

Data Quality Report 2012 Urological Cancers SSCRG



Introduction

This report has been produced as collaboration between the South West Public Health Observatory (SWPHO) and the Urological Site Specific Cancer Reference Group (SSCRG) of the National Cancer Intelligence Network (NCIN).

This report assesses the completeness of staging information held in the National Cancer Data Repository (NCDR) for urological tumours (ICD10 C60-C62, C64-C67). Quality of data recorded associated with histology, ethnicity and treatment were also assessed for bladder cancer records.

Method

Records of urological tumours (ICD10 C60-C62, C64-C67) in each Cancer Registry in England for the three most recent diagnosis years available, 2007-2009, were analysed. Pathological, clinical and integrated* staging fields (T, N and M separately and overall TNM stage grouping) were extracted.

* Integrated stage is a hybrid of pathological and clinical T, N and M values. Generally, the T and N values will come from the pathology and the M value will be attributed clinically.

Additional fields were extracted for bladder cancer records relating to histology, ethnicity and treatment.

The percentage valid in each field represents the number of tumours with a valid entry as a proportion of all tumours of that type in a given year at a given registry. The entries which were classed as valid are detailed in table 1. It is important to note that for treatment data, especially surgery, a number of different procedures can be counted in that group and give rise to a 'Yes' entry. For example, in bladder cancer, a trans-urethral resection of a bladder tumour (TURBT) will be counted as a surgical procedure. Under the ethnicity coding system it is possible, and correct, to put the code 'X' or 'Z' which mean 'unknown'. Therefore the completeness of ethnicity is shown both with and without X and Z codes. The remaining codes A to S refer to specific ethnic groups.

| | | | enile) (Prostate) (Testicular) (Kidney except renal pelvis) (Renal Pelvis) (Ureter) (Bladder) b,b,2,3,4) 2-4 (2a,2b,3a,3b,4) 1-4 1-4 (1a,1b,2a,2b,3a,3b,3c,4) 1-4 1-4 (1a,2a,2b,3a,3b,4a,4b) 0-1 0-3 0-3 0-3 0-3 0-3 0-3 0-1 0-1 0-1 0-1 0-1 0-1 0-1 1-1V 1-1V 1-1V 1-1V 1-1V 1-1V | | | | | | | | | | | | |
|-----------------|----------|-------------------------------|--|-----------------|-------------------------------------|------|------|---------------------------------|--|--|--|--|--|--|--|
| _ | Field | C60 (Penile) | | | | | | | | | | | | | |
| | т | 1-4 (1a, 1b, 2, 3, 4) | 2-4 (2a, 2b, 3a, 3b, 4) | 1-4 | 1-4 (1a, 1b, 2a, 2b, 3a, 3b, 3c, 4) | 1-4 | 1-4 | 1-4 (1, 2a, 2b, 3a, 3b, 4a, 4b) | | | | | | | |
| Pathological | N | 0-3 | 0-1 | 0-3 | 0-2 | 0-3 | 0-3 | 0-3 | | | | | | | |
| Stage | м | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 | | | | | | | |
| | TNM | I-IV | I-IV | I-IV | I-IV | I-IV | I-IV | I-IV | | | | | | | |
| | т | 1-4 (0, 1a, 1b, 2, 3, 4) | 1-4 (1a, 1b, 1c, 2a, 2b, 3a, 3b, 4) | 1-4 | 1-4 (1a, 1b, 2a, 2b, 3a, 3b, 3c, 4) | 1-4 | 1-4 | 1-4 (1, 2a, 2b, 3a, 3b, 4a, 4b) | | | | | | | |
| Clinical Stage | N | 0-3 | 0-1 | 0-3 | 0-2 | 0-3 | 0-3 | 0-3 | | | | | | | |
| Clinical Stage | м | 0-1 | 0-1 | 0-1 (0, 1a, 1b) | 0-1 | 0-1 | 0-1 | 0-1 | | | | | | | |
| | TNM | I-IV | I-IV | I-IV | I-IV | I-IV | I-IV | I-IV | | | | | | | |
| 1 Vinte In my | All | Valid five character co | des, behaviour code /3 | | | | | | | | | | | | |
| Histology | Specific | As above excluding '80 | 00' (neoplasm), '8010' (carcinoma) | | | | | | | | | | | | |
| E 1. 1 1 | All | A, B, C, D, E, F, G, H, J, K, | L, M, N, P, R, S, X, Z | | | | | | | | | | | | |
| Ethnicity | Specific | A, B, C, D, E, F, G, H, J, K, | L, M, N, P, R, S | | | | | | | | | | | | |
| | Surgery | Y, N | | | | | | | | | | | | | |
| | Chemo | Y, N | | | | | | | | | | | | | |
| Treatment Flag | Radio | Y, N | | | | | | | | | | | | | |
| | Hormone | Y, N | | | | | | | | | | | | | |

Table 1: Valid entries for NCDR 2007-2009 fields analysed

Source: South West Public Health Observatory

Results

- Staging data using the TNM system is generally very poor. Oxford Cancer Intelligence Unit, South West Cancer Intelligence Service, Thames Cancer Registry and Trent Cancer Registry (Trent), throughout the period studied, had no valid integrated TNM stage.
- The Eastern Cancer Registration & Information Centre (ECRIC) have achieved in excess of 70% overall stages for all but penile and testicular cancer.
- The West Midlands Cancer Intelligence Unit (WMCIU) tend to be the only ones who are consistent across all 3 stages, however still achieve a considerably low percent overall with each cancer.
- ECRIC recording of specific ethnic group ('unknowns' excluded) appears to be worse than all other registries. However the recording of all ethnic groups for bladder cancer is well recorded, with 100% completeness across all registries.
- Histology for bladder cancer is well recorded with the lowest value being 75%.
- The hormone field is fully complete except for WMCIU and Trent, however the 'yes' recording of hormone therapy is very low, which can be expected as hormone therapy is not generally used for bladder cancer treatment.

Table 2: Valid staging information for penile cancer (C60) in English Registry Areas, 2007-2009

| | | | Valid Pathological Stage | | | | | Valid Clin | ical Stage | | | Integrate | d Stage | |
|---|------|-------|--------------------------|------|-----|-----|-----|------------|------------|-----|------|-----------|---------|------|
| Cancer Registry | Year | Cases | Т | N | М | TNM | Т | N | М | TNM | т | N | м | TNM |
| | 2007 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80.5 | 29.3 | 2.4 | 73.2 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77.4 | 26.4 | 1.9 | 67.9 |
| | 2009 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 86.1 | 0 | 0 | 86.1 |
| | 2007 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SERVICE | 2009 | 79 | 3.8 | 0 | 0 | 3.8 | 0 | 0 | 0 | 0 | 1.3 | 1.3 | 1.3 | 1.3 |
| | 2007 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTHERN & YORKSHIRE CANCER REGISTRY & INFORMATION SERVICE | 2008 | 51 | 2.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 57 | 3.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 23 | 0 | 4.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2008 | 19 | 10.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 17 | 35.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 56 | 53.6 | 7.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SOUTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 64 | 32.8 | 0 | 1.6 | 1.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SERVICE | 2009 | 70 | 32.9 | 0 | 1.4 | 1.4 | 5.7 | 0 | 4.3 | 4.3 | 0 | 0 | 0 | 0 |
| | 2007 | 74 | 64.9 | 4.1 | 0 | 0 | 8.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 59 | 71.2 | 3.4 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 59 | 84.8 | 0 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 50 | 68.0 | 10.0 | 8.0 | 2.0 | 4.0 | 2.0 | 4.0 | 0 | 68.0 | 10.0 | 12.0 | 6.0 |
| WEST MIDLANDS CANCER INTELLIGENCE UNIT | 2008 | 47 | 66.0 | 17.0 | 0 | 0 | 0 | 0 | 0 | 0 | 66.0 | 17.0 | 0 | 0 |
| | 2009 | 52 | 65.4 | 5.8 | 5.8 | 3.9 | 3.9 | 1.9 | 3.9 | 0 | 65.4 | 7.7 | 7.7 | 3.9 |

Table 3: Valid staging information for prostate cancer (C61) in English Registry Areas, 2007-2009

| | | | | Valid Pathological Stage | | | | Valid Clin | ical Stage | | | Integrate | ed Stage | |
|---|------|-------|------|--------------------------|-----|-----|------|------------|------------|------|------|-----------|----------|------|
| Cancer Registry | Year | Cases | т | N | м | TNM | т | N | М | TNM | т | N | М | TNM |
| | 2007 | 3775 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85.5 | 9.4 | 27.7 | 95.7 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 4030 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 87.7 | 11.0 | 30.9 | 95.1 |
| IN ONWATION CLIVILE (LENIC) | 2009 | 4321 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88.1 | 0 | 0 | 94.6 |
| NORTH WEST CANCER INTELLIGENCE | 2007 | 4014 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.2 |
| SERVICE | 2008 | 3861 | 0.0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0.2 | 0.2 | 0.2 | 0.2 |
| SERVICE | 2009 | 4364 | 0.2 | 0.1 | 0.3 | 0.3 | 0 | 0 | 0 | 0 | 3.0 | 2.9 | 3.1 | 3.1 |
| NORTHERN & YORKSHIRE CANCER | 2007 | 4189 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 |
| REGISTRY & INFORMATION SERVICE | 2008 | 4212 | 0.1 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| REGISTRY & INFORMATION SERVICE | 2009 | 4468 | 0.7 | 0.4 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.8 |
| | 2007 | 1871 | 0.2 | 1.2 | 2.6 | 2.4 | 0.1 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2008 | 1814 | 1.2 | 0.9 | 0.7 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 1959 | 5.8 | 2.9 | 0.1 | 0.1 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 5323 | 6.5 | 1.5 | 1.0 | 1.0 | 4.0 | 0.3 | 2.8 | 2.6 | 0 | 0 | 0 | 0 |
| SOUTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 5107 | 6.2 | 1.9 | 1.0 | 1.0 | 2.5 | 0.2 | 3.7 | 3.5 | 0 | 0 | 0 | 0 |
| SERVICE | 2009 | 5380 | 13.5 | 2.2 | 1.5 | 1.1 | 29.8 | 5.0 | 10.7 | 7.0 | 0 | 0 | 0 | 0 |
| | 2007 | 6390 | 10.6 | 2.8 | 0.5 | 0 | 24.1 | 6.9 | 4.6 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 6406 | 11.7 | 2.7 | 0.6 | 0 | 25.1 | 7.1 | 4.4 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 7168 | 12.9 | 3.1 | 0.5 | 0 | 28.7 | 9.4 | 5.9 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 3083 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 3051 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 3383 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 3418 | 15.4 | 9.5 | 0.9 | 1.6 | 27.9 | 10.9 | 17.9 | 16.5 | 40.0 | 19.8 | 18.4 | 17.9 |
| WEST MIDLANDS CANCER INTELLIGENCE UNIT | 2008 | 3585 | 18.4 | 10.0 | 1.6 | 2.3 | 26.6 | 11.0 | 18.1 | 15.5 | 41.6 | 20.4 | 19.0 | 17.1 |
| | 2009 | 3750 | 18.0 | 10.1 | 1.2 | 2.1 | 28.7 | 12.5 | 18.1 | 16.3 | 43.0 | 21.7 | 18.9 | 17.9 |

Table 4: Valid staging information for testicular cancer (C62) in English Registry Areas, 2007-2009

| | | | | Valid Pathol | ogical Stage | | | Valid Clin | ical Stage | | | Integrate | d Stage | |
|---|------|-------|------|--------------|--------------|------|-----|------------|------------|------|------|-----------|---------|------|
| Cancer Registry | Year | Cases | т | N | М | TNM | т | N | М | TNM | т | N | М | TNM |
| | 2007 | 183 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 57.4 | 9.8 | 8.2 | 93.4 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 56.9 | 13.8 | 8.4 | 85.0 |
| | 2009 | 204 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67.7 | 0 | 0 | 68.1 |
| | 2007 | 196 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.5 | 0 | 0 | 1.0 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 229 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 253 | 0.8 | 0 | 0.4 | 1.2 | 0 | 0 | 0 | 0 | 0.4 | 0.4 | 0.4 | 0.4 |
| | 2007 | 219 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16.0 |
| NORTHERN & YORKSHIRE CANCER REGISTRY & INFORMATION SERVICE | 2008 | 250 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15.2 |
| REGISTRY & INFORMATION SERVICE | 2009 | 255 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16.5 |
| | 2007 | 119 | 0 | 1.7 | 1.7 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2008 | 107 | 8.4 | 0.9 | 0.9 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2009 | 105 | 65.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 270 | 44.4 | 1.1 | 2.2 | 3.0 | 0.4 | 0 | 0.7 | 0.7 | 0 | 0 | 0 | 0 |
| | 2008 | 322 | 51.9 | 1.9 | 3.4 | 3.4 | 0 | 0 | 1.2 | 1.2 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 247 | 55.5 | 2.0 | 6.5 | 5.7 | 8.1 | 5.7 | 8.9 | 4.1 | 0 | 0 | 0 | 0 |
| | 2007 | 384 | 45.3 | 2.3 | 2.1 | 0 | 5.7 | 1.0 | 0.5 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 407 | 60.9 | 1.7 | 0.5 | 0 | 4.7 | 2.5 | 1.7 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 404 | 67.1 | 3.5 | 1.0 | 0 | 3.2 | 0.5 | 0.3 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 179 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 218 | 91.3 | 3.2 | 4.6 | 23.4 | 1.8 | 10.6 | 31.7 | 34.9 | 91.3 | 13.3 | 33.5 | 61.0 |
| | 2008 | 181 | 92.8 | 7.2 | 8.8 | 30.4 | 7.2 | 19.3 | 30.9 | 33.7 | 92.8 | 26.0 | 37.6 | 70.7 |
| INTELLIGENCE UNIT | 2009 | 209 | 92.8 | 6.2 | 8.6 | 38.8 | 8.6 | 13.4 | 27.8 | 33.0 | 92.8 | 19.1 | 32.5 | 73.2 |

Table 5: Valid staging information for kidney cancer (C64) in English Registry Areas, 2007-2009

| | | | | Valid Pathological Stage | | | | Valid Clin | ical Stage | | | Integrate | d Stage | |
|---|------|-------|------|--------------------------|------|------|-----|------------|------------|------|------|-----------|---------|------|
| Cancer Registry | Year | Cases | т | N | М | TNM | т | N | М | TNM | т | N | м | TNM |
| | 2007 | 625 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75.5 | 17.0 | 33.6 | 85.0 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 727 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80.9 | 21.9 | 34.4 | 90.5 |
| | 2009 | 719 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82.5 | 0 | 0 | 90.1 |
| | 2007 | 723 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 832 | 0.2 | 0.2 | 0.1 | 0.2 | 0 | 0 | 0 | 0 | 0.4 | 0.4 | 0.4 | 0.4 |
| | 2009 | 897 | 1.3 | 0.6 | 1.0 | 1.7 | 0 | 0 | 0 | 0 | 1.8 | 1.7 | 2.6 | 2.6 |
| | 2007 | 979 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.6 |
| NORTHERN & YORKSHIRE CANCER REGISTRY & INFORMATION SERVICE | 2008 | 1012 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 |
| REGISTRY & INFORMATION SERVICE | 2009 | 972 | 1.9 | 0.2 | 0.2 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 1.5 |
| | 2007 | 279 | 0.7 | 9.0 | 15.4 | 15.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2008 | 309 | 3.2 | 2.6 | 4.2 | 4.2 | 2.3 | 0.7 | 1.0 | 0.7 | 0 | 0 | 0 | 0 |
| SNI1 | 2009 | 337 | 47.2 | 8.3 | 3.0 | 3.0 | 0 | 0 | 0.3 | 0.3 | 0 | 0 | 0 | 0 |
| | 2007 | 1058 | 42.3 | 9.9 | 7.1 | 7.3 | 4.3 | 2.9 | 6.0 | 4.4 | 0 | 0 | 0 | 0 |
| SOUTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 1058 | 48.9 | 9.5 | 6.9 | 6.7 | 2.2 | 2.2 | 6.9 | 5.6 | 0 | 0 | 0 | 0 |
| SERVICE | 2009 | 1027 | 47.2 | 9.8 | 9.6 | 9.0 | 6.1 | 5.2 | 21.9 | 18.2 | 0 | 0 | 0 | 0 |
| | 2007 | 1160 | 39.9 | 6.6 | 2.3 | 0 | 5.7 | 2.8 | 1.9 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 1184 | 48.9 | 9.4 | 1.2 | 0 | 7.4 | 5.6 | 3.6 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 1240 | 46.5 | 8.4 | 1.6 | 0 | 8.9 | 6.5 | 4.9 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 699 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 748 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 698 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| WEST MIDLANDS CANCER | 2007 | 641 | 61.8 | 16.7 | 10.0 | 11.7 | 6.6 | 2.8 | 20.1 | 18.9 | 65.2 | 19.0 | 24.5 | 25.0 |
| INTELLIGENCE UNIT | 2008 | 619 | 65.1 | 15.0 | 10.0 | 10.5 | 8.7 | 5.3 | 23.8 | 21.2 | 69.0 | 19.2 | 28.0 | 26.5 |
| | 2009 | 673 | 61.2 | 13.2 | 9.8 | 11.0 | 9.8 | 6.4 | 24.8 | 23.0 | 66.4 | 19.2 | 29.9 | 29.9 |

Table 6: Valid staging information for cancer of the renal pelvis (C65) in English Registry Areas, 2007-2009

| | | | | Valid Pathol | ogical Stage | | | Valid Clini | ical Stage | | | Integrate | d Stage | |
|---|------|-------|------|--------------|--------------|-----|-----|-------------|------------|-----|------|-----------|---------|------|
| Cancer Registry | Year | Cases | т | N | М | TNM | т | N | м | TNM | т | N | м | TNM |
| | 2007 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67.8 | 15.3 | 22.0 | 76.3 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82.9 | 19.5 | 15.9 | 86.6 |
| INFORMATION CENTRE (ECRIC) | 2009 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 74.3 | 0 | 0 | 85.1 |
| | 2007 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.9 | 1.9 | 1.9 | 1.9 |
| | 2007 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTHERN & YORKSHIRE CANCER REGISTRY & INFORMATION SERVICE | 2008 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| REGISTRY & INFORMATION SERVICE | 2009 | 117 | 0.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.6 |
| | 2007 | 32 | 0 | 15.6 | 3.1 | 3.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2008 | 30 | 10.0 | 10.0 | 3.3 | 3.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UNIT | 2009 | 38 | 63.2 | 13.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 39 | 82.1 | 20.5 | 2.6 | 2.6 | 0 | 2.6 | 5.1 | 5.1 | 0 | 0 | 0 | 0 |
| | 2008 | 61 | 60.7 | 14.8 | 3.3 | 3.3 | 1.6 | 0 | 3.3 | 3.3 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 72 | 75.0 | 23.6 | 6.9 | 5.6 | 4.2 | 5.6 | 11.1 | 9.7 | 0 | 0 | 0 | 0 |
| | 2007 | 79 | 60.8 | 13.9 | 0 | 0 | 2.5 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 62 | 71.0 | 16.1 | 0 | 0 | 1.6 | 1.6 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 80 | 61.3 | 18.8 | 3.8 | 0 | 8.8 | 7.5 | 3.8 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 50 | 70.0 | 16.0 | 2.0 | 0 | 2.0 | 2.0 | 2.0 | 0 | 72.0 | 18.0 | 4.0 | 0 |
| WEST MIDLANDS CANCER INTELLIGENCE UNIT | 2008 | 60 | 78.3 | 20.0 | 5.0 | 0 | 0 | 0 | 0 | 0 | 78.3 | 20.0 | 5.0 | 0 |
| | 2009 | 62 | 77.4 | 33.9 | 4.8 | 0 | 9.7 | 4.8 | 4.8 | 0 | 82.3 | 37.1 | 9.7 | 0 |

Table 7: Valid staging information for cancer of the ureter (C66) in English Registry Areas, 2007-2009

| | | | | Valid Pathol | ogical Stage | | | Valid Clin | ical Stage | | | Integrate | d Stage | |
|---|------|-------|------|--------------|--------------|-----|-----|------------|------------|------|------|-----------|---------|------|
| Cancer Registry | Year | Cases | т | N | М | TNM | Т | N | м | TNM | т | N | М | TNM |
| | 2007 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82.9 | 17.1 | 17.1 | 87.8 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82.5 | 20.0 | 10.0 | 87.5 |
| | 2009 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77.4 | 0 | 0 | 92.5 |
| | 2007 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.1 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 49 | 2.0 | 0 | 0 | 2.0 | 0 | 0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| | 2007 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTHERN & YORKSHIRE CANCER REGISTRY & INFORMATION SERVICE | 2008 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| REGISTRY & INFORMATION SERVICE | 2009 | 76 | 4.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.3 |
| | 2007 | 13 | 0 | 7.7 | 7.7 | 7.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2008 | 22 | 4.6 | 13.6 | 4.6 | 4.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ONT | 2009 | 23 | 52.2 | 13.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 61 | 60.7 | 18.0 | 0 | 0 | 3.3 | 3.3 | 8.2 | 8.2 | 0 | 0 | 0 | 0 |
| SOUTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 71 | 60.6 | 12.7 | 1.4 | 1.4 | 0 | 2.8 | 1.4 | 1.4 | 0 | 0 | 0 | 0 |
| SERVICE | 2009 | 74 | 62.2 | 13.5 | 1.4 | 1.4 | 5.4 | 5.4 | 18.9 | 13.5 | 0 | 0 | 0 | 0 |
| | 2007 | 61 | 60.7 | 8.2 | 1.6 | 0 | 3.3 | 1.6 | 1.6 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 53 | 64.2 | 3.8 | 0 | 0 | 5.7 | 1.9 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 66 | 60.6 | 10.6 | 3.0 | 0 | 3.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 55 | 65.5 | 10.9 | 0 | 1.8 | 1.8 | 0 | 0 | 0 | 67.3 | 10.9 | 0 | 1.8 |
| WEST MIDLANDS CANCER INTELLIGENCE UNIT | 2008 | 42 | 81.0 | 7.1 | 0 | 0 | 0 | 0 | 0 | 0 | 81.0 | 7.1 | 0 | 0 |
| | 2009 | 41 | 70.7 | 17.1 | 4.9 | 0 | 9.8 | 7.3 | 4.9 | 0 | 75.6 | 22.0 | 9.8 | 0 |

Table 8: Valid staging information for bladder cancer (C67) in English Registry Areas, 2007-2009

| | | [| Valid Pathological Stage | | | | | Valid Clini | ical Stage | | | Integrate | ed Stage | |
|---|------|-------|--------------------------|-----|-----|-----|------|-------------|------------|------|------|-----------|----------|------|
| Cancer Registry | Year | Cases | т | N | М | TNM | т | N | М | TNM | т | Ν | м | TNM |
| | 2007 | 958 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84.2 | 14.2 | 11.3 | 90.1 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 999 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 85.2 | 13.0 | 11.8 | 90.1 |
| | 2009 | 1009 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 88.8 | 0 | 0 | 92.3 |
| | 2007 | 1285 | 0.5 | 0 | 0 | 0.5 | 0.1 | 0.1 | 0.1 | 0.2 | 1.3 | 0.5 | 0.4 | 2.8 |
| NORTH WEST CANCER INTELLIGENCE SERVICE | 2008 | 1447 | 0.4 | 0.1 | 0.1 | 0.4 | 0 | 0 | 0 | 0 | 0.4 | 0.4 | 0.4 | 0.4 |
| INTELLIGENCE SERVICE | 2009 | 1374 | 2.0 | 0.2 | 0.2 | 2.0 | 0 | 0 | 0 | 0 | 1.9 | 1.8 | 1.8 | 1.9 |
| NORTHERN & YORKSHIRE CANCER | 2007 | 1304 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |
| REGISTRY & INFORMATION | 2008 | 1254 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 |
| SERVICE | 2009 | 1190 | 2.6 | 1.2 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |
| | 2007 | 408 | 1.7 | 4.7 | 3.9 | 2.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2008 | 449 | 5.6 | 5.8 | 1.6 | 0.7 | 0.2 | 0.2 | 0 | 0 | 0 | 0 | 0 | 0 |
| UNIT | 2009 | 502 | 49.6 | 6.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 1283 | 73.4 | 7.5 | 1.3 | 1.4 | 1.6 | 0.6 | 1.3 | 1.0 | 0 | 0 | 0 | 0 |
| SOUTH WEST CANCER | 2008 | 1296 | 75.5 | 6.4 | 1.4 | 1.2 | 0.9 | 0.4 | 1.3 | 1.1 | 0 | 0 | 0 | 0 |
| INTELLIGENCE SERVICE | 2009 | 1266 | 77.4 | 6.5 | 2.2 | 1.3 | 10.7 | 3.9 | 10.8 | 7.9 | 0 | 0 | 0 | 0 |
| | 2007 | 1809 | 61.9 | 5.9 | 1.8 | 0 | 8.3 | 3.4 | 2.0 | 0 | 0 | 0 | 0 | 0 |
| THAMES CANCER REGISTRY | 2008 | 1731 | 69.2 | 5.5 | 0.9 | 0 | 8.0 | 3.2 | 1.7 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 1659 | 68.1 | 7.4 | 1.4 | 0 | 8.1 | 3.0 | 2.0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 969 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRENT CANCER REGISTRY | 2008 | 941 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2009 | 909 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2007 | 852 | 86.4 | 9.6 | 2.8 | 3.1 | 14.9 | 7.4 | 11.9 | 8.3 | 87.8 | 16.1 | 13.5 | 12.0 |
| WEST MIDLANDS CANCER | 2008 | 790 | 87.3 | 9.0 | 4.3 | 3.9 | 16.5 | 7.2 | 9.8 | 7.1 | 88.4 | 14.9 | 12.5 | 11.3 |
| INTELLIGENCE UNIT | 2009 | 866 | 86.6 | 5.2 | 1.9 | 1.7 | 13.7 | 7.5 | 12.5 | 10.4 | 87.8 | 12.6 | 13.9 | 12.5 |

Table 9: Valid histological, ethnicity and treatment information for bladder cancer (C67) in English Registry Areas, 2007-2009

| | | | Valid Hi | istology | Valid Ethnicity | | Surg | ery | Chemotherapy | | Radiotherapy | | Hormone Therapy | |
|---|------|-------|----------|----------|-----------------|----------|------------|---------|--------------|---------|--------------|---------|-----------------|---------|
| Cancer Registry | Year | Cases | All | Specific | All | Specific | Vlaid Flag | Y' Flag | Valid Flag | Y' Flag | Valid Flag | Y' Flag | Valid Flag | Y' Flag |
| | 2007 | 958 | 100 | 92.7 | 100 | 59.2 | 100 | 85.3 | 100 | 24.7 | 100 | 17.0 | 100 | 0.3 |
| EASTERN CANCER REGISTRATION & INFORMATION CENTRE (ECRIC) | 2008 | 999 | 100 | 92.2 | 100 | 54.8 | 100 | 83.0 | 100 | 29.8 | 100 | 15.7 | 100 | 0.5 |
| introduction centre (eenic) | 2009 | 1009 | 100 | 94.2 | 100 | 75.1 | 100 | 88.7 | 100 | 30.5 | 100 | 14.6 | 100 | 0.7 |
| NORTH WEST CANCER INTELLIGENCE | 2007 | 1285 | 100 | 85.7 | 100 | 93.9 | 100 | 75.5 | 100 | 18.4 | 100 | 15.7 | 100 | 0.2 |
| SERVICE | 2008 | 1447 | 100 | 75.1 | 100 | 93.6 | 100 | 70.2 | 100 | 10.2 | 100 | 8.4 | 100 | 0.4 |
| SERVICE | 2009 | 1374 | 100 | 75.0 | 100 | 92.5 | 100 | 81.2 | 100 | 26.4 | 100 | 13.3 | 100 | 0.4 |
| NORTHERN & YORKSHIRE CANCER | 2007 | 1304 | 100 | 92.6 | 100 | 56.9 | 100 | 84.4 | 100 | 41.9 | 100 | 17.3 | 100 | 0.1 |
| REGISTRY & INFORMATION SERVICE | 2008 | 1254 | 99.1 | 92.1 | 100 | 64.0 | 100 | 86.6 | 100 | 44.3 | 100 | 19.0 | 100 | 0.2 |
| REGISTRY & INFORMATION SERVICE | 2009 | 1190 | 99.9 | 91.5 | 100 | 52.4 | 100 | 87.7 | 100 | 43.5 | 100 | 20.3 | 100 | 0.3 |
| | 2007 | 408 | 100 | 93.6 | 100 | 92.4 | 100 | 80.6 | 100 | 17.2 | 100 | 17.4 | 100 | 0 |
| OXFORD CANCER INTELLIGENCE UNIT | 2008 | 449 | 100 | 84.2 | 100 | 89.3 | 100 | 80.0 | 100 | 34.3 | 100 | 13.6 | 100 | 0.2 |
| | 2009 | 502 | 100 | 79.5 | 100 | 90.2 | 100 | 75.1 | 100 | 41.2 | 100 | 7.4 | 100 | 1.4 |
| SOUTH WEST CANCER INTELLIGENCE | 2007 | 1283 | 100 | 90.0 | 100 | 91.0 | 100 | 82.2 | 100 | 26.7 | 100 | 6.9 | 100 | 0.3 |
| SERVICE | 2008 | 1296 | 100 | 89.0 | 100 | 92.7 | 100 | 76.6 | 100 | 29.0 | 100 | 9.3 | 100 | 0.2 |
| SLIVICE | 2009 | 1266 | 100 | 90.1 | 100 | 91.6 | 100 | 80.7 | 100 | 32.0 | 100 | 16.6 | 100 | 0.5 |
| | 2007 | 1809 | 100 | 90.2 | 100 | 89.6 | 100 | 83.4 | 100 | 21.8 | 100 | 10.8 | 100 | 1.1 |
| THAMES CANCER REGISTRY | 2008 | 1731 | 100 | 88.7 | 100 | 90.1 | 100 | 78.9 | 100 | 21.0 | 100 | 9.9 | 100 | 0.4 |
| | 2009 | 1659 | 100 | 83.2 | 100 | 91.6 | 100 | 73.8 | 100 | 21.0 | 100 | 10.9 | 100 | 0.7 |
| | 2007 | 969 | 100 | 89.9 | 100 | 94.4 | 86.0 | 81.5 | 39.6 | 31.7 | 14.6 | 2.5 | 13.6 | 1.1 |
| TRENT CANCER REGISTRY | 2008 | 941 | 100 | 88.5 | 100 | 93.0 | 87.9 | 82.7 | 51.3 | 43.4 | 14.2 | 1.5 | 12.7 | 0 |
| | 2009 | 909 | 100 | 90.7 | 100 | 94.6 | 88.5 | 84.5 | 50.1 | 41.8 | 19.9 | 8.8 | 14.5 | 0 |
| WEST MIDLANDS CANCER | 2007 | 852 | 97.0 | 92.3 | 100 | 92.3 | 90.4 | 87.6 | 18.8 | 9.5 | 21.2 | 16.1 | 6.7 | 3.9 |
| INTELLIGENCE UNIT | 2008 | 790 | 98.4 | 92.0 | 100 | 92.2 | 91.7 | 88.0 | 36.1 | 30.6 | 21.5 | 16.5 | 6.6 | 2.9 |
| | 2009 | 866 | 99.1 | 93.0 | 100 | 92.6 | 91.8 | 89.3 | 37.9 | 33.4 | 21.1 | 16.6 | 6.6 | 4.0 |

The NCIN is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research.

Sitting within the National Cancer Research Institute (NCRI), the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.

Our aims and objectives cover five core areas to improve the quality and availability of cancer data from its collection to use:

- Promoting efficient and effective data collection throughout the cancer journey
- Providing a common national repository for cancer datasets
- Producing expert analyses, to monitor patterns of cancer care
- Exploiting information to drive improvements in cancer care and clinical outcomes
- Enabling use of cancer information to support audit and research programmes

Further information

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About the South West Public Health Observatory

The South West Public Health Observatory (SWPHO) is part of a network of regional public health observatories in the UK (funded by the Department of Health) and Ireland. These were established in 2000 as outlined in the Government White Paper *Saving lives: our healthier nation*. Key tasks include: monitoring health and disease trends; identifying gaps in health information; advising on methods for health and health impact assessment; drawing together information from different sources; and carrying out projects on particular health issues.

The SWPHO incorporates the National Drug Treatment Monitoring System South West (NDTMS-SW), and in April 2005 merged with the South West Cancer Intelligence Service (SWCIS). The SWPHO works in partnership with a wide range of agencies, networks and organisations regionally and nationally to provide 'a seamless public health intelligence service' for the South West.

For more information about the SWPHO and its partner organisations, please visit www.swpho.nhs.uk