Ensuring Better Treatment

National Cancer Action Team
Part of the National Cancer Programme

NHS

Quality in Nursing

Clinical Nurse Specialists in Cancer Care; Provision, Proportion and Performance

A census of the cancer specialist nurse workforce in England 2011

Contents

1 Introduction

1.1 Background

The 2011 Census of Cancer Specialist Nurses in England was commissioned by the National Cancer Action Team (NCAT) and supported by Mouchel Management (the partner of the Centre of Workforce Intelligence (CFWI)).

This work builds on the previous censuses carried out in 2007 [1]2009[2] and 2010[3] conducted to map the specialist nurse workforce in cancer care and help inform commissioning of specialist posts in a more structured and equitable fashion than had previously been possible.

Previous censuses have shown that the distribution of Cancer Specialist Nurses and in particular Clinical Nurse Specialists (CNSs) is not consistent with cancer incidence across the country. In addition, the number of posts is not proportional to cancer incidence across English Cancer Networks.

The 2010 Cancer Patient Experience Survey provided evidence that patients who had access to one to one support through a Clinical Nurse Specialist (CNS) reported more favourably on aspects of their experience, such as access to information and being given a choice of treatment compared to patients who reported not having had access to a CNS. A decision was taken to conduct the census in October 2011 in order to align data collection with the 2011 National Cancer Patient Experience Survey (designed to survey patients who were under the care of a hospital between September and November 2011) and enable further analysis of the relationship between CNS provision and patient experience.

Findings from the previous census collections have been fed into cancer policy[6,7] and data generated as a result of the census used by local healthcare and voluntary sector organisations to influence the provision of specialist posts.[8,9,10]

It is intended this document be used by commissioners, providers and clinical teams as a resource for benchmarking the provision of specialist nurse support for cancer patients in their localities.

It may be useful to read this document in conjunction with other resources such as:

- Excellence in Cancer Care: The Contribution of the Clinical Nurse Specialist. NCAT 2010[11]
- Clinical Nurse Specialists in Cancer; Provision, Proportion and Performance. NCAT 2010[3]
- Advanced Level Nursing: A Position Statement DH 2010[12]
- Manual of Cancer Services. Department of Health. 2004[13]
- NHS Cancer Commissioning Toolkit. National Cancer Intelligence Network. Updated 2011[14]
- One to one support for cancer patients. A report prepared for DH. Frontier Ecomonics. December 2010.[15]

Whilst this document does offer information regarding the ratio of cancer specialist nurses to incidence of cancer in the 28 English Cancer Networks, this does not represent guidance on an appropriate caseload. It merely demonstrates variance of provision of these posts by geographical location and tumour type.

This document aims to strengthen the argument for maintaining and expanding the provision of specialist nurse support for cancer patients in England in order to keep pace with the increase in cancer prevalence of an estimated 3.2% per year.[16]

1.2 Methods

Data were collected over a 4-week period during October-November 2011 (Census Day 17th October 2011) using a bespoke spreadsheet with drop down menus.

Areas of enquiry were informed by the previous 3 censuses. Areas of Practice are consistent with Improving Outcomes Guidance definitions. Areas of practice have been extended to include Acute Oncology Services as it was recommended in the 2009 NCAG report Chemotherapy Services in England: Ensuring Quality and Safety that all hospitals with emergency departments should establish this service.

Chemotherapy as an area of practice was removed from this census as a separate census on the chemotherapy workforce has been undertaken and will be reported separately.

As in previous years there was the facility to record the post as being supported by the charity Macmillan Cancer Support. All posts are recorded as whole time equivalents (WTE).

The spreadsheets were disseminated via the 28 cancer networks on 17th October 2011 and relied on Network Nurse Directors, trust Lead Cancer Nurses, and Directors of Nursing to collate the relevant data. Data were returned electronically from trusts to Mouchel for analysis. One month was given for returns to be made, with a further extension for Networks that had achieved a near complete response. Collection was completed by December 2011.

Data collection process:

1 Project Team and Mouchel agree census tool

2 Spreadsheet and instructions for completion sent out to Network Nurse Directors

3 Disseminated by NND's to Lead Nurses, Directors of Nursing and Cancer Service Managers

4 Data entry completed at trust level

5 Completed spreadsheets returned to Mouchel

6 Analysis by Mouchel and project Team

7 Verification of data at network level

8 Report

1.3 Criteria for selection

Inclusion

- All cancer nurse specialist posts (AFC band 6-9)
- All areas of practice (including for the first time in 2011 Acute Oncology Service (AOS))

Exclusion

- Palliative Care Nurse Specialists (collected in Specialist Palliative Care Workforce Survey 2008/09)
- Community Nurse Specialists
- Chemotherapy (a separate census was undertaken for the Chemotherapy workforce in October 2011)
- Children and Young Persons Nurse Specialists (a separate census was undertaken for this specialty in October 2011)

1.4 Headline findings

The census of the cancer specialist nurse workforce in England 2010 achieved an acute trust response rate of 96% therefore data was complete for 27 out of 28 Cancer Networks. North Trent Network's return was incomplete Chesterfield Royal Hospital failed to submit a return.

- The total reported cancer specialist nurse workforce for the 28 English Cancer Networks in 2011 was 2805.43 WTE. A rise of 1.2 % from 2010's 2771.10.
- As in previous years, the largest group by job title was Clinical Nurse Specialist (CNS). This equated to 2261.46 WTE (80% of the total workforce).
- 76.5% of cancer specialist nurse posts were banded at AFC Band 7, with approximately 20% below this at Band 6 and only 9% above this at Band 8a-8c.
- The largest group by area of practice as a percentage of the total was breast (19%). This was followed by Colorectal (14%), and Urology (12%).
- Inequities remain both geographically i.e. between networks, and also between different tumour types in terms of provision of cancer specialist nurse posts.
- Macmillan Cancer Support currently offer support for approximately one third of the cancer specialist nurse population in English Cancer Networks.
- When provision of cancer specialist nurse posts is mapped to incidence of cancer, median valuesrange from 1 WTE for 56 new cases of cancer, to 1 WTE for 233 new cases of cancer.
- There appears to have been an actual increase in Clinical Nurse Specialist posts from 2007-2011 for some areas of practice (brain/ central nervous system, lung, haematology and upper GI). However, the cancer specialist nurse workforce in general is not expanding sufficiently to keep pace with the increase in cancer prevalence.

2 2011 Census Results

2.1 Provision of CNS's

Table 1 shows the total provision of the cancer specialist nursing workforce who were reported as CNS's (this job title only) across the 28 Cancer Networks by area of practice. The results are consistent with the 2010 CNS results. The area of practice with the largest proportion of the workforce is breast, accounting for 20% followed by urology (13%) and colorectal (13%). This is consistent with the 2010 census that reported breast to be the largest proportion of the workforce at 19%.

Table 1. Sum of Network Workforce by Area of Practice

Sum of WTE	Area of Practice												
Network Name	AOS	Brain/Central Nervous System	Breast	Colorectal	Gynaecology	Haematology	Head & Neck	Lung	Malignant Dermotology	Sarcoma	Upper GI	Urology	Grand Total
3 Counties	0	1.0	10.56	5.33	2.4	4.83	2.0	3.0	2.8	1.0	3.96	8.0	44.88
Anglia	9.65	1.72	27.38	14.34	6.43	15.55	5.63	15.43	8.04	1.0	7.85	12.36	125.39
Arden	3.0	2.0	12.0	3.8	4.71	4.08	2.0	5.85	2.66	0	6.0	8.0	54.09
Avon, Somerset & Wiltshire	0	2.8	14.31	12.39	6.74	6.6	4.2	7.49	8.04	1.4	7.2	11.6	82.77
Central South Coast	1.0	1.0	11.18	7.79	5.18	8.43	3.96	5.85	4.27	0.6	3.78	10.98	64.02
Dorset	0	1.0	3.51	2.22	2.85	0.8	1.93	2.0	1.6	0	2.0	1.0	18.91
East Midlands	3.0	3.4	21.05	10.8	13.12	14.27	8.2	18.36	8.3	2.9	6.8	14.9	125.1
Essex	1.0	2.24	9.25	6.2	5.0	3.4	3.8	6.45	3.5	0	4.99	7.6	53.43
Greater Manchester & Cheshire	9.67	4.8	33.25	21.37	18.83	16.3	11.11	20.76	9.73	2.6	16.88	29.66	194.95
Greater Midlands	3.0	1.0	9.4	8.6	4.44	6.28	4.4	7.0	5.49	1.0	5.85	7.39	63.86
Humber & Yorkshire Coast	1.0	4.0	16.75	4.21	7.43	7.2	7.0	12.6	2.0	1.0	6.0	8.0	77.19
Kent & Medway	0	0	14.27	11.41	2.6	6.4	4.0	6.43	1.4	0	8.32	7.0	61.84
Lancashire & South Cumbria	0	1.0	12.7	10.65	5.0	5.0	5.0	9.0	3.93	0	8.0	8.9	69.18
Merseyside & Cheshire	7.2	2.0	17.5	13.6	7.3	10.6	4.8	10.21	7.2	1.6	22.68	13.64	118.32
Mount Vernon	0	2.0	8.4	4.0	2.67	3.55	3.33	5.8	4.0	0	3.17	7.0	43.92
North East London	2.1	1.0	12.16	8.14	6.43	8.2	4.0	8.57	2.17	0	6.0	11.31	70.08
North London	0.5	2.7	15.4	5.5	6.5	21.2	5.5	9.7	4.8	4.0	9.2	11.0	96.0
North of England	1.49	2.0	24.38	21.39	5.44	9.65	5.68	14.84	3.99	1.0	9.88	13.52	113.25
North Trent	0.5	3.0	19.5	7.6	6.4	7.9	5.5	13.18	5.8	0	11.0	5.3	85.68
North West London	2.5	2.0	17.3	9.4	6.9	6.5	4.5	8.1	4.3	0	6.8	7.2	75.5
Pan Birmingham	3.0	2.0	16.09	19.32	8.05	9.88	4.8	9.0	5.85	2.5	10.69	9.0	100.19
Peninsula	0	3.5	13.67	7.4	6.14	5.2	5.0	5.74	4.6	2.6	6.3	5.67	65.81
South East London	2.0	2.5	15.8	15.75	7.9	11.92	6.25	9.72	7.7	0	8.1	10.7	98.34
South West London	1.49	2.49	15.85	5.0	6.09	13.51	5.4	5.99	3.5	2.0	8.59	9.4	79.31
Surrey, West Sussex & Hampshire	0	0.6	8.1	6.19	4.4	3.0	2.4	5.14	1.0	0	5.0	9.08	44.91
Sussex	2.0	1.0	7.9	5.3	2.2	1.92	2.0	4.43	1.0	0	4.2	7.0	38.95
Thames Valley	1.0	3.24	10.77	8.11	5.88	5.89	2.8	5.8	3.0	1.8	6.0	8.49	62.78
Yorkshire	3.13	4.7	26.73	17.91	7.4	12.11	8.58	15.74	7.6	1.72	10.29	16.89	132.81
Grand Total	58.23	60.69	425.16	273.72	174.43	230.17	133.77	252.17	128.28	28.72	215.54	280.57	2261.46

2.2 Workforce by area of practice

Table 2 shows the total number of WTEs (all job titles) split across the area of practice with the largest proportion of the workforce is breast, accounting for 19.76%. The 2010 census also showed breast as the largest proportion of the workforce representing 19% of the total workforce.

Table 2. Total workforce by area of practice

Sum of WTE		
Area of Practice	**WTE**	**% of Total (WTE)**
AOS	111.04	3.96
Brain / Central Nervous System	66.86	2.38
Breast	554.34	19.76
Colorectal	374.95	13.37
Gynaecology	196.21	6.99
Haematology	276.67	9.86
Head&Neck	147.05	5.24
Lung	294.62	10.50
Malignant dermatology	146.74	5.23
Sarcoma	33.11	1.18
Upper GI	247.42	8.82
Urology	356.42	12.70
Grand Total	2805.43	100

Fig 1. % Workforce by area of practice

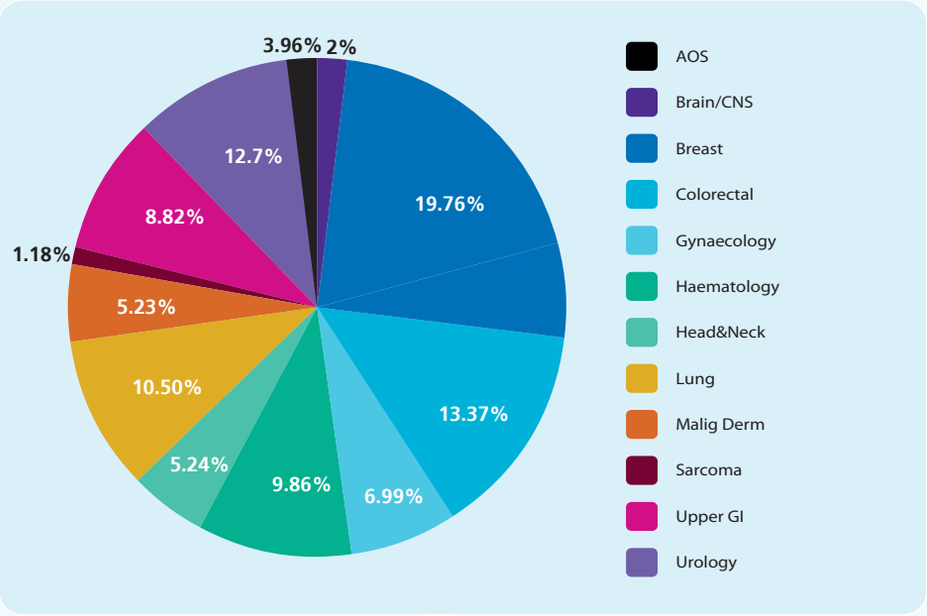


Figure 1 - The area of practice with the largest proportion of the workforce is breast, accounting for 20% followed by urology (13%) and colorectal (13%). This is consistent with the 2010 census that reported breast to be the largest proportion of the workforce at 19%.

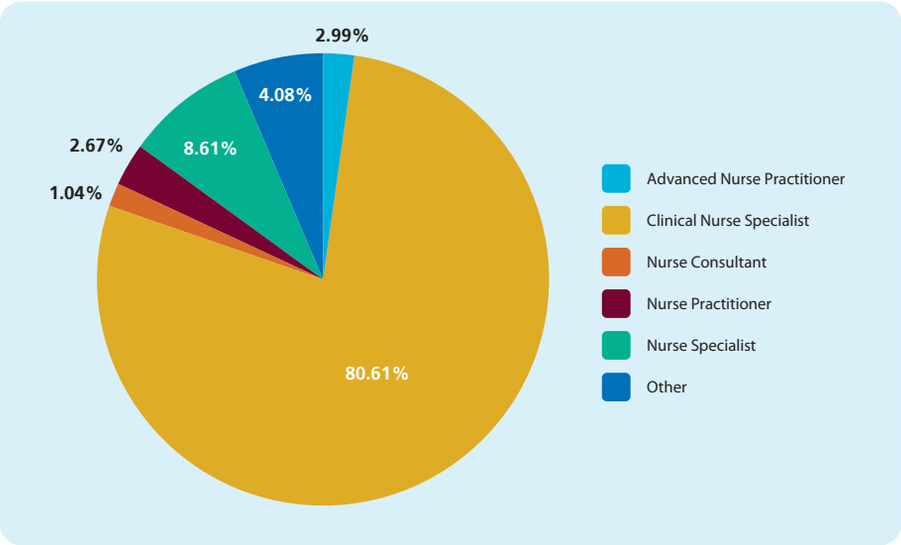
2.3 Workforce by Job Title

As in the previous censuses, clinical nurse specialist is the most common job title in all areas of practice. Nurse consultant is the least common job title and the majority of these posts are in the breast, colorectal, urology and lung areas of practice.

Table 3 shows the distribution of the workforce by all job titles and area of practice.

Sum of WTE	Job Title						
Area of Practice	Advanced Nurse Practitioner	Clinical Nurse Specialist	Nurse Consultant	Nurse Practitioner	Nurse Specialist	Other	Grand Total
AOS	25.43	58.23	4.5	10.29	5.99	6.6	111.04
Brain / CNS	0	60.69	0	0	4.47	1.7	66.86
Breast	16.08	425.16	5.8	19.03	47.12	41.15	554.34
Colorectal	7.75	273.72	8.0	14.56	57.59	13.33	374.95
Gynaecology	2.7	174.43	0.48	1.0	11.2	6.4	196.21
Haematology	4.0	230.17	2.5	4.67	23.53	11.8	276.67
Head&Neck	2.6	133.77	0	0	7.8	2.88	147.05
Lung	4.0	252.17	3.4	0	25.61	9.44	294.62
Malignant Derm	3.0	128.28	0	0	12.47	3.0	146.74
Sarcoma	1.8	28.72	1.59	0	1.0	0	33.11
Upper GI	7.0	215.54	0	2.0	13.08	9.8	247.42
Urology	9.4	280.57	3.0	23.46	31.72	8.27	356.42
Grand Total	83.75	2261.46	29.27	75.01	241.58	114.37	2805.43

Fig 2. % Workforce by job title



The "other" group accounts for less than 4% of the total workforce and is found mainly in the breast and colorectal areas of practice.

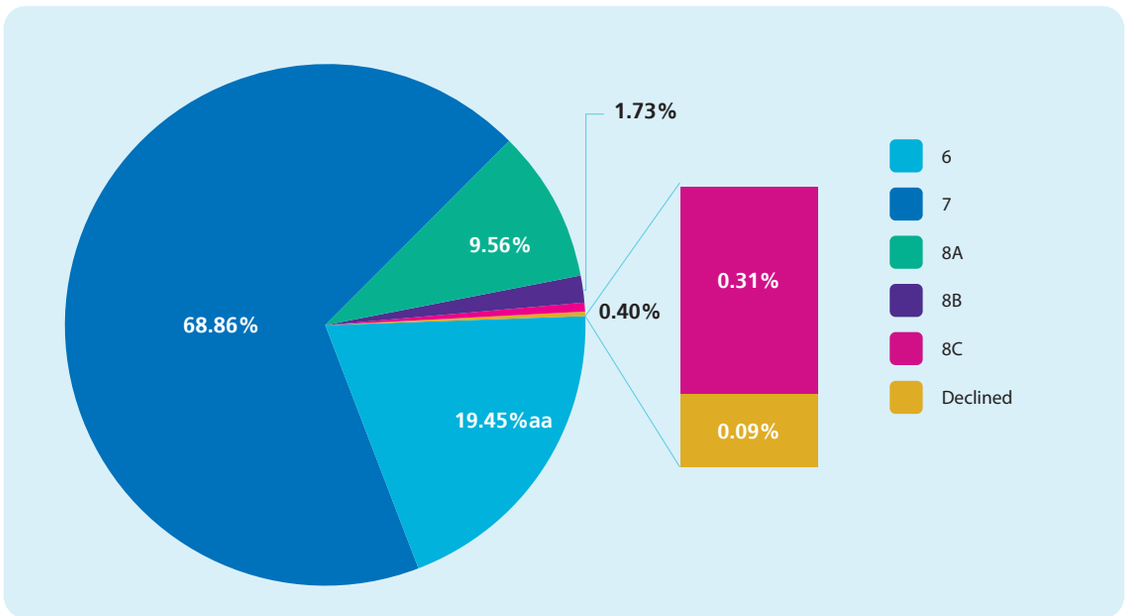
2.4 Agenda For Change Banding

Consistent with 2010 census Agenda for Change (AFC) banding data was collected. This table shows the distribution of the CNS workforce (this job title only) by AFC Banding and Area of Practice. Less than 1% of returns reported this as "not known" or "declined"

Table 4. CNS Workforce by AFC Banding

Sum of WTE	Banding									
Area of Practice	6	7	8A	8B	8C	8D	9	Declined	Not Known	Grand Total
AOS	6.64	44.01	7.59	0.00	0.00	0.00	0.00	0.00	0.00	58.23
Brain / CNS	7.59	47.0	6.1	0.00	0.00	0.00	0.00	0.00	0.00	60.69
Breast	84.57	313.85	25.34	1.4	0.00	0.00	0.00	0.00	0.00	425.16
Colorectal	53.98	179.46	34.74	5.53	0.00	0.00	0.00	0.00	0.00	273.72
Gynaecology	23.02	134.35	15.06	2.0	0.00	0.00	0.00	0.00	0.00	174.43
Haematology	20.54	192.54	16.09	1.0	0.00	0.00	0.00	0.00	0.00	230.17
Head&Neck	13.91	111.06	8.8	0.00	0.00	0.00	0.00	0.00	0.00	133.77
Lung	39.81	199.49	11.86	0.00	1.00	0.00	0.00	0.00	0.00	252.17
Malignant Derm	16.36	106.52	5.4	0.00	0.00	0.00	0.00	0.00	0.00	128.28
Sarcoma	6.0	22.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.72
Upper GI	33.33	166.91	12.3	3.00	0.00	0.00	0.00	0.00	0.00	215.54
Urology	39.25	210.88	30.45	0.00	0.00	0.00	0.00	0.00	0.00	280.57
Grand Total	345.01	1728.80	173.72	12.93	1.00	0.00	0.00	0.00	0.00	2261.46

Fig 3. % Workforce by AFC Banding



As expected, the overwhelming majority of cancer nurse specialist posts are at AFC band 7. Approximately 20% of the workforce is banded below this at AFC 6, and only around 11% of the total banded above this at AFC 8a-8c.

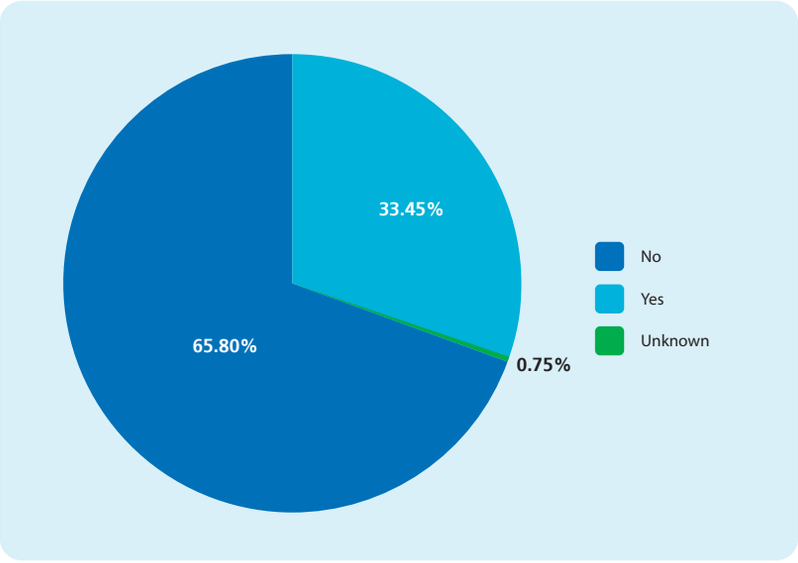
2.5 MacMillan Cancer Support workforce

Consistent with the previous three census collections, data on the workforce funded by MacMillan Cancer Support was collected.

Table 5 shows the total number of posts that are MacMillan funded from the 2805.43 reported posts

MacMillan Cancer Support Post	Total WTE
MacMillan Clinical Nurse Specialists	842.57
Other MacMillan Cancer Specialists	95.72
Total MacMillan Post	938.29

Fig 4. % Workforce MacMillan Cancer Support posts



MacMillan Cancer Support continues to provide support for approximately one third of the cancer specialist nurse (all job titles) population in England.

Fig 5. WTE MacMillan Cancer Support posts by area of practice

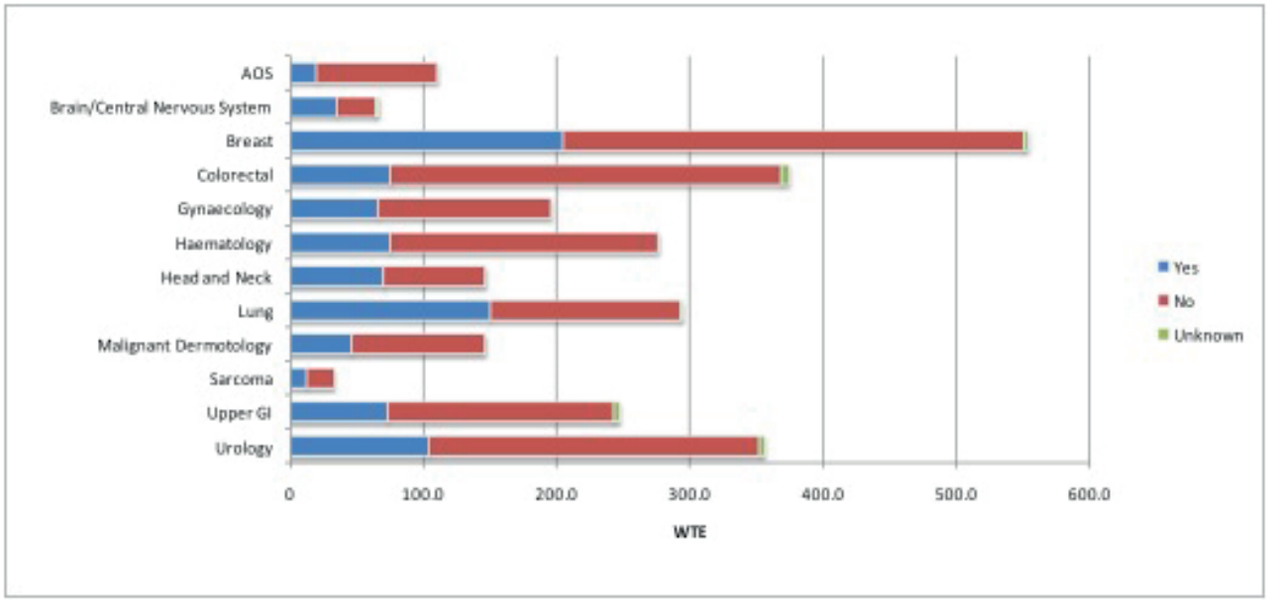


Figure 5 shows the largest number (177 WTE) of CNS posts with MacMillan support are in breast, Lung and urology (inc. prostate) care also account for a fair proportion of the MacMillan supported posts (137 WTE and 87 WTE respectively).The lowest proportion of MacMillan cancer support posts are in sarcoma and urology (exc. prostate)

3 Proportion

3.1 Ratio of Cancer Specialist Nurses by incidence of cancer

Using the latest cancer incidence data for 2009, it has been possible to map the ratio of newly diagnosed cases in each cancer network to the provision of cancer specialist nurses for each area of practice. This highlights the variations between provisions of specialist nurse posts for different tumour types.

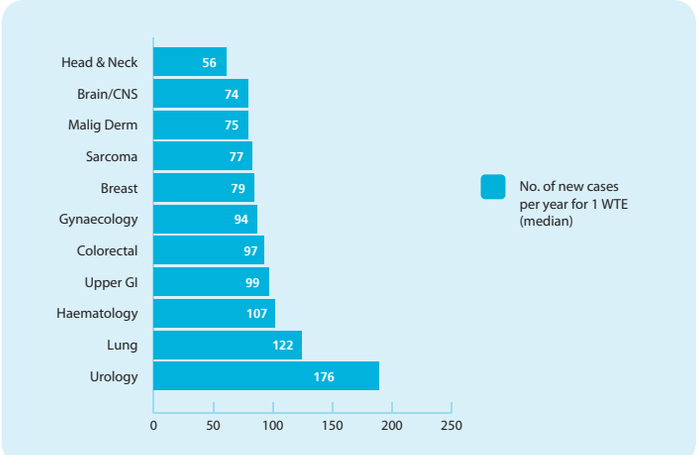
There are many caveats to this approach however, most notably the fact that new cases of cancer are recorded by the resident address of the patient, and not by the cancer unit in which they are diagnosed or treated. The ratio of cancer specialist nurses to new cases of cancer per year within a network does not, therefore, reflect the caseload of the specialist nurse, nor does it demonstrate the variations in the level of support needed depending on the type and stage of cancer.

Table 6 shows the Range of Network ratios of new cases of cancer per year to 1 Working Time Equivalent (WTE) cancer specialist nurse.

Area of Practice	Number of cancer networks with no reported cancer specialist nurse	Lowest network ratio of new cases of cancer to 1WTE	Median network ratio of new cases of cancer to 1WTE	Highest network ratio of new cases of cancer to 1WTE
Brain/CNS	1 cancer network have no CNS	26	74	165
Breast		54	79	120
Colorectal		46	97	168
Gynaecology		46	94	193
Haematology		36	107	163
Head and Neck		25	56	92
Lung		75	122	212
Malignant Derm		24	75	252
Sarcoma*	12 cancer network have no CNS	12	77	180
Upper GI		42	99	302
Urology		79	176	236

Cancer incidence data are based on the number of newly diagnosed cases in 2009, for all ages. Source: Cancer Commissioning Toolkit for all cancer types, except for Colorectal and Gynaecology where the source is UKCIS

Fig 7 Ratio of new cases per year for 1 WTE Cancer nurse specialist



As this figure demonstrates the median ratio of new cases of cancer to 1WTE cancer specialist nurse ranges from 56 in Head and Neck cancer to 176 in Urological cancer.

4 Summary and Recommendations

4.1 How is the picture changing?

Data collection methods and processes have evolved over the four censuses to date, and definitions of both job titles and areas of practice have been refined. Direct comparison of the numbers from the previous censuses may therefore not be meaningful.

The Clinical Nurse Specialist subset has remained the largest across all 4 censuses, and this may be used as a tracer group to track workforce trends. The 2008 data was only 89% complete and as such contains lower numbers overall. The 2011 data is 96% complete with one Networks full return outstanding.

There appears to have been an actual increase in Clinical Nurse Specialist posts from 2007-2011 for some areas of practice (brain/central nervous system, lung, haematology and upper GI), however, the cancer specialist nurse workforce in general is not expanding sufficiently to keep pace with the increase in cancer prevalence of an estimated 3.2% per year.

4.2 CNS workforce trends

Table 8. CNS Workforce 2007-2011.

Area of Practice	Number of Clinical Nurse Specialist Posts (WTE)			
	2007[1] 100% response	2008[2] 89% response	2010 100% response	2011 96% response
Breast	434	368	400.4	429.16
Colorectal	293	247.9	273	273.72
Urology	250	221.5	253.9	280.57
Lung	225	218.2	245.9	254.17
Haematology	204	212.4	239.6	231.17
Upper GI	176	171.4	205.8	216.54
Gynaecology	149	141.5	155	175.43
Head / Neck	100	94.2	109.2	134.77
Skin*	62	NR	NR	NR
Malignant dermatology*	NR	63.4	119.7	129.28
Brain/Central Nervous System	33	37.1	52.9	60.69
Sarcoma	NR	18.5	24.2	28.72
Oncology	1	5.7	NR	NR
Chemotherapy	NR	NR	84.5	NR
Acute Oncology Service	NR	NR	NR	58.23
Total	1927	1800	2164.2	2261.46

Apparent real increase in posts from 2007-2011

*Skin was changed to malignant dermatology in 2008 to capture a more specific dataset

4.3 Future planning and recommendations

The NHS is required to release up to £20 billion of efficiency savings by 2013/14 which will be reinvested to support improvements in quality and outcomes. Those responsible for commissioning services will undoubtedly be expecting value for money as well as high quality services with patients.

Workforce planning will be crucial in achieving improvements, and the cancer specialist nurse census is a valuable tool to inform commissioning networks in the drive for world class cancer services in England.

There are still marked inequities in provision of specialist nurse support for those diagnosed with different cancer types, as well as some degree of variance across geographical locations. Evidence from the 2010 National Cancer Patients Experience Survey Report pointed towards provision of specialist nurse support as an important indicator of the quality of cancer services.

Commissioners may, therefore, be interested in examining more closely the ratio of specialist nurses to new cases of cancer within their localities along with data from trust level patient experience survey results and other sources such as the National Cancer Peer Review programme.

The results from the CNS Census are now reported by Network and Tumour in the Cancer Commissioning Toolkit. It is the first point of reference for Cancer Commissioners to benchmark the services they commission. It includes a wide range of high level indicators and profiles across the patient journey. www.ncin.org.uk

Future Work

• Mapping interventions that specialist nurses offer across different cancer patient pathways to determine best practice

• The 2011 DH Cancer Patient Experience Survey (CPES) results are due to be published in July 2012 and NCAT will conduct analysis using the 2011 dataset for CPES and CNS results to assess the impact of Cancer Specialist Nurses on Patient Experience.

• Examine the relationship between patient reported experience of care and ratio of specialist nurse provision to determine the optimum caseload to achieve quality care

• Explore the use of markers other than incidence to help estimate the true caseload of specialist nurses, such as prevalence, mortality rates and volume of patients seen by an MDT.

• The NCAT Quality in Nursing group is in the process of developing a project to develop a method to calculate CNS caseload.

• Monitor the impact of the MacMillan Cancer Support pilot focussed on 121 support and the interface of Macmillan's proposed workforce roles on CNS provision.

The National Cancer Action Team will continue to work with its partners in the National Cancer Intelligence Network, National Cancer Peer Review team, the Cancer Networks, Department of Health, charitable organisations and the Centre for Workforce Intelligence to provide robust data regarding this important element of the specialist cancer workforce and to address inequities wherever they are identified.

5 Acknowledgements

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http://www.ncat.nhs.uk/our-work/ensuring-better-treatment/quality-in-nursing

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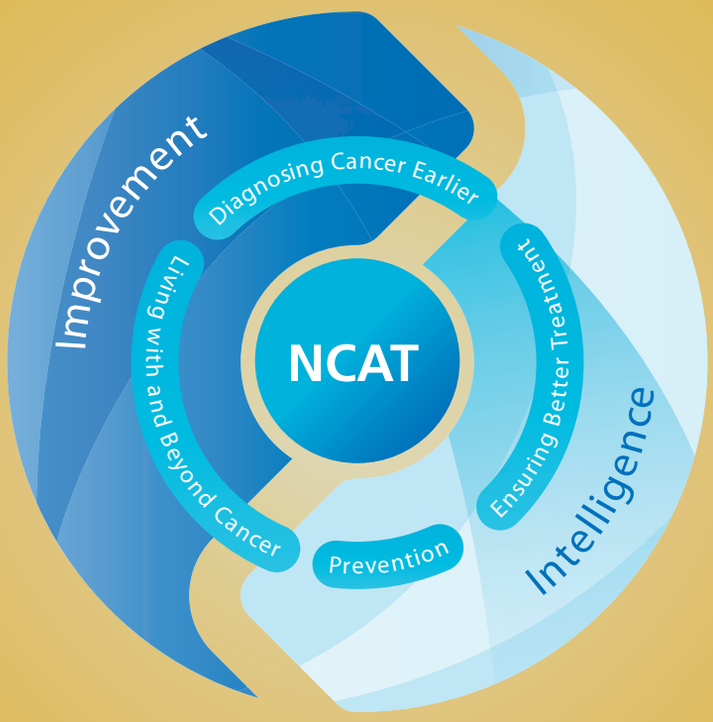

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