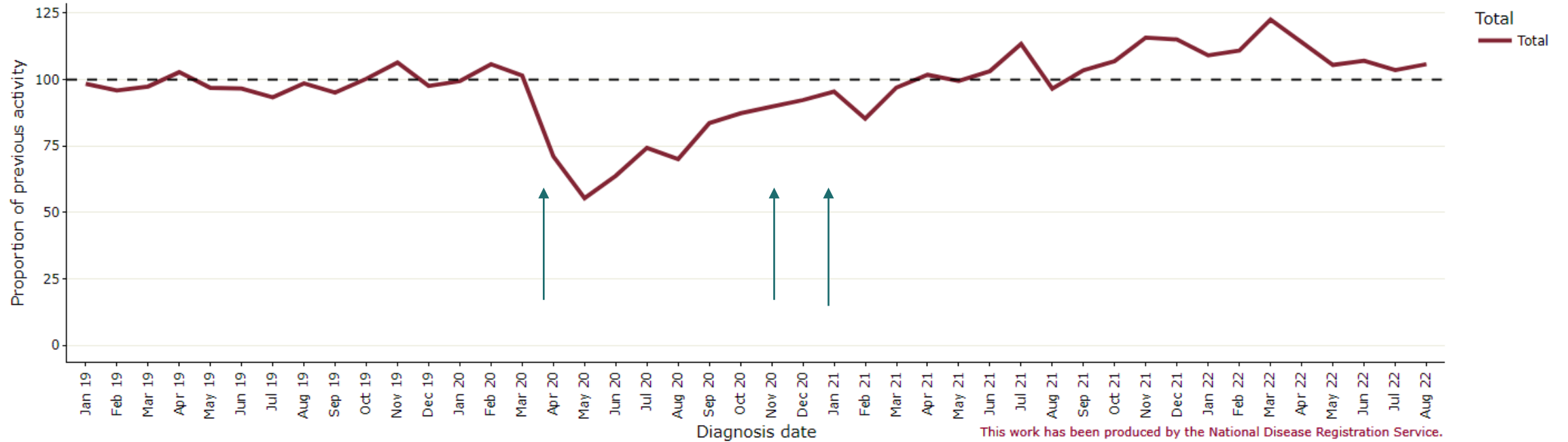


COVID-19 and skin cancer incidence



Proportion of previous activity, new cancer diagnoses, England, January 2019 to August 2022

Cancer group: Melanoma



Arrows denote lockdown periods

Melanoma data by stage 2019-2021 – 2500 fewer melanomas in 2020 vs 2019



Summary

22% fewer stage I melanomas were diagnosed in the first year of the pandemic with 28% more stage II diagnoses in 2021 vs 2019

5 year net survival
Stage I 99%
Stage II 77%

Limitations – data quality
RCRD, high % unknown stage

