Public Health
England

Protecting and improving the nation's health

National Cancer Intelligence Network
Exploring variations in Routes to Diagnosis for gynaecological cancers, 2006 to 2010

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

Corporate member of
Plain English Campaign
Committed to clearer
communication

339

The intelligence networks

Public Health England operates a number of intelligence networks, which work with partners to develop world-class population health intelligence to help improve local, national and international public health systems.

National Cancer Intelligence Network

The National Cancer Intelligence Network (NCIN) is a UK-wide initiative, working to drive improvements in cancer awareness, prevention, diagnosis and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research.

National Cardiovascular Intelligence Network

The National cardiovascular intelligence network (NCVIN) analyses information and data and turns it into meaningful timely health intelligence for commissioners, policy makers, clinicians and health professionals to improve services and outcomes.

National Child and Maternal Health Intelligence Network

The National Child and Maternal Health Intelligence Networks (NCMHIN) provides information and intelligence to improve decision-making for high quality, cost effective services. Their work supports policy makers, commissioners, managers, regulators, and other health stakeholders working on children's, young people's and maternal health.

National Mental Health Intelligence Network

The National Mental Health Intelligence Network (NMHIN) is a single shared network in partnership with key stakeholder organisations. The Network seeks to put information and intelligence into the hands of decision makers to improve mental health and wellbeing.

National End of Life Care Intelligence Network

The National End of Life Care Intelligence Network (NEoLCIN) aims to improve the collection and analysis of information related to the quality, volume and costs of care provided by the NHS, social services and the third sector to adults approaching the end of life. This intelligence will help drive improvements in the quality and productivity of services.

Contents

List of figures

Executive summary

For the purposes of this summary, the routes to diagnosis that were made by referral from primary care to secondary care, ('rapid access to diagnostics as a suspected cancer' ('2-week wait' - 'TWW') or as a normal 'GP referral'), or patients diagnosed who were already in secondary care as an inpatient or outpatient, were grouped as being diagnosed through 'managed routes'. Definitions of the routes to diagnosis categories used are explained in the Introduction section of this report, under the subsection titled 'Methods used for the Routes to Diagnosis project'. The following points are based on statistical significance unless otherwise stated:

- overall, the most common route was 'emergency presentation' for ovarian cancer and 'managed routes' for uterine, cervical and vulval cancers

- most 'emergency presentation' cases presented through Accident and Emergency ('A&E') (between 56% for ovarian and 66% for cervical cancer) - the 'outpatient emergency' route was more common for younger women

- by age, 'GP referral', 'other outpatient' and 'screen detected' (for cervical cancer) were more common among younger women while 'rapid access to diagnostics as a suspected cancer' and 'emergency presentations' were more common among older women

- by stage and age, generally, 'managed routes' and 'screen detected' (cervical cancers) were the most common routes for younger women with early stage disease; later stage disease was more commonly detected through 'emergency presentation' particularly in older women - for ovarian cancer, 43% to 56% of stage IV cases and for cervical cancers, 42% of stage IV cases in women aged 65 and over were diagnosed through 'emergency presentation'; 'emergency presentation' was also high in younger women with ovarian cancer accounting for 44% of stage IV cases in women under 50

- more specific tumour types (for instance, serous for ovarian cancers, endometrioid adenocarcinoma for uterine cancers and squamous for cervical and vulval cancers) were more commonly diagnosed through 'managed routes' - for cervical cancer, 'screen detected' and 'GP referral' were the most common routes for adenocarcinoma (28% and 31% respectively); less specific tumour types (for example, unclassified epithelial and miscellaneous and unspecified) were more commonly detected through 'emergency presentation'

- women living in more deprived areas had a higher proportion of gynaecological cancers diagnosed at 'emergency presentation' - for women with cervical cancer living in the most deprived fifth of areas nationally (24%), the proportion of cases that were 'screen detected' was lower compared to women in the least deprived fifth of areas (27%)

- gynaecological cancers detected in women of non-white ethnicities were more commonly diagnosed through the 'GP referral' route rather than 'rapid access to diagnostics for a suspected cancer', however, this may be related to differences in age or other factors and therefore requires further investigation

- there were some important differences in routes to diagnosis by geography:
  - ovarian cancer - 'emergency presentation' was the most common route for 7 of the 12 strategic clinical networks (SCN) accounting for 31% to 34% of cases; at area team (AT) level, 'emergency presentation' was significantly high in one area (35%)
  - uterine cancer – 'managed routes' were most common
  - cervical cancer – the proportion of cases that were 'screen detected' varied by SCN from a high of 38% to a low of 6%, which may reflect data quality issues

- generally, survival was worse for women diagnosed through 'emergency presentation', particularly for older women where 3-year survival was as low as 4% for ovarian cancer and 8% for cervical cancer

- survival varied more by age than deprivation - there were some large differences in survival by age for a number of routes, for instance, for those diagnosed through an 'unknown' route, there was a 73% difference in 1-year ovarian cancer survival, a 58% difference in 2-year uterine cancer survival and a 73% difference in 2-year cervical cancer survival between women under 65 and women aged 85 and over

Introduction

The aim of the Routes to Diagnosis project was to use large scale routine data to identify how patients come to be diagnosed with cancer. This allows the exploration of possible reasons for delayed diagnosis. The methodology enables the route by which each patient comes to a cancer diagnosis to be categorised, in order to examine demographic, organisational, service or personal reasons for delayed diagnosis. This work stems from the National Awareness and Early Diagnosis Initiative (NAEDI); this initiative aims to promote early diagnosis of cancer and thereby improve patient outcomes.

Routes to Diagnosis (RtD) findings based on cancers diagnosed in 2006 to 2008 revealed that there was an association between different RtD and relative survival and that in particular:

'23% of newly diagnosed cancer patients came through as emergency presentation. For almost all cancer types, 1-year survival rates were much lower for patients presenting as emergencies than for those presenting via other routes.'
(www.ncin.org.uk/publications/data_briefings/routes_to_diagnosis.aspx)

Following the previous output of RtD released in 2012 based on 2006 to 2008 cancer diagnoses, a further iteration was released in early 2014 based on 2006 to 2010 cancer diagnoses. The 2 documents available on the NCIN website (www.ncin.org.uk) are:
- 'Routes to Diagnosis 2006-2010 workbook': this spreadsheet presents the key statistics from the latest RtD work; 2 types of data are presented: the proportion of total cancers that are diagnosed by each aggregated route listed below, and the relative survival for each aggregated route - the user can select the cancer type of interest, year of diagnosis and survival period. In addition to statistics on the 8 aggregated routes, proportions of total cancers are also presented for 'emergency presentation' broken down into 4 sub-categories (listed under emergency presentation)
- 'Routes to Diagnosis 2006-2010 technical document': this summarises the data sources and methodology used in the Routes to Diagnosis project

In addition to the workbook, a Routes to Diagnosis dataset was released in early 2014. This dataset can be linked to the National Cancer Data Repository (NCDR) and allows users to conduct additional analyses.

Aim of this report

These results compliment the analysis produced in each of the profile reports for uterine, ovarian and cervical cancers[1–3].

The Knowledge and Intelligence Service produced a report in 2012 summarising the results of the routes to diagnosis work based on the previous iteration (2006 to 2008). The 2012 report interpreted the gynaecological RtD results in context with other cancers and summarised the gynaecological results by age and deprivation. This report briefly updates the age and deprivation results for the period 2006 to 2010, but also includes analysis of variation in the routes to diagnosis by ethnicity, geography, stage and age-group as a 2-factor analysis and morphology.

The objective of this report is to provide a profile of the RtD variations for each cancer site, ovarian, uterine, cervical, vulval and vaginal cancer. For each profile:
- summarise briefly incidence and relative survival by RtD, age and deprivation
- summarise incidence by RtD and ethnicity, geography (strategic clinical networks (SCN) and area team (AT, ovarian, uterine and cervical only)), stage and tumour type (morphology)
- for vaginal cancers, as the number of these cases was small, a summary of results for incidence are only provided by age, deprivation, and morphology

Methods used for the routes to diagnosis project

Cancer registrations diagnosed from 2006 to 2010 were obtained from the National Cancer Data Repository (NCDR). This dataset was de-duplicated and linked to routinely collected data from the Hospital Episode Statistics (HES), National Cancer Waiting Times Monitoring dataset and screening data. In total, 70 distinct routes were assigned to each patient. These routes were further categorised into 8 broader categories. These follow:

- **'screen detected' (S)**
  detected by the breast, cervical or bowel screening programmes
- **'2-week wait' ('TWW')**
  urgent 'GP referral' with a suspicion of cancer
- **'GP referral' (GP)**
  routine and urgent referral where the patient was not referred under the '2-week wait' referral route
- **'other outpatient' (OO)**
  an elective route starting with an outpatient appointment: either self-referral, consultant to consultant, other or 'unknown' referral
- **'inpatient elective' (IE)**
  Where no earlier admission can be found prior to admission from a waiting list, booked or planned
- **'emergency presentation' (EP)**
  an emergency route through 'A&E', emergency GP referral, emergency transfer, emergency consultant outpatient referral, emergency admission or attendance; since patients diagnosed by this route tend to have worse outcomes, this category was further investigated in more detail using the following routes:
  - 'A&E'
  - 'GP referral'
  - 'inpatient emergency'
  - 'outpatient emergency'
- **'death certificate only' ('DCO')**
  no data available from inpatient or outpatient HES, CWT, Screening and with a 'death certificate only' diagnosis flagged by the registry in the NCDR
- **'unknown' (U)**
  no data available from inpatient or outpatient HES, CWT, or screening

Additional abbreviations

AT   area team
HES   Hospital Episodes Statistics
NCDR   National Cancer Data Repository
RtD   Route to Diagnosis
SCN   strategic clinical network

Methodology/notes for additional analyses (not included in the RtD workbook)

Linkage

The information from the RtD datasets was linked to the NCDR 2010 using the canreg and canregno variable. The canreg variable holds a 3 to 4 digit code identifying the cancer registry and the canregno variable holds a 7 to 8 digit number identifying cancer registration.

Stage

For the stage analysis, broad FIGO and TNM stage information for ovarian, uterine and vulval cancers are compatible, therefore, to make use of both these sources of information, a single stage variable was compiled using firstly, the FIGO stage and secondly, where FIGO stage was missing, using the TNM stage. For cervical cancers, FIGO and TNM are not compatible stage systems and the completion of TNM stage is generally much lower than FIGO, however, for areas covered by the Eastern Cancer Registration Service, TNM stage was the main staging system that was used. Only the FIGO stage information was used for the cervical stage analysis.

Stage analysis for vulval cancers was conducted excluding those with the following morphologies: basal cell carcinomas, Paget disease and melanomas. These were primarily skin cancers that are staged differently from vulval carcinomas.

Geography

Results at strategic clinical network (SCN) level were obtained from the RtD workbook. Results at area team (AT) level were analysed in addition to the SCN results. Funnel plots were used to illustrate the variation in proportions by SCN and AT. As stated in the 'Routes to Diagnosis workbook', geographies 'that are within '2SD' and '3SD' limits can be considered to be in a 'warning zone', while areas that fall outside the '3SD' limits can be considered to be in an 'alarm zone', with the difference warranting further investigation, therefore, we comment only on geographies that fall outside 3SDs.

Morphology

The cancer morphology is recorded as a 5 digit code, where the first 4 digits refer to the histological subtype and the fifth digit refers to the tumour behaviour code. Morphology is recorded under the ONS type5 data item in the NCDR. Codes were grouped in line with those used in the report of the quality and completeness of gynaecological cancer data in the National Cancer Data Repository 2010 (www.ncin.org.uk/publications/).

The groups unclassified epithelial (ovarian, cervical), other classified and unclassified carcinoma (uterine) and other classified and unclassified epithelial (vulval, vaginal) include tumours with morphologies that have not been classified by a pathologist according to one of the recognised subtypes, as set out by the WHO.

The groups miscellaneous and unspecified (ovarian, uterine), other (cervical), or miscellaneous tumours (vulval, vaginal) include rare or uncommon tumour subtypes and cases where a diagnosis of malignancy has been made without specifying a tumour subtype.

Additional notes

No exclusions have been imposed for cells with small numbers as all have a large denominator prohibiting identification.

All comments made in relation to the results are based on statistical significance unless otherwise stated.

Tables are not provided for results by age, deprivation, ethnicity and SCN. These can be found on the NCIN website: www.ncin.org.uk/publications/routes_to_diagnosis.

Ovarian cancer

Incidence and survival by age

For women aged under 50, 'GP referral' was the most common route at 34%. For women aged 50 to 59, both 'TWW' (29%) and 'GP referral' (27%) were the most common routes. 'TWW' (28%) and 'emergency presentation' (27%) were the most common routes for women aged 60 to 69. For women aged 70 and over, 'emergency presentation' was most common with more than a third of women diagnosed by this route. The variation in referral route by age may be due to several reasons. Ovarian cancer is less common in younger compared to older women[1]. Referral guidelines state that for women aged 50 and above with symptoms such as persistent abdominal distention, tests in primary care should be carried out and women should be referred if tests indicate high risk of malignancy[4], therefore, GPs may be less inclined to refer younger patients for fast-track urgent referral. Diagnosis at 'emergency presentation' for older women may be associated with more advanced stage of disease. Delays in presentation in older women may be due to a lack of symptom awareness[5] or issues related to visiting their GP. Confirming a diagnosis may be further complicated by other co-morbidities in older women[6].

The proportion of cases found through 'inpatient elective' was highest in women aged under 50 (4%), these women may be treated as inpatients for other health problems, particularly associated with gynaecology and pregnancy.

Survival was much poorer for older women with as much as a 73% difference between women under 65 and women aged 85 and over. The greatest differences found for the 'unknown' route, 'emergency presentation' and 'GP referral'. Survival at 12-, 24- and 36-months was 13% or lower for women aged 85 and over diagnosed through 'emergency presentation' and the 'unknown' route. Poorer survival for older women compared to younger women across all RtD may be associated with increased comorbidities[7] precluding the use of more aggressive treatments. Differences in survival by RtD for the different age groups may also be associated with differences in stage of disease as more advanced stage was found through 'emergency presentation' compared to more early stage found through 'TWW' and 'GP referral' (incidence by stage and age section).

Incidence, emergency route by age

Overall, 31% of ovarian cancers (n=8,746) were diagnosed at 'emergency presentation' in 2006 to 2010.

The most common emergency route for ovarian cancers was 'A&E'. More than half (55% to 58%) of all ovarian emergency presentations were detected through the 'A&E' route. The second most common emergency route was 'GP referral' (28% to 36%).

The proportion of cases found through 'outpatient emergency' was highest for women under 50 (12%), this was higher than for women aged 60 and over. A briefing by the NCIN showed that survival for this route was comparable to non-emergency routes ('TWW', 'GP referral')[8]. This may be related to the good prognosis associated with the tumour types most common in women of this age.

Incidence by stage and age

'GP referral' was the most common route for stage I cancers diagnosed in women under 50 (37%) (Figure 1 and Appendix Table A. 2). 'TWW' was the most common route for stage I cancers diagnosed in women aged 50 to 64 (38%) and 65 to 79 (39%). For stage I cases diagnosed in women aged 80 and over, both 'TWW' (32%) and 'GP referral' (38%) were the most common routes. For stage II cancers diagnosed in women aged under 50, 'GP referral' (37%) was the most common route whilst 'TWW' and 'GP referral' were the most common routes for women aged 50 and over.

Though not statistically significantly higher than other routes, 'emergency presentations' accounted for 29% of stage III cases diagnosed in women under 50. In comparison with stages I and II, 'TWW' was the most common route for stage III cancers diagnosed in women aged 50 to 64 (32%). 'Emergency presentation' was the next most common route at 26%. 'TWW' and 'emergency presentation' were the most common routes for stage III cases diagnosed in women aged 65 to 79 (30% to 31%). For women aged 80 and over diagnosed with stage III disease, in comparison to stage IV disease, 'emergency presentation' was the most common route at 41%. Differences in the routes to diagnosis profile between younger and older women may be due to variations in the severity of the symptoms and comorbidities (more common as age increases[7]) which may have made the emergency route a more common pathway for older women. Differences may also be related to the age-thresholds included in the referral guidelines[4], this may influence the mode of referral. Further investigation is required to understand these differences.

For women of all ages diagnosed with stage IV disease, 'emergency presentation' was the most common route (39% to 56%). These may include women who were less aware of ovarian cancer symptoms or who may have been reluctant to go to the doctor[5].

13

Hence, later stage disease may only have been detected through emergency when symptoms became particularly acute.

The proportion of 'emergency presentations' for women aged under 50 with stage I disease was higher than for other age groups. This may be, in part, explained by one study's findings that the number of pre-referral consultations was inversely associated with increasing age[9] ie younger women were more likely to visit their doctor on more occasions prior to referral than older women, therefore, younger women may have attended 'A&E' as a last resort.
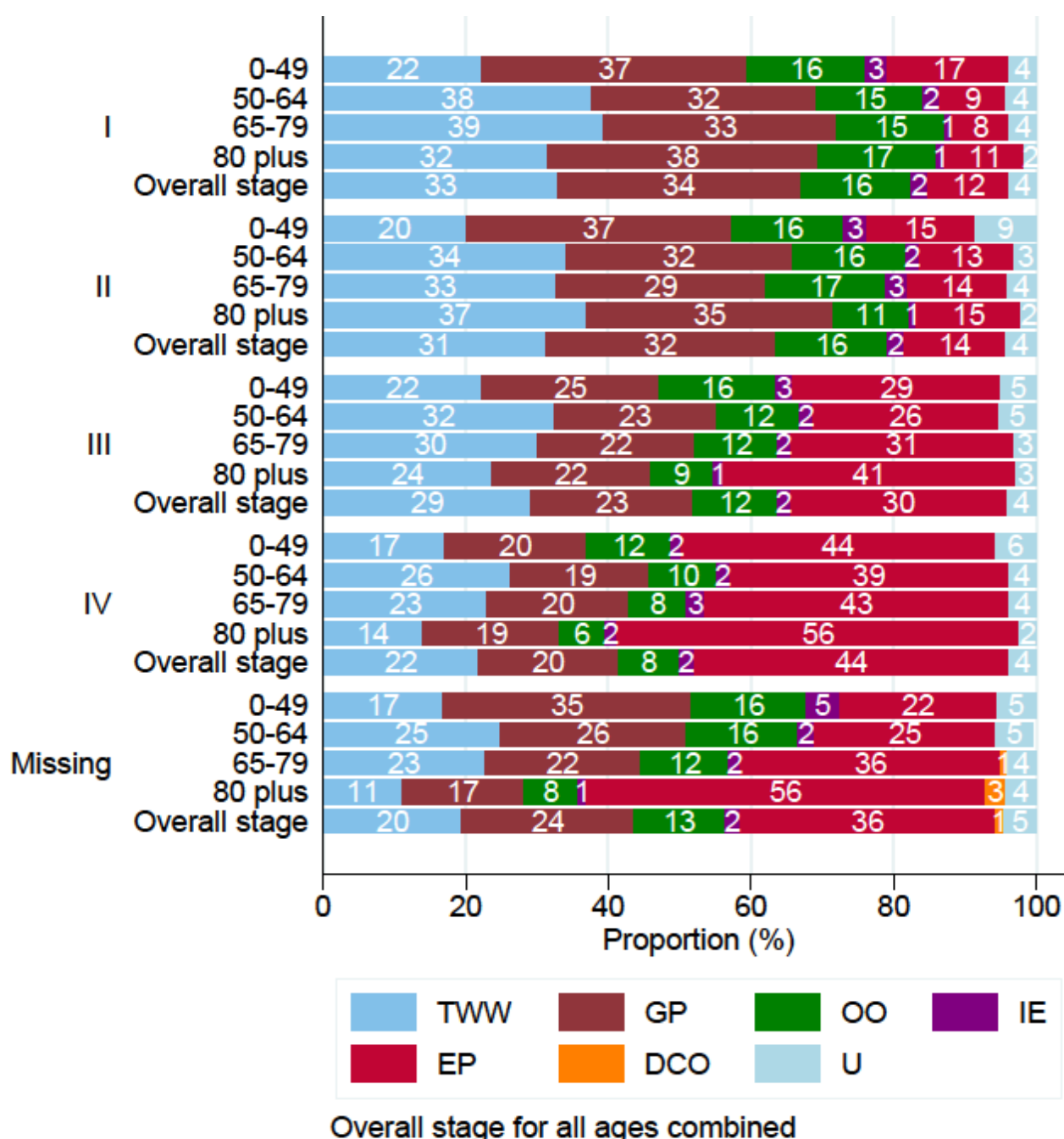
Figure 1: ovarian cancer – stacked bar chart of the proportion of cases by RtD, stage and age, 2006 to 2010 (figures in Appendix Table A. 2).

14

Incidence by morphology group

'TWW' was the most common route for endometrioid (36%), clear cell (35%), mucinous (32%) and serous (31%) carcinomas (Figure 2 and Appendix Table A. 3). Those with an older and more affluent profile[1] or the severity of symptoms for these tumour types may explain why these tumours were more likely to be diagnosed through 'TWW'.

'GP referral' was the most common route for borderline epithelial (45%) and sex cord-stromal or germ cell (34%) tumours. These tumour types are more commonly found in younger women[1]. Borderline epithelial tumours are often diagnosed at an early stage[10], generally these tumours progress slowly with fewer symptoms which may be why these cases were GP referred.

'TWW' and 'GP referral' were common for other classified epithelial and epithelial stromal tumours (27 to 28%), however, a quarter of cases were also diagnosed at 'emergency presentation'. 'Emergency presentation' was the most common route for unclassified epithelial and miscellaneous and unspecified tumours accounting for 49% of cases for both tumour types. With more than 50% of these tumour types occurring in women aged 80 and over[1], the diagnosis by these routes may therefore be related to the age-specific issues discussed in the age section above.
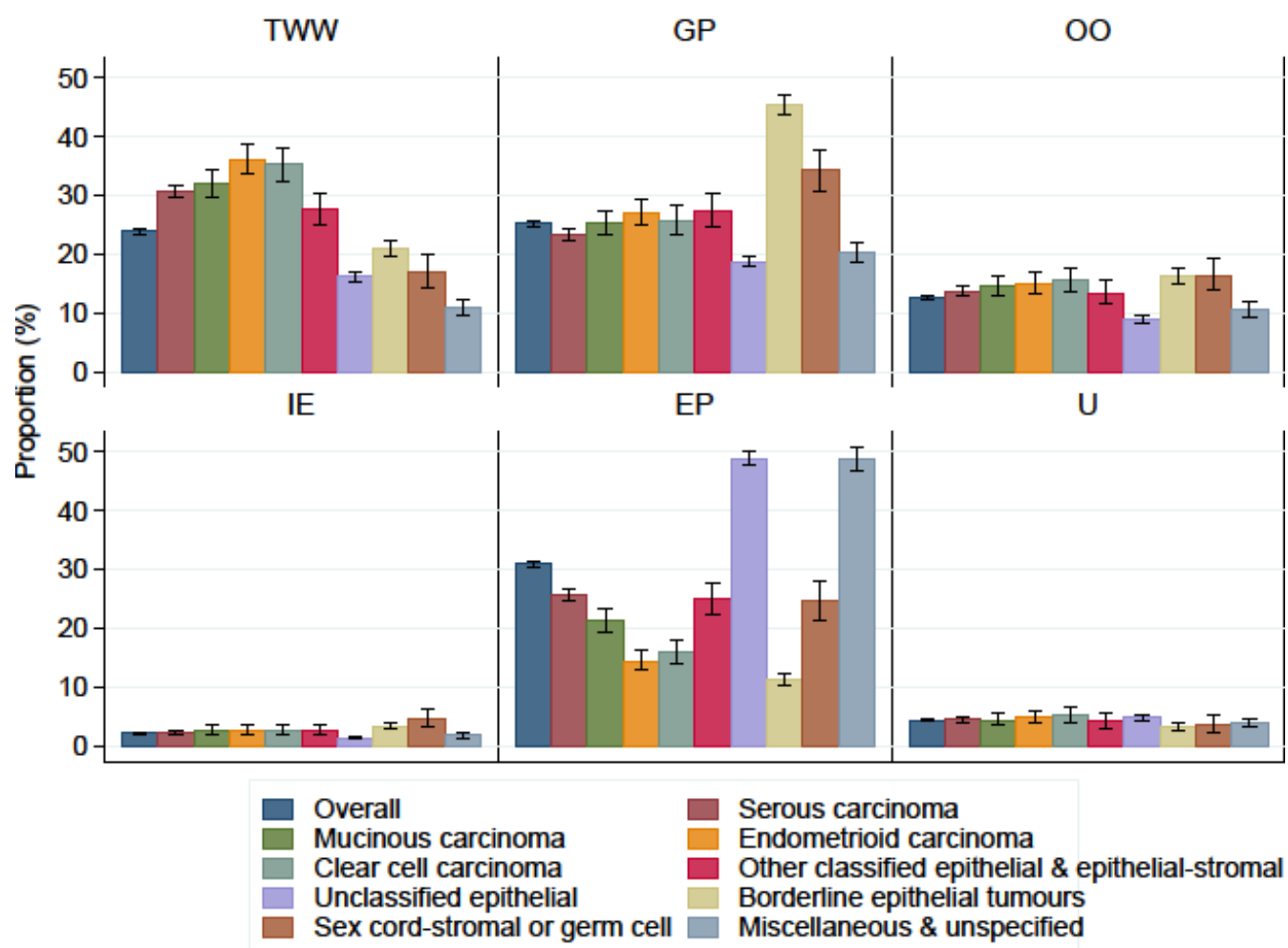
Figure 2: ovarian cancer – bar chart with 95% CIs of the proportion of cases by RtD (excluding 'DCO') and morphology group, 2006 to 2010 (figures in Appendix Table A. 3).

Incidence and survival by deprivation

Nationally, of the 3 main routes to diagnosis ('TWW', 'GP' and 'EP'), 'TWW' was the least common route for women living in the most deprived quintile, accounting for 21% of cases. For all other deprivation quintiles, 'TWW' and 'GP referral' accounted for around a quarter of all cases. 'Emergency presentation' was higher than all other routes for women living in all but the least deprived quintile, accounting for 30% or more of cases. Women living in the least deprived quintile had the lowest proportion of cases diagnosed at 'emergency presentation' at 27%.

More deprived women may be less symptom aware[11] and/or more reluctant to visit their GP[5], which may mean they were more likely to attend 'A&E' when symptoms became acute. GPs may also associate symptoms with other ailments more prevalent in areas of high deprivation due to lifestyle factors, and therefore may not have fast-tracked patients as an urgent TWW referral. Smoking, which is more prevalent in more deprived areas[12], has also been associated with a higher risk of mucinous carcinomas[13] of which 21% were detected through emergency presentations.

The 'unknown' route was more common in the least deprived quintile (7%) compared to other more deprived quintiles (2% to 5%). More affluent women may be diagnosed and treated by privately funded care and, therefore, may not be recorded in CWT or HES activity.

Women living in the most deprived quintile diagnosed by 'emergency presentation' had lower 6-month survival (50%) compared to women living in the least deprived quintile (56%), however, there were no statistically significant differences for 12-month survival onwards. For cases detected through the 'unknown' route, there were significant gaps between the least and most deprived quintiles for:
- 6-month survival - least deprived 83%, most deprived 63%, difference 20%
- 12-month survival - least deprived 76%, most deprived 59%, difference 17%

Incidence by ethnicity

The proportion of cases diagnosed through 'TWW' was lower than 'GP referral' for women of Asian (17%), black (15%) and 'unknown' (12%) ethnicity. 'GP referral' was similar to 'TWW' for Chinese, mixed and other ethnic groups, although these were based on small numbers. 'GP referral' and 'TWW' each accounted for a quarter of cases diagnosed in women of white ethnicity. 'Emergency presentation' was the most common route for women of white ethnicity at 31%. Though not statistically significantly higher than the national average (31%), 'emergency presentation' was highest among women of black ethnicity at 35%. For Chinese women, only 16% of cases were diagnosed at 'emergency presentation', this was statistically significantly lower than white, black and unknown ethnicities.

Variation in diagnosis route may be related to levels of symptom awareness as one study found that ethnic minorities were less likely to recall the symptoms of cancer compared to white respondents[11]. Variations may be also due to differences in demographics such as age and/or deprivation.

Incidence by geography

Strategic clinical network (SCN)

'Emergency presentation' was the most common route for 7 SCNs:
- South East Coast (N58, 34%)
- Wessex (N60, 33%)
- Cheshire and Mersey (N50, 32%)
- London (N61), South West (N57) and West Midlands (N56) (31%)
- Thames Valley (N59, 30%)

None of these SCNs had proportions that were greater than 3SDs above the national average (Figure 3). After 'emergency presentations', 'GP referral' was more common than 'TWW' in London (24%) and West Midlands (27%) and 'TWW' was more common than 'GP referral' in South West (27%).

'TWW' and 'emergency presentation' were the most common routes for the East Midlands (27% and 30%). 'GP referral' and 'emergency presentations' were the most common routes for East of England (29% and 30%) and Greater Manchester, Lancashire and Cumbria (30% and 29%). In North East Cumbria and North Yorkshire SCN, a similar proportion of women were diagnosed by all three routes.

The lowest proportion of:
- 'TWW' was found for London (N61, 19%)
- 'GP referrals' was found for Cheshire and Mersey (N50, 21%)
- 'emergency presentations' was found for Greater Manchester, Lancashire and South Cumbria (N51, 29%)

The proportion of cases found by the 'unknown' route was high for South East Coast (N58), London (N61) and Thames Valley (N59) SCN at 7% to 8% compared to 4% nationally.

Variation in routes to diagnosis may be due to demographic differences in population such as age, ethnicity or deprivation. Variation may also be due to differences in how patients are referred or how they access primary care independent of age, ethnicity or socioeconomic characteristics. Coding and/or reporting practices locally or regionally may also be related to these differences. For instance, Greater Manchester, Lancashire and South Cumbria had a higher proportion of 'GP referrals' but a lower proportion of 'TWW' compared to their respective national averages and as both are considered managed outpatient department routes, this may suggest possible coding issues. The higher proportion of women who presented at emergency in the South East Coast SCN

may be associated with the much poorer one and 5-year survival found in women resident in cancer networks covered by this SCN[1].

Figure 3: ovarian cancer – funnel plot of the proportion of cases by RtD and strategic clinical network, 2006 to 2010, a) 'GP referral', b) 'TWW' and c) 'emergency presentation' (figures available in RtD workbook).

Area teams (AT)

'Emergency presentation' was the most common route for:
- Surrey and Sussex (Q68, 35%)
- West Yorkshire (Q52, 34%)
- Wessex (Q70) and Shropshire and Staffordshire (Q60) (33%)
- London (Q71) and Merseyside (Q48) (31%)
- Thames Valley (Q69, 30%) (Appendix Table A. 4)

For Surrey and Sussex, 'emergency presentation' was the most common route for diagnosis years 2007, 2009 and 2010, and for all years combined (2006 to 2010), was higher than the national average (Figure 4). This AT falls within the South East Coast SCN which, though was not outside 3SDs above the national average, had the highest proportion of 'emergency presentations' compared to other SCNs. For all other ATs, the proportion of cases diagnosed through 'emergency presentation' was similar to 'TWW' and/or 'GP referral'. Merseyside also had the highest proportion of cases diagnosed through 'other outpatient' (20%), similar to 'TWW' and 'GP referral'.

Again, variation may be due to differences in demographics, referral-, coding- or reporting practices therefore, care must be taken with interpretation.
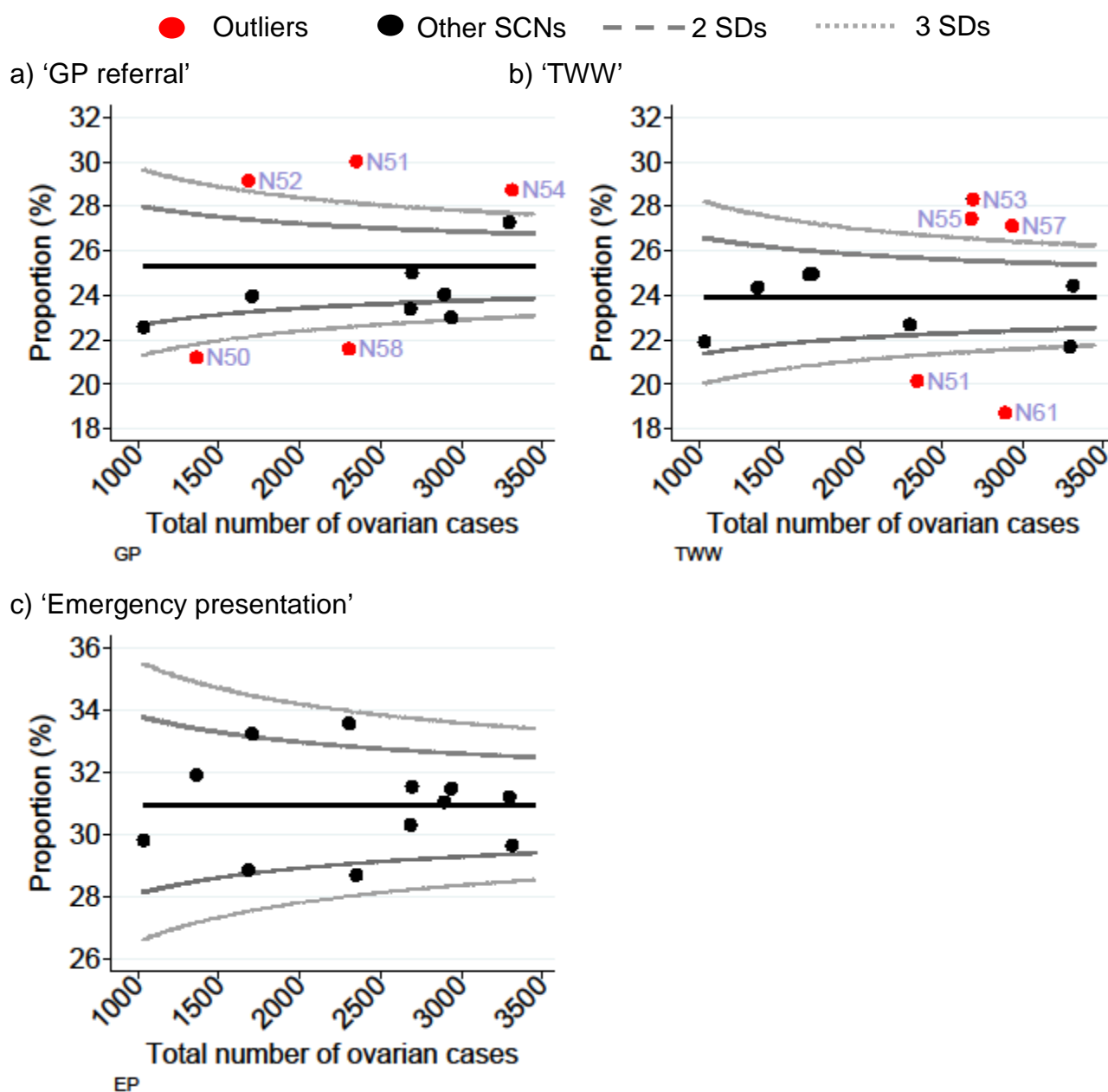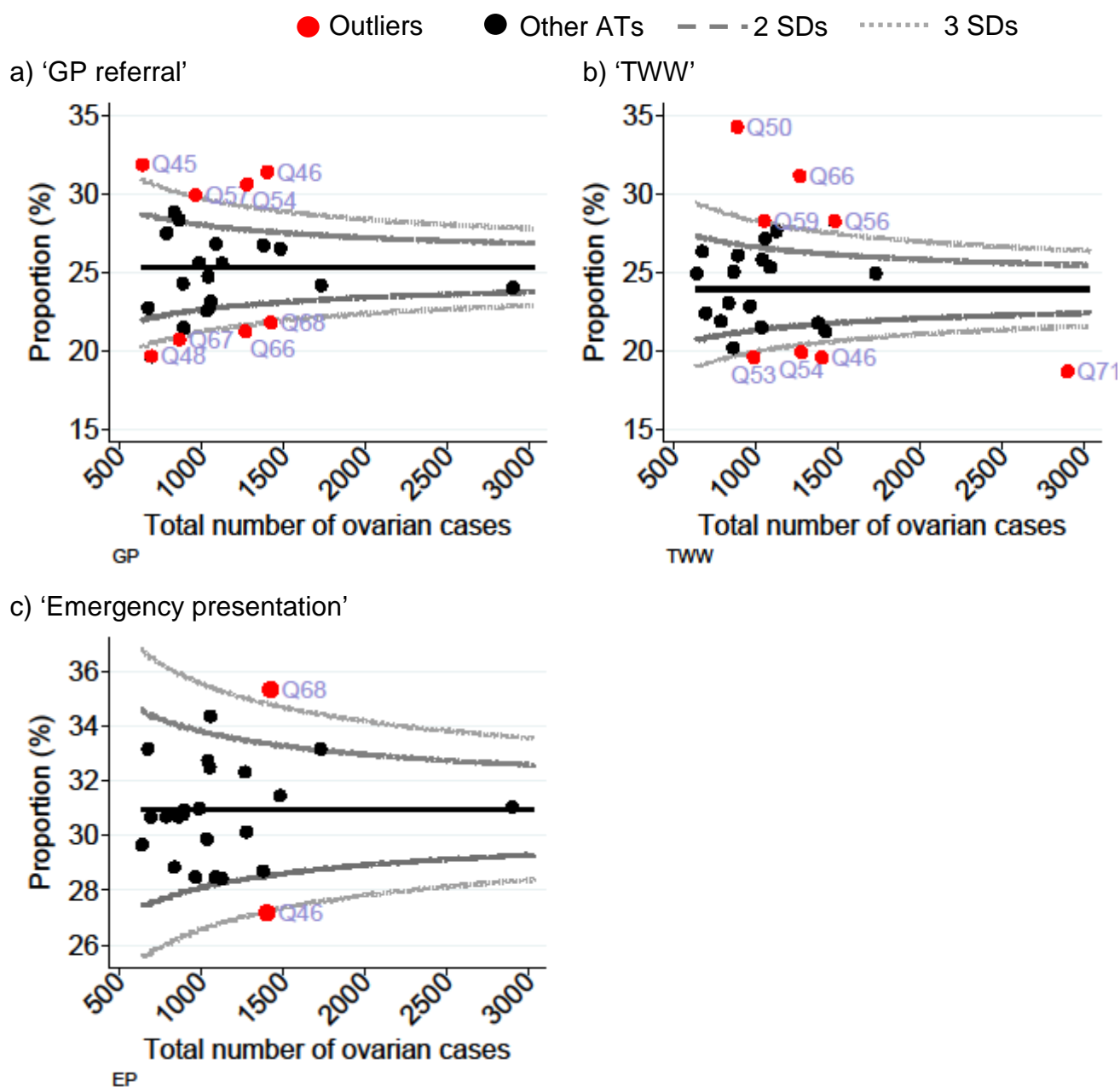
Figure 4: ovarian cancer – funnel plot of the proportion of cases by RtD and area team, 2006 to 2010, a) 'GP referral', b) 'TWW' and c) 'emergency presentation' (figures in Appendix Table A. 4).

Uterine cancer

Incidence and survival by age

'GP referral' was the most common route for women under 50 (57%), followed by 'other outpatient' (16%). The most common route for women aged 50 to 59 was 'GP referral' (43%) followed by 'TWW' (35%). For women aged 60 to 84, 'TWW' (42 to 47%) was the most common route followed by 'GP referral' (31% to 36%). For women aged 85 and over, 'TWW' (30%), 'GP referral' (27%) and 'emergency presentation' (27%) were the most common routes. 'Emergency presentation' was more common for women aged 85 and over (27%) than for younger age-groups.

Most uterine cancer cases are detected in women with postmenopausal bleeding[14], therefore, older women, particularly those who have gone through the menopause and who were not on hormone replacement therapy (HRT) or had irregular bleeding once HRT has ceased for 6 weeks or more, were more likely to meet the criteria for TWW urgent referral for suspected uterine cancer[15]. Younger women may have been less likely to be referred as a TWW urgent referral as they may not meet the criteria for TWW referral.

The proportion of cases detected through 'other outpatient' (16%) and 'inpatient elective' (3%) routes was higher for women under 50 compared to older age-groups. These may have included women who were being treated as outpatients, or admitted for treatment for other conditions related to obesity or for gynaecological conditions that cause irregular bleeding in younger premenopausal women, such as PCOS.

Though numbers diagnosed through the 'unknown' route were small, this route had the widest gaps in survival when comparing women aged under 65 and women aged 85 and over. Survival at 6-months for women under 65 was 97% compared to 44% for women aged 85 and over (difference of 53%). Survival at 24-months for women under 65 was 91% compared to 33% for women aged 85 and over (difference of 58%). There were also large differences for:
- 'emergency presentation'
  - 6-month – 0 to 64 77%, 85+ 41%, 37% difference
  - 12-month – 0 to 64 70%, 85+ 32%, 38% difference
  - 24-month – 0 to 64 63%, 85+ 22%,41% difference
- 'other outpatient' 36-month – 0 to 64 86%, 85+ 44%, 42% difference

As with ovarian cancer, poorer overall health and extent of disease may have precluded older women from more aggressive treatments.

Incidence, emergency route by age

Overall, 8% of uterine cancers (n=2,636) were diagnosed at 'emergency presentation' in 2006 to 2010.

'A&E' was the most common emergency route for uterine cancers in each age-group. This route accounted for 48% of 'emergency presentation' cases diagnosed in women under 50 to 66% of cases diagnosed in women aged 85 and over. Women under 50 (29%) had a higher proportion detected through 'outpatient emergency' than women aged 70 and over (9% to 19%).

Incidence by stage and age

Though only around 7% of uterine cancers were diagnosed in women under 50, for stage I-III and missing stage cancers diagnosed in women aged under 50, 'GP referral' was the most common route accounting for 50% to 62% (Figure 5 and Appendix Table A. 5).

For women aged 50 to 64 diagnosed with stage I-IV cancer, 'GP referral' and 'TWW' were the 2 most common routes however, for women with missing stage, 'GP referral' was the most common route (40%).

For women aged 65 to 79 diagnosed with stage I-IV cancer or with missing stage, 'TWW' was the most common route accounting for 47 to 51% of cases.

For women aged 80 and over diagnosed with stage I and III, 'TWW' was the most common route (48% and 44% respectively) followed by 'GP referral'. For women aged 80 and over with stage II or IV cancer or with missing stage, 'TWW', 'GP referral' and 'emergency presentations' (for stage IV cancers and missing stage) were the most common routes. The proportion of cases detected through 'emergency presentation' in women aged 80 and over with missing stage was higher at 29% compared to younger age-groups (8% to 13%).

'Emergency presentation' was more common with later stage disease, particularly in women under 50 and women aged 80 and over. Late diagnosis in younger women may be related to irregular bleeding attributed to other gynaecological conditions rather than cancer; this may have led to delays in presentation and acute symptoms that result in 'A&E' attendance. For older women, issues relating to visiting their GP or lack of symptom awareness[5] may have delayed diagnosis, with acute symptoms attributed to the cancer and possibly other comorbidities resulting in an emergency presentation.
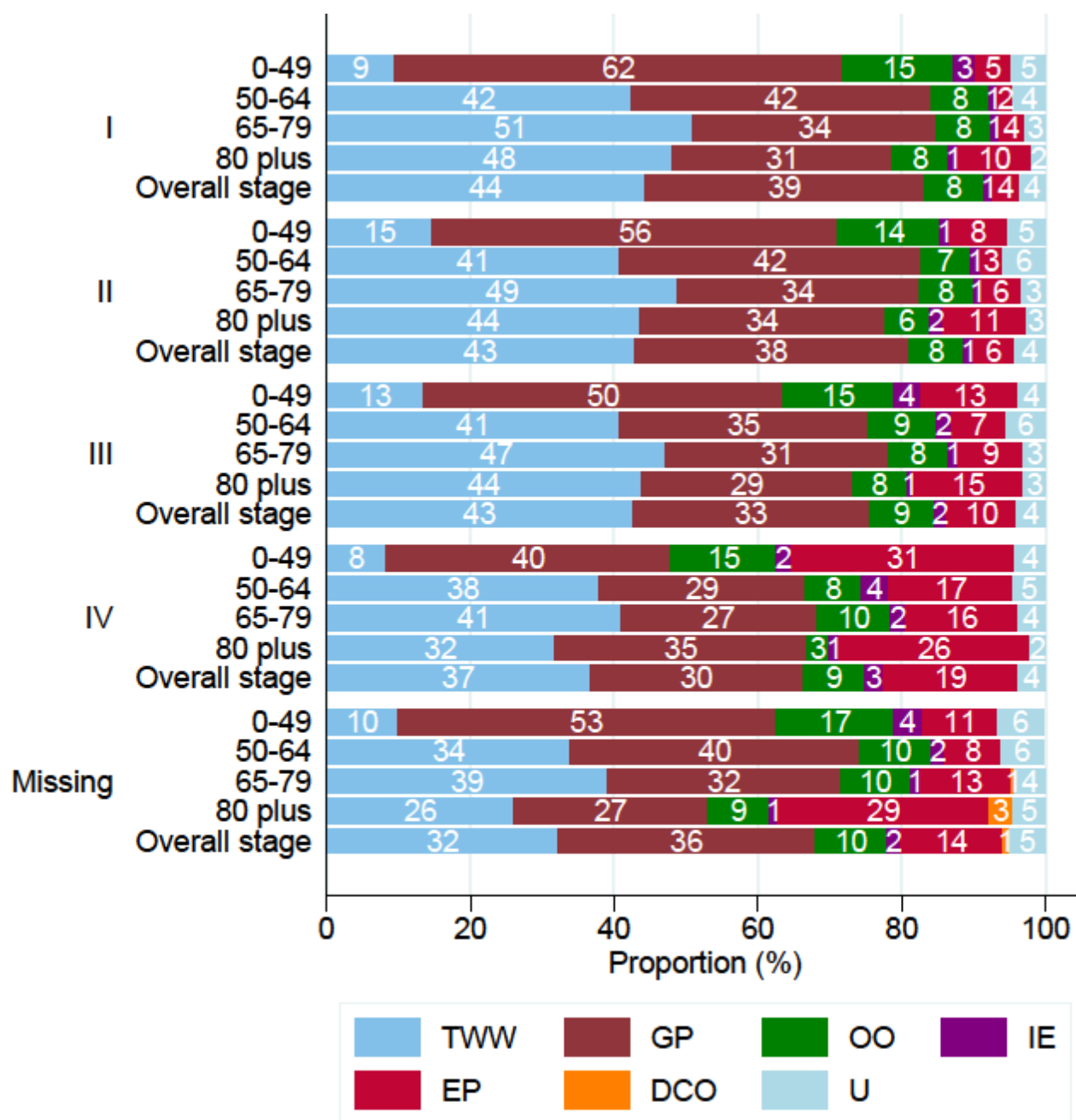
Overall stage for all ages combined

Figure 5: uterine cancer – stacked bar chart of the proportion of cases by RtD, stage and age, 2006 to 2010 (figures in Appendix Table A. 5).

Incidence by morphology group

For clear cell and papillary serous carcinoma, endometrioid adenocarcinoma and mixed epithelial and mesenchymal tumours, the most common route was 'TWW' accounting for 42% to 46% of cases (Figure 6 and Appendix Table A. 6). These tumours, particularly clear cell and papillary serous carcinoma, are more common in older women[2,16] therefore, these women may have been more likely to be referred through 'TWW'. The second most common route for these tumour types was 'GP referral' accounting for 31% to 39% of cases.

For endometrial stromal sarcoma and leiomyosarcoma, 'GP referral' was the most common route accounting for 40% to 45% of cases. These tumour types are more common in younger women[2] for whom the most common route was 'GP referral'. The proportion of cases found through 'other outpatient' was higher for leiomyosarcoma (14%) and endometrial stromal sarcoma (16%) than the national average (9%). The proportions of sarcomas (endometrial stromal sarcoma, leiomyosarcoma and miscellaneous sarcoma, 13% to 30%) diagnosed at 'emergency presentation' were higher than other tumour types and significantly higher than the national average (8%). These differences by route show that not only are uterine sarcomas epidemiologically and clinically different from other uterine cancer types, they also differ in the way that they are diagnosed. This lends support to the separation of sarcomas from analyses of other uterine tumour types (Appendix, Inclusion of Sarcomas in Uterine Cancer Analysis).

Less specific tumour types (other and unclassified carcinoma and miscellaneous and unspecified) were more commonly diagnosed at 'emergency presentation'. These may represent older women with advanced disease and/or increasing comorbidities which may have precluded histological examination or inhibited a specific histological diagnosis.
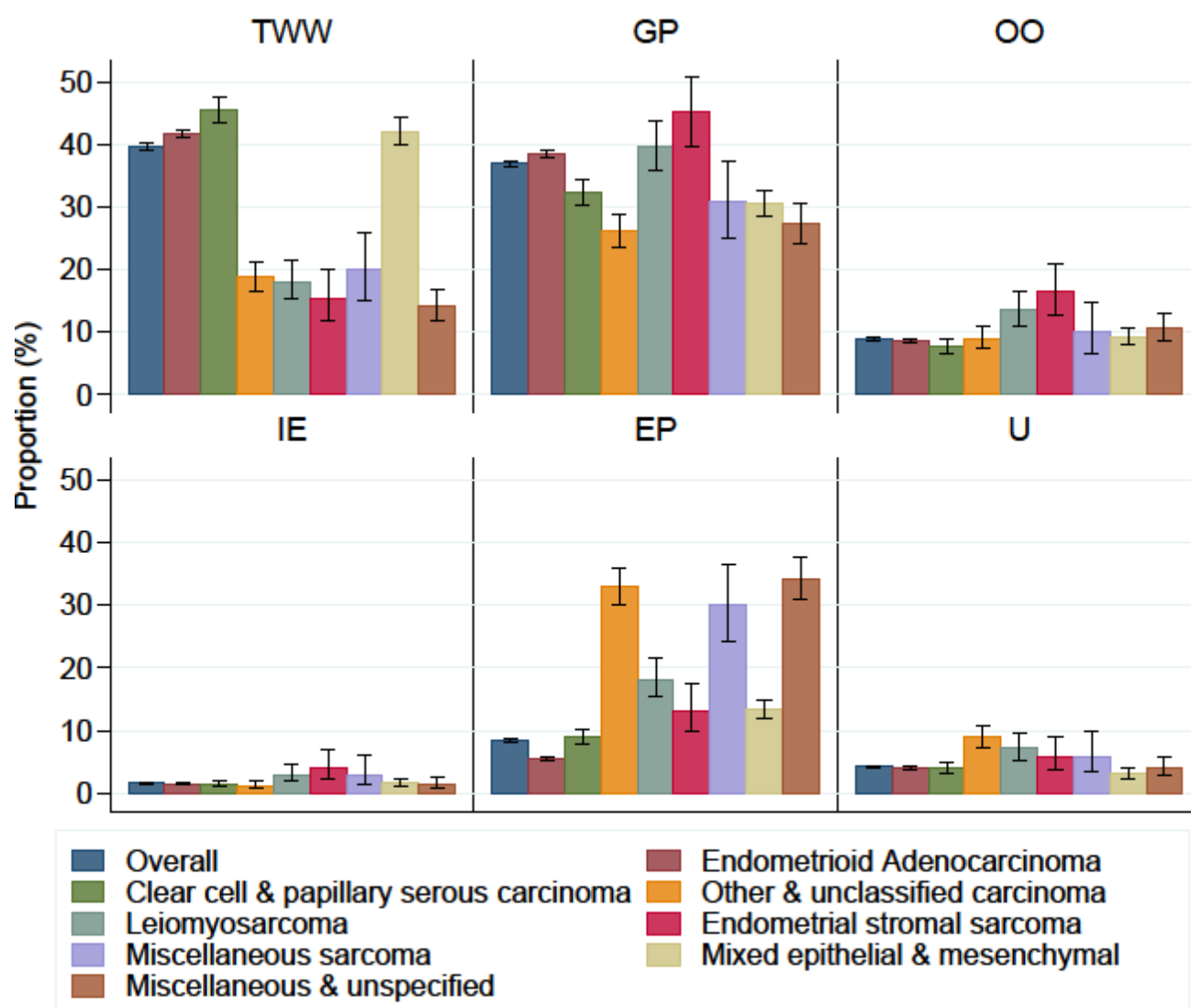
Figure 6: uterine cancer – bar chart with 95% CIs of the proportion of cases by RtD (excluding 'DCO') and morphology group, 2006 to 2010 (figures in Appendix Table A. 6).

Incidence and survival by deprivation

For women living in the least deprived, second most and most deprived quintiles nationally; 'TWW' and 'GP referral' were the most common routes accounting for 37% to 39% of cases. For women living in the second and third least deprived quintiles, 'TWW' (41% to 42%) was the most common route followed by 'GP referral' (36% to 37%). 'Emergency presentation' was more common in the 2 most deprived quintiles (10% to 11%) compared to the least deprived quintile (6%) although the differences were relatively small. Increased rates of obesity[17], comorbidities, and/or lack of symptom awareness[11] in more deprived areas may explain why women living in these areas are at more risk of developing more advanced cancer with more acute symptoms.

The proportion of cases detected through 'unknown' routes was higher for women living in the least deprived quintile (8%) compared to all other quintiles (2% to 5%). These may include cases that were treated using private healthcare.

Women living in the most deprived and/or second most deprived quintiles diagnosed through 'unknown' routes had lower 6- and 12-month survival compared to women living in the least deprived quintile. Survival at 6-months for women living in the least deprived quintile was 96% compared to 86% for those living in the two most deprived quintiles. Survival at 12-months for women living in the least deprived quintile was 93% compared to 80% for those living in the second most deprived quintile. Differences in survival by referral route may be related to the association between deprivation and stage of disease for uterine cancer[18].

Incidence by ethnicity

'TWW' (41%) was the most common route for cases detected among women of white ethnicity, followed by 'GP referral' (37%). 'GP referral' was the most common route for women of Asian (44%) and Chinese (45%) ethnicity. Compared to the national average (40%), the proportion of 'TWW' diagnosed cases among women of Asian, black, Chinese and unknown ethnicity was lower (24% to 31%). One study found that, compared to those of white ethnicity, ethnic minorities were more likely to have 3 or more pre-referral consultations[9]. Therefore, these results may indicate possible differences in referral practices between areas with different ethnicity profiles.

The proportion of cases detected through 'emergency presentation' was higher for women of black ethnicity (12%) compared to the proportion for women of white ethnicity and the national average (8%). This may result in poorer outcomes for women of black ethnicity as those diagnosed at 'emergency presentation' had particularly poor survival.

Incidence by geography

Strategic clinical network (SCN)

For all SCNs, the most common routes were 'TWW' and/or 'GP referral'. 'TWW' was more common than 'GP referral' for 6 SCNs:

- South West (N57, 45% 'TWW', 35% 'GP referral')
- East Midlands (N55, 44% 'TWW', 34% 'GP referral')
- North East Cumbria and North Yorkshire (N52, 44% 'TWW', 36% 'GP referral')
- Yorkshire and the Humber (N53, 42% 'TWW', 36% 'GP referral')
- Cheshire and Mersey (N50, 40% 'TWW', 32% 'GP referral')
- Thames Valley (N59, 40% 'TWW', 33% 'GP referral')

For the first 3 SCNs listed, the proportion of cases detected through 'TWW' was higher than the national average (Figure 7). Trends by diagnosis year for these outliers show that for East Midlands and South West, 'TWW' increased whilst 'GP referral' decreased however, the difference between these 2 routes was only significant from 2008 onwards. The proportion of 'TWW' cases for North East Cumbria and North Yorkshire was consistent from 2006 to 2010 however, was only significantly different from 'GP referrals' for the year 2009.

For Wessex (N60), 'GP referral' (42%) was higher whilst 'TWW' was lower than their corresponding national averages (Figure 7). This may suggest differences in coding practices. Variations by SCN may also reflect differences in the demographic profile of the areas and possibly differences in referral or reporting practices.

Figure 7: uterine cancer – funnel plot of the proportion of cases by RtD and strategic clinical network, 2006 to 2010, a) 'GP referral' b) 'TWW', and c) 'emergency presentation' (figures available in RtD workbook).

Area teams (AT)

For all ATs, the most common routes were 'TWW' and/or 'GP referral'. 'TWW' was more common than 'GP referral' for the following ATs:

- East Anglia (Q56, 49% 'TWW', 34% 'GP referral')
- Devon, Cornwall and Isles of Scilly (Q66, 48% 'TWW', 33% 'GP referral')
- Bristol, North Somerset, Somerset and South Gloucestershire (Q65, 47% 'TWW', 33% 'GP referral')
- Cumbria, Northumberland, Tyne and Wear (Q49, 47% 'TWW', 32% 'GP referral')
- Derbyshire and Nottinghamshire (Q55, 47% 'TWW', 32% 'GP referral')
- Lancashire (Q47, 44% 'TWW', 35% 'GP referral')
- Shropshire and Staffordshire (Q60, 44% 'TWW', 36% 'GP referral')
- West Yorkshire (Q52, 43% 'TWW', 34% 'GP referral')
- Thames Valley (Q69, 41% 'TWW', 33% 'GP referral')
- Merseyside (Q48, 38% 'TWW', 30% 'GP referral') (Appendix Table A. 7).

For the first 5 ATs listed, these proportions were higher than that national average (Figure 8). Examining trends for these outliers, with exception to Cumbria, Northumberland, Tyne and Wear, the proportion of 'TWW' cases increased from 2006 to 2010 whereas 'GP referrals' decreased and the difference between these 2 routes was significant from 2008 or 2009 onwards.

'GP referral' was more common than 'TWW' for:

- Arden, Herefordshire and Worcestershire (Q53, 44% 'GP referral', 31% 'TWW')
- Essex (Q57, 44% 'GP referral', 37% 'TWW')
- Wessex (Q70, 42% 'GP referral', 33% 'TWW').

The proportion of 'GP referrals' for these ATs was higher than the national average (Figure 8).

Again, variation may be due to differences in demographics, referral-, or reporting practices, therefore, care must be taken with interpretation. Arden, Herefordshire and Worcestershire, Wessex, Derbyshire and Nottinghamshire and Cumbria, Northumberland, Tyne and Wear are examples where 'GP referral' was 3SDs above the national average however, 'TWW' was 3SDs below the national average (or vice versa) which may highlight issues with coding practice.
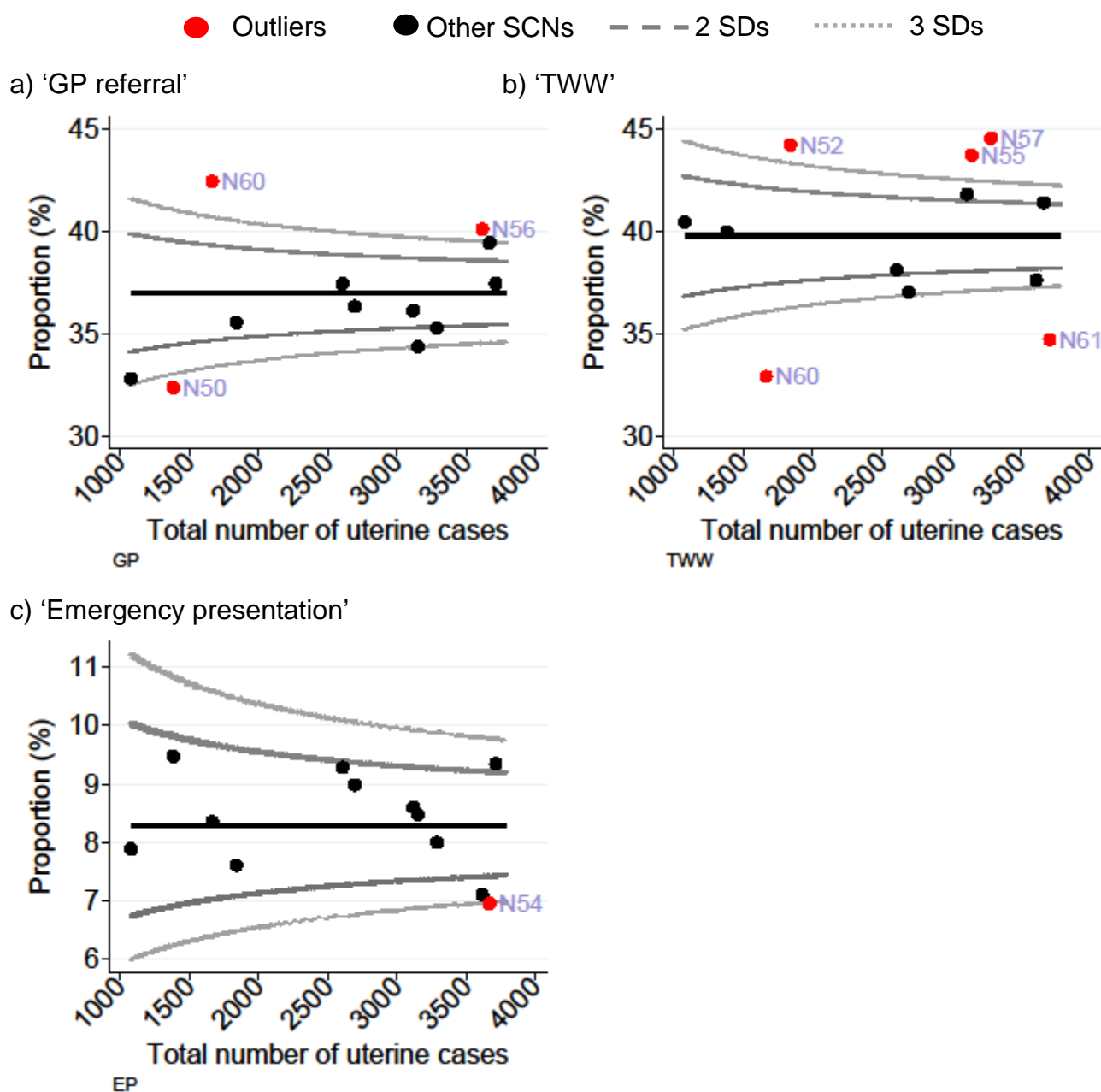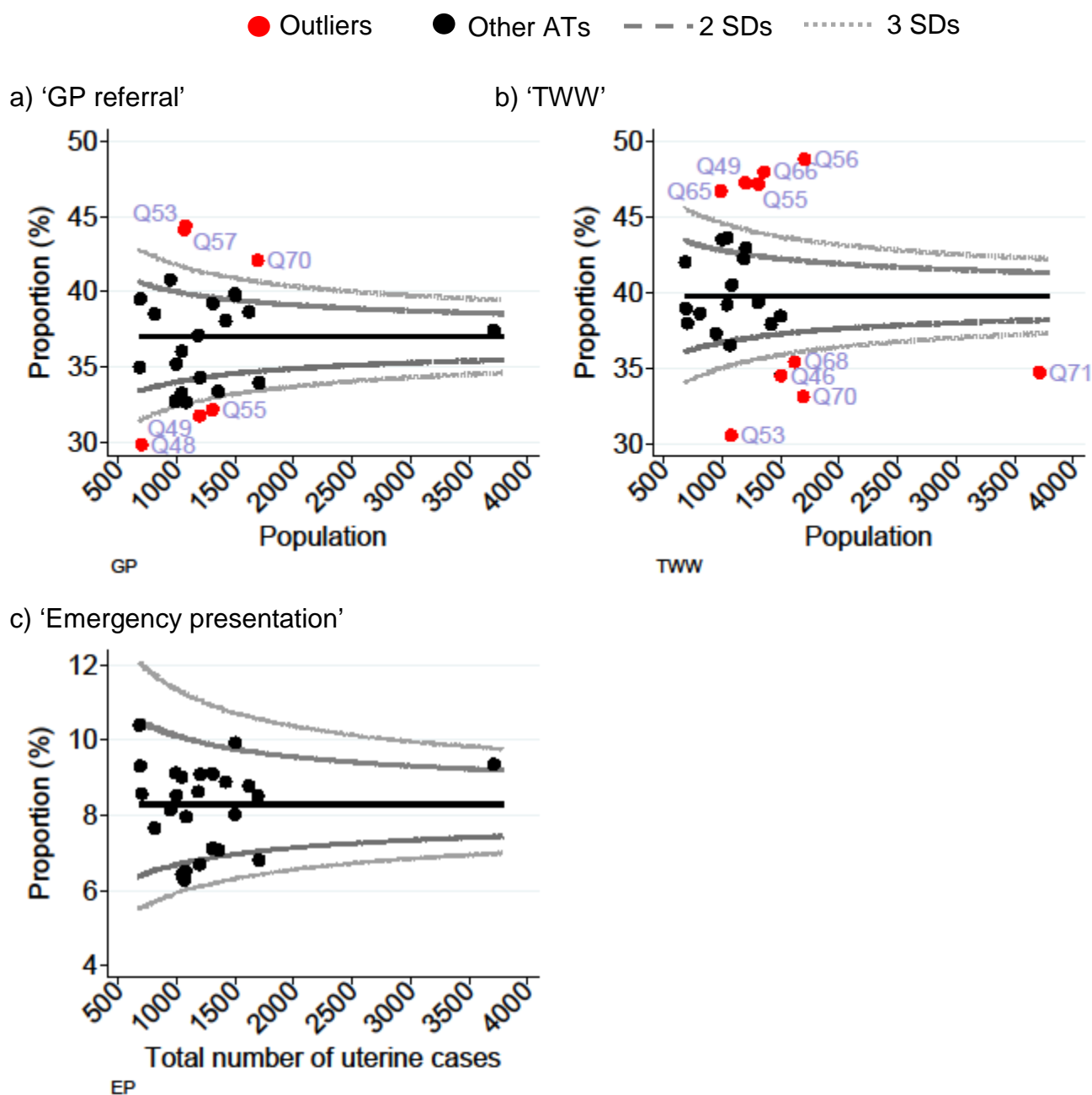
Figure 8: uterine cancer – funnel plot of the proportion of cases by RtD and area team, 2006 to 2010, a) 'GP referral' b) 'TWW', and c) 'emergency presentation' (figures in Appendix Table A. 7).

Cervical cancer

Incidence and survival by age

For women under 50, 'screen detected' and 'GP referral' were the 2 most common routes both accounting for 34% of cases. Women under 50 (12%) had a higher proportion of cases that were detected through 'other outpatient' compared to women aged 60 and over. These younger women may have been diagnosed while attending hospital for other gynaecological related issues such as pregnancy.

Though older than the normal screening age range (England 25 to 64), 2% of women aged 70 to 79 and 1% of women aged 85 and over were 'screen detected'. Further investigation here is required, however, this may be due to women who had a history of abnormal smears that were followed up with more screening investigations or women who had not previously been screened since turning 50[19].

For women aged 50 to 59, 'GP referral' (31%) was the most common route followed by 'TWW' (22%) and 'screen detected' (19%). For women aged 60 to 69, 'TWW' (31%) and 'GP referral' (27%) were the most common routes. For women aged 70 to 79, 'TWW' (35%) was the most common route followed by 'GP referral' (28%) and 'emergency presentation' (23%). For women aged 80 to 84, 'TWW', 'GP referral' and 'emergency presentation' were the most common routes (28% to 35%). For women aged 85 and over, 'emergency presentation' (40%) was the most common route, followed by 'TWW' (24%) and 'GP referral' (23%).

Comparing women aged under 65 to women 85 and over, those diagnosed through the 'unknown' route had the widest gaps in survival; 24-month survival was 86% for women under 65 compared to 13% for women aged 85 and over (difference of 73%). Cases diagnosed through 'GP referral' or 'other outpatient' also had notably wide differences between the youngest and oldest age-groups. For 'emergency presentation', the gaps in 12-, 24- and 36-month survival between women under 65 and aged 85 and over were similar to 'TWW', however, 36-month survival for women aged 85 and over detected through 'emergency presentations' was extremely low at 8%.

Differences in survival between routes may be due to possible variations in the profile of women diagnosed, for instance, through 'emergency presentation' compared to 'screen detected'. Cervical cancers found through screening were likely to be younger women with early stage disease (because of regular screening for this target age-group) whereas cases diagnosed at 'emergency presentation' were likely to be older with more advanced disease.

Incidence, emergency route by age

Overall, 11% of cervical cancers (n=1,374) were diagnosed at 'emergency presentation' in 2006 to 2010.

The most common emergency route for cervical cancers was A&E (62% to 72%). With the exception of women aged under 50 and 60 to 69, the second most common emergency route was 'GP referral', this route accounted for 22% to 23% of cervical 'emergency presentations'. The proportion of 'emergency presentations' found through 'outpatient emergency' was higher for women aged under 50 (14%) compared to women aged 85 and over (6%).

Incidence by stage and age

For stage I cancers diagnosed in women aged under 50, screening was the most common route at 42% (Figure 9 and Appendix Table A. 8). A third of women in this age-group were also diagnosed by 'GP referral'. 'Screen detected' cases were less common in women under 50 with later stage disease, however, this route still accounted for 15% of stage III and 10% of stage IV cases. For women under 50 with stage II cancer, 'GP referral' was the most common route (36%). For stages III and IV, 'emergency presentation' was more common, rising to 35% in women diagnosed with metastatic disease. This indicates that women who attend screening were more likely to be diagnosed at an early stage than women who did not attend or attended infrequently.

'Screen detected' (31%) and 'GP referral' (35%) were the most common routes for women aged 50 to 64 diagnosed with stage I disease. Again, 'screen detected' cases were less common in women aged 50 to 64 with later stage disease, with 'emergency presentation', 'TWW' and/or 'GP referral' the most common routes for later stage disease.

For women aged 65 to 79 diagnosed with stage I disease, both 'TWW' and 'GP referral' were the most common routes, however, for women of this age-group diagnosed with stage II and III cancer, 'TWW' was the most common route accounting for 45% to 46% of cases. For stage IV disease, 'emergency presentation' was higher than any other route at 42%.

For women aged 80 and over diagnosed with stage I disease, 'TWW' was the most common route (43%), however, as stage of disease advanced, 'emergency presentation' also became more common accounting for 42% of stage IV cases.
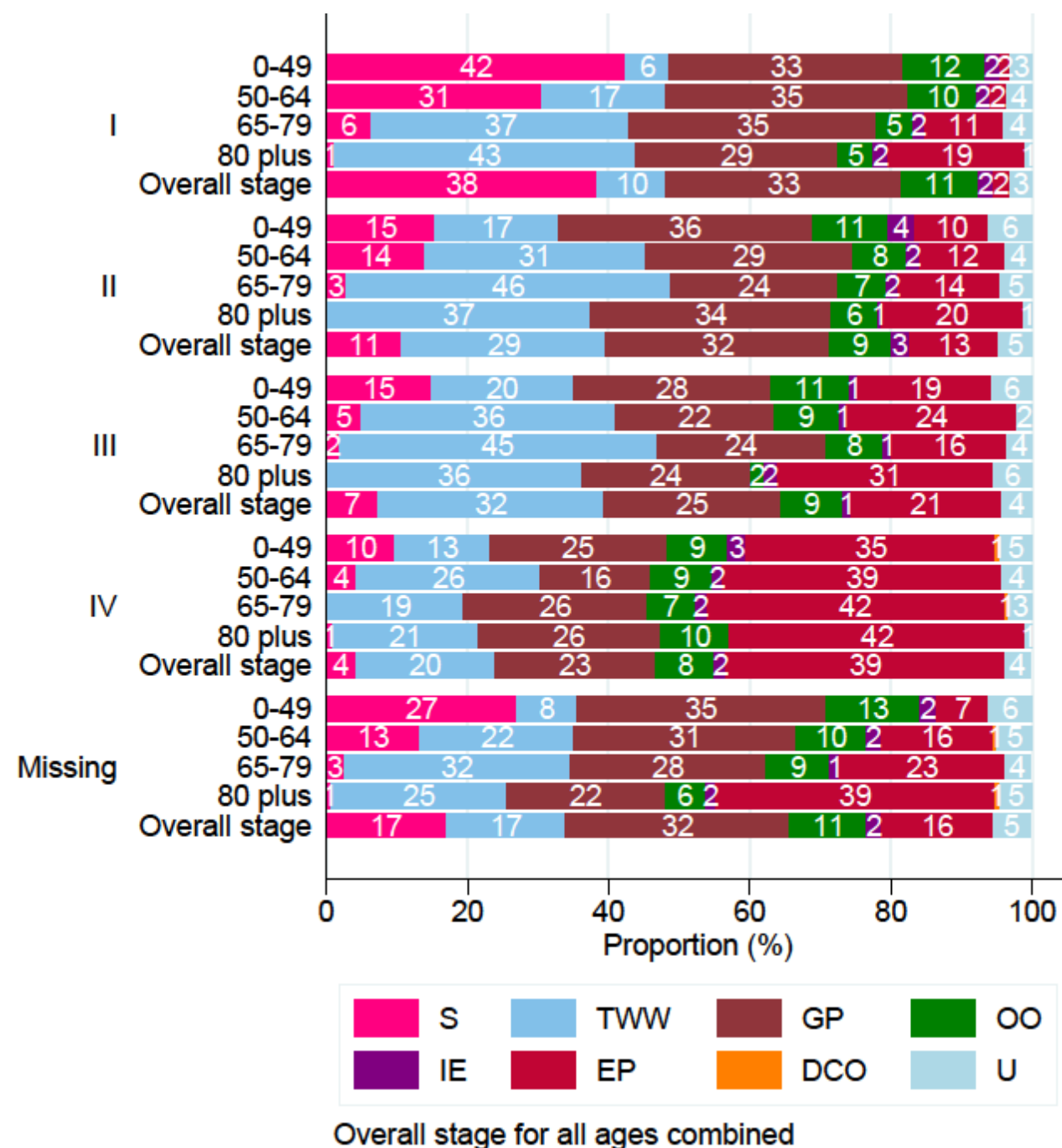
Figure 9: cervical cancer – stacked bar chart of the proportion of cases by RtD, FIGO stage and age, 2006 to 2010 (figures in Appendix Table A. 8)

Incidence by morphology group

'GP referral' was the most common route for squamous carcinoma (32%) and adenosquamous (34%) tumours (Figure 10 and Appendix Table A. 9). 'Screen detected' and 'GP referral' were the most common routes for adenocarcinoma (28% and 31% respectively).

The 'screen detected' proportion of squamous carcinomas (25%) was lower but not significantly lower than for adenocarcinomas (28%) and was similar to the national average. This somewhat contradicts suggestions that Papanicolaou (Pap) testing is less likely to identify adenocarcinomas compared to squamous carcinomas[20], however, within the english cervical screening programme in 2008, liquid based-cytology has replaced Pap tests, hence, these results may reflect a change in the type of cervical cancers detected by screening since this change of process. Screening data issues were reported for the previous iteration of the RtD 2006 to 2008. Although, these were largely amended for the 2006 to 2010 iteration, it may be possible that some coding issues still persist with the screening data.

Unclassified epithelial (34%) and other tumour types (32%) were most commonly detected through 'emergency presentation'. These tumour types were more common in older age-groups[3] who may have had later stage disease.

Figure 10: cervical cancer – bar chart with 95% CIs of the proportion of cases by RtD (excluding 'DCO' or 'inpatient elective') and morphology group, 2006 to 2010 (figures in Appendix Table A. 9)

Incidence and survival by deprivation

Nationally, for women living in the least deprived quintile, 'GP referral' (32%) and 'screen detected' (27%) were the 2 most common routes. For 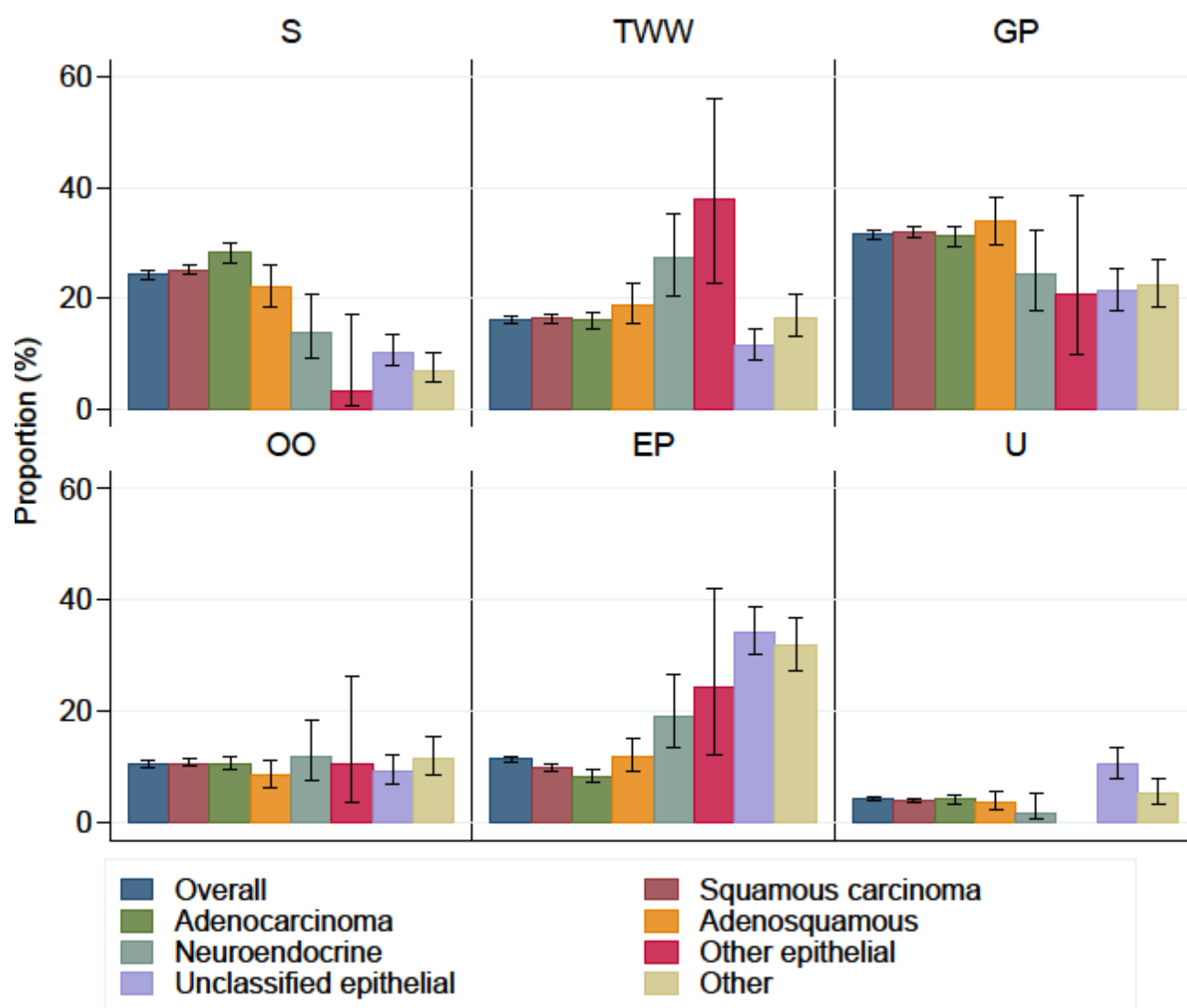women living in all other areas, 'GP referral' (31% to 32%) was the most common route followed by 'screen detected' (22% to 25%).

Women living in the most deprived quintile (24%) had a lower proportion of 'screen detected' cases compared to women living in the least deprived quintile (27%). This was similar to another study[21] that found lower screening coverage rates in areas of socio-economic deprivation. With higher smoking rates[12] and possibly higher rates of Human Papilloma Virus[22], women living in more deprived areas may be more at risk of developing cancer and more likely to have been diagnosed through a non-screening route.

Women living in the most deprived quintile had a higher proportion of cases detected through 'emergency presentation' (13%) compared to women living in the 2 least deprived quintiles (7% to 10%). This may reflect the lower uptake of screening in these women leading to more advanced and acute symptoms or higher rates of co-morbidity that may exacerbate cancer symptoms[23] resulting in attendance at 'A&E'.

Women living in the least deprived quintile had a higher proportion of cases detected through the 'unknown' route (6%) compared to women living in the 2 most deprived quintiles. These patients could have attended private healthcare with no CWT or HES recorded activity.

There were small differences in survival for women living in the most and least deprived quintiles. For 24-month and 36-month survival, the widest gaps were in those diagnosed through 'GP referral' (difference 6% to 7%) with the lowest survival found among women living in the most deprived quintile (84% and 81% respectively). This may highlight variations in the timeliness of the diagnosis, access to treatment or number of co-morbidities.

Incidence by ethnicity

For women of white and black ethnicity, 'GP referral' was the most common route accounting for 31% and 42% of cases respectively. For women of Asian, mixed and unknown ethnicity, 'GP referral' was also the most common route, although this was not significantly higher than 'screen detected'.

Women of black and unknown (9%) ethnicities had lower proportions of cases detected through 'TWW' compared to the national average (16%). This may indicate differences in referral practice in areas where a high proportion of the population are of black ethnicity. It may also be possible that women of black ethnicity were generally younger as 'TWW' proportions were much more common in older age-groups (incidence and survival by age section).

Bang et al[21] reported that screening coverage rates were significantly lower in areas where the population was made up of a higher percentage of non-Caucasian women, therefore, we may expect lower rates of 'screen detected' cervical cancer in the non-white ethnicities, however, according to the RtD results, there were no significant differences between ethnic groups in the proportion of 'screen detected' cases but, this may be due to the small number of cases in each ethnicity group.

Incidence by geography

Strategic clinical network (SCN)

For Wessex (N60, 38%), 'screen detected' was most common and was higher than the national average (Figure 11). By diagnosis year, the 'screen detected' proportion for Wessex varied from 31% (2008) to 47% (2007). The proportion of 'screen detected' cases was particularly low for South East Coast (N58, 6%), however, by diagnosis year, the proportion increased from 0% in 2007 to 16% in 2010. The 'screen detected' proportion was also lower than the national average for East of England (N54) and London (N61). For South East Coast, low screening may be specific to cervical cancer as the proportion of breast cancer cases detected through screening was similar to the national average (28%).

Low proportions of 'screen detected' cases may in particular reflect issues with data on screening status reaching the National Cancer Registration Service (NCRS). It may also reflect poorer up-take of the screening programme due to differences in demography, or non-representation of 'screen detected' cases where they have been diagnosed through private screening. Indeed, South East Coast and London SCN had the highest proportion of cases detected through 'unknown' routes (9% to 10% vs 4% nationally), so this may reflect higher prevalence of the use of private care.

'GP referral' was the most common route for:
- South East Coast (N58, 38%)
- West Midlands (N56, 37%)
- East of England (N54, 34%)
- London (N61, 33%)
- South West (N57, 33%)
- East Midlands (N55, 31%)

Proportions for the first 2 SCNs listed were higher than the national average (Figure 11).
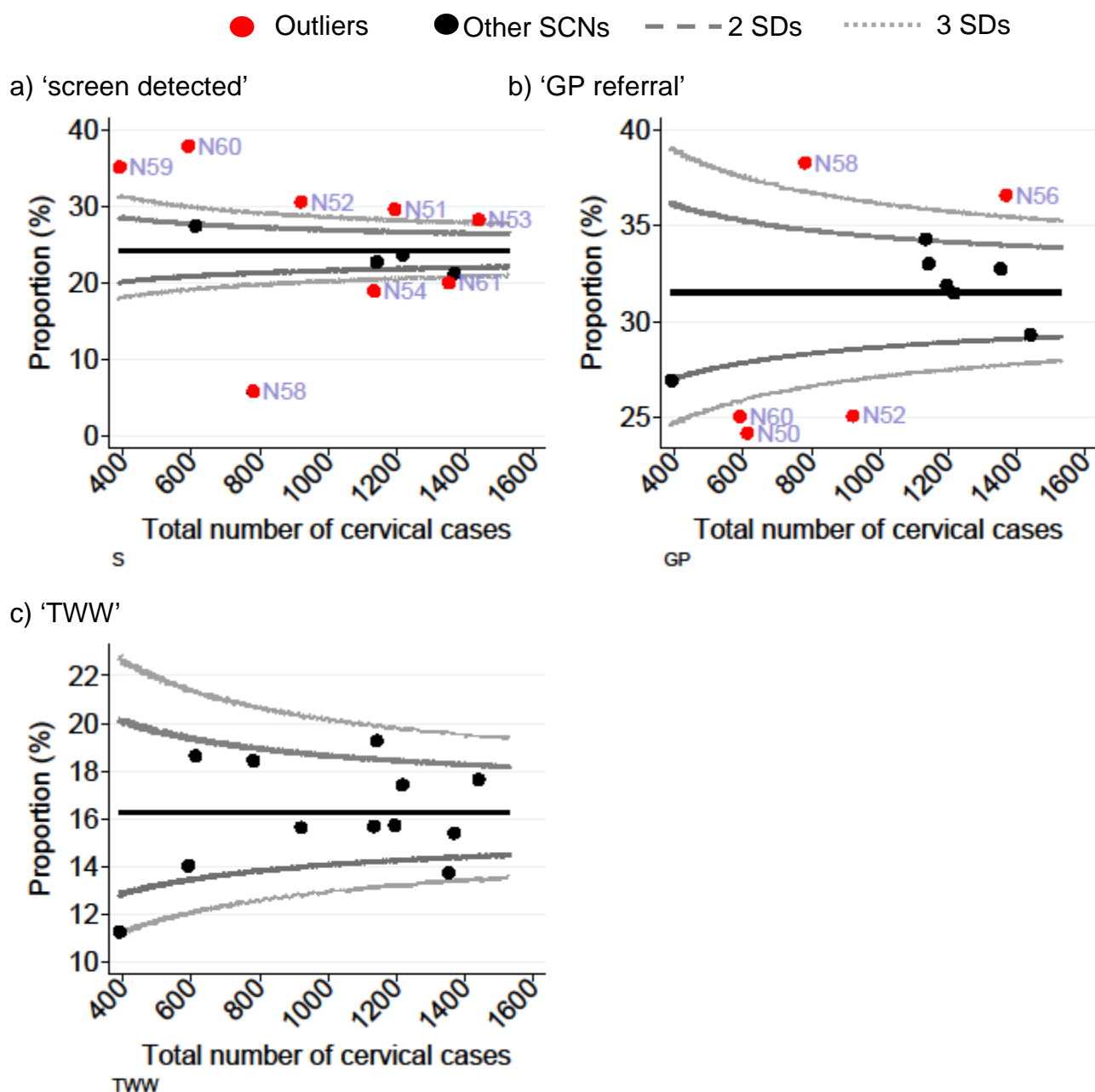
Figure 11: cervical cancer – funnel plot of the proportion of cases by RtD and strategic clinical network, 2006 to 2010, a) 'screen detected', b) 'GP referral' and c) 'TWW' (figures available in RtD workbook)

Area teams (AT)

Screen detected was the most common route for:
- Wessex (Q70, 38%)
- Bristol, North Somerset, Somerset and South Gloucestershire (Q65, 33%)
- Cumbria, Northumberland, Tyne and Wear (Q49, 32%) (Appendix Table A. 10)

These 3 ATs along with Thames Valley (Q69), West Yorkshire (Q52) and Greater Manchester (Q46) had higher proportions of 'screen detected' cases compared to the national average (Figure 12). By diagnosis year, trends in the proportion of 'screen detected' cases varied considerably. For instance, from 2006 to 2010, the proportion increased for West Yorkshire from 19% to 47% but decreased for Thames from 44% to 33%. Kent and Medway (Q67) and Surrey and Sussex (Q68) ATs both had particularly low proportions of 'screen detected' cases at 6%, these results potentially relate to data transferring issues where screening status may not have reached the NCRS. Screening data was only available from 2009 for Kent and Medway and from 2006 for Surrey and Sussex, annual proportions increased from these years onwards. These 2 areas fall in the South East Coast SCN which, compared to other SCNs, had the lowest proportion of 'screen detected' cases.

'GP referral' was the most common route for:
- Bath, Gloucestershire, Swindon and Wiltshire (Q64, 45%)
- Birmingham and the Black Country (Q54, 42%)
- Hertfordshire and the South Midlands (Q58), Kent and Medway (Q67), Lancashire (Q47) (39%)
- Surrey and Sussex (Q68, 38%)
- Derbyshire and Nottinghamshire (Q55, 34%)
- London (Q71, 33%)
- Shropshire and Staffordshire (Q60, 33%)
- Essex (Q57, 31%)

The proportion of 'GP referrals' was higher than the national average for the first 2 ATs listed, Hertfordshire and the South Midlands and Lancashire (Figure 12). Again, variation may be due to differences in demographics, referral-, coding- or reporting practices therefore, care must be taken with interpretation.
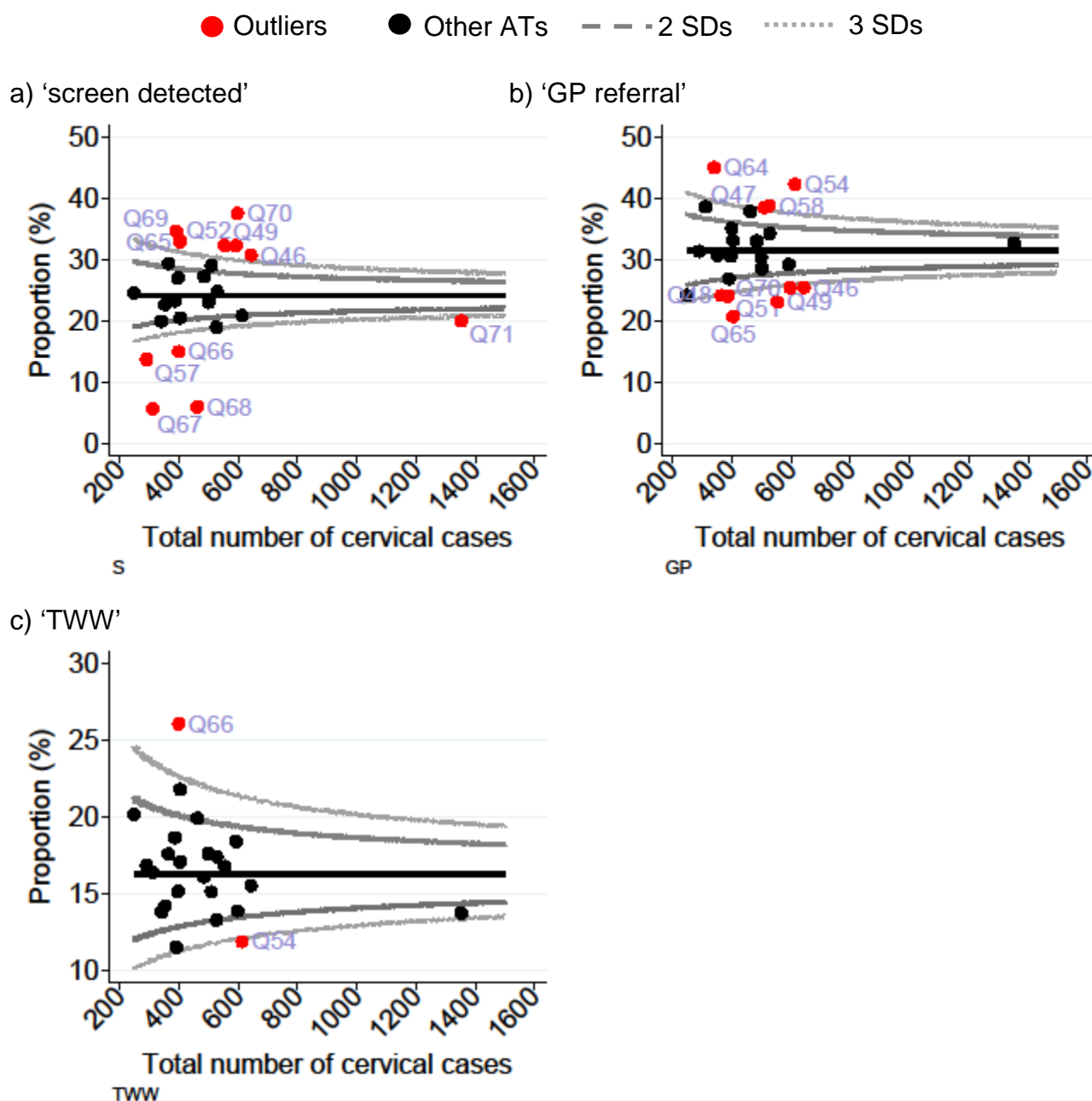
Figure 12: cervical cancer – funnel plot of the proportion of cases by RtD and area team, 2006 to 2010, a) 'screen detected', b) 'GP referral' and c) 'TWW' (figures in Appendix Table A. 10)

Vulval cancer

Due to the rarity of the site, some of the following proportions are based on small numbers, for this detail please refer to tables from either the RtD workbook or Appendix.

Incidence and survival by age

For women under 60 and aged 70 to 79, 'GP referral' was the most common route followed by 'TWW' and/or 'other outpatient'. For women aged 60 to 69 and aged 80 and over, 'TWW' and 'GP referral' were the most common routes. Compared to younger age-groups, the proportion of 'emergency presentations' was higher for women aged 85 and over accounting for 14% of cases.

The proportion of cases detected through 'other outpatient' was higher for women under 50 (19%) compared to women aged 60 and over (8% to 13%). Younger women may have been treated as outpatients for other gynaecological issues which resulted in a diagnosis of vulval cancer.

Comparing women aged under 65 and 85 and over, the widest gaps in survival were found for those detected by:
- 'emergency presentation':
  - 6-month – 0 to 64 85%, 85+ 38%, 47% difference
  - 12-month – 0 to 64 69%, 85+ 26%, 43% difference
- 'other outpatient': 24-month – 0 to 64 92%, 85+ 50%, 42% difference
- 'unknown' route: 36-month – 0 to 64 88%, 85+ 22%, 66% difference

Incidence, emergency route by age

Overall, 7% of vulval cancers (n=341) were diagnosed through 'emergency presentation' in 2006 to 2010.

The most common emergency route for vulval cancers diagnosed in women aged 70 and over was 'A&E' accounting for 63% to 67% of 'emergency presentations'. Women under 50 (44%) had a higher proportion of 'emergency presentations' detected through the 'outpatient emergency' route compared to women aged 70 to 79 (13%) and aged 85 and over (10%).

44

Incidence by stage and age

For stage I cancer, cases found in women under 50 were most commonly detected through 'GP referral' (55%) (Figure 13 and Appendix Table A. 11). As this cancer is less common among this age-group[24], GPs may have been less inclined to fast-track younger women with vulval cancer symptoms through the more urgent 'TWW' route. For women aged 50 to 64, stage I cases were most commonly found by 'GP referral' (42%), 'TWW' (31%) and 'other outpatient' (19%). For women aged 65 and over with stage I cancer, 'GP referral' and 'TWW' were the most common routes.

For stage II cancer, cases found in women under 50 were most commonly found through 'GP referral' (47%), however, this was not significantly higher than 'TWW' (30%). Stage II cases found in women aged 65 to 79 were most commonly found through 'TWW' (45%) and 'GP referral' (42%). For women aged 80 and over, the most common route was 'TWW' (50%).

For stage III cancer diagnosed in women aged 50 to 64, 'TWW' (38%) and 'GP referral' (31%) were the most common routes however, these proportions were not significantly higher than 'other outpatient' (16%). For women aged 65 and over with stage III cancer, the most common route was 'TWW' (59%) followed by 'GP referral' (25%).

For stage IV cancer among women aged 65 to 79, 'TWW' (47%) was the most common route, although this was not significantly higher than 'GP referral' (23%).

For women under 65 with missing stage, 'GP referral' was the most common route, while for women aged 65 and over, 'TWW' and 'GP referral' were the most common routes. The proportion of women aged 80 and over with missing stage that were detected through 'emergency presentation' (15%) was higher compared to younger age-groups (6% to 7%).

45

Overall stage for all ages combined
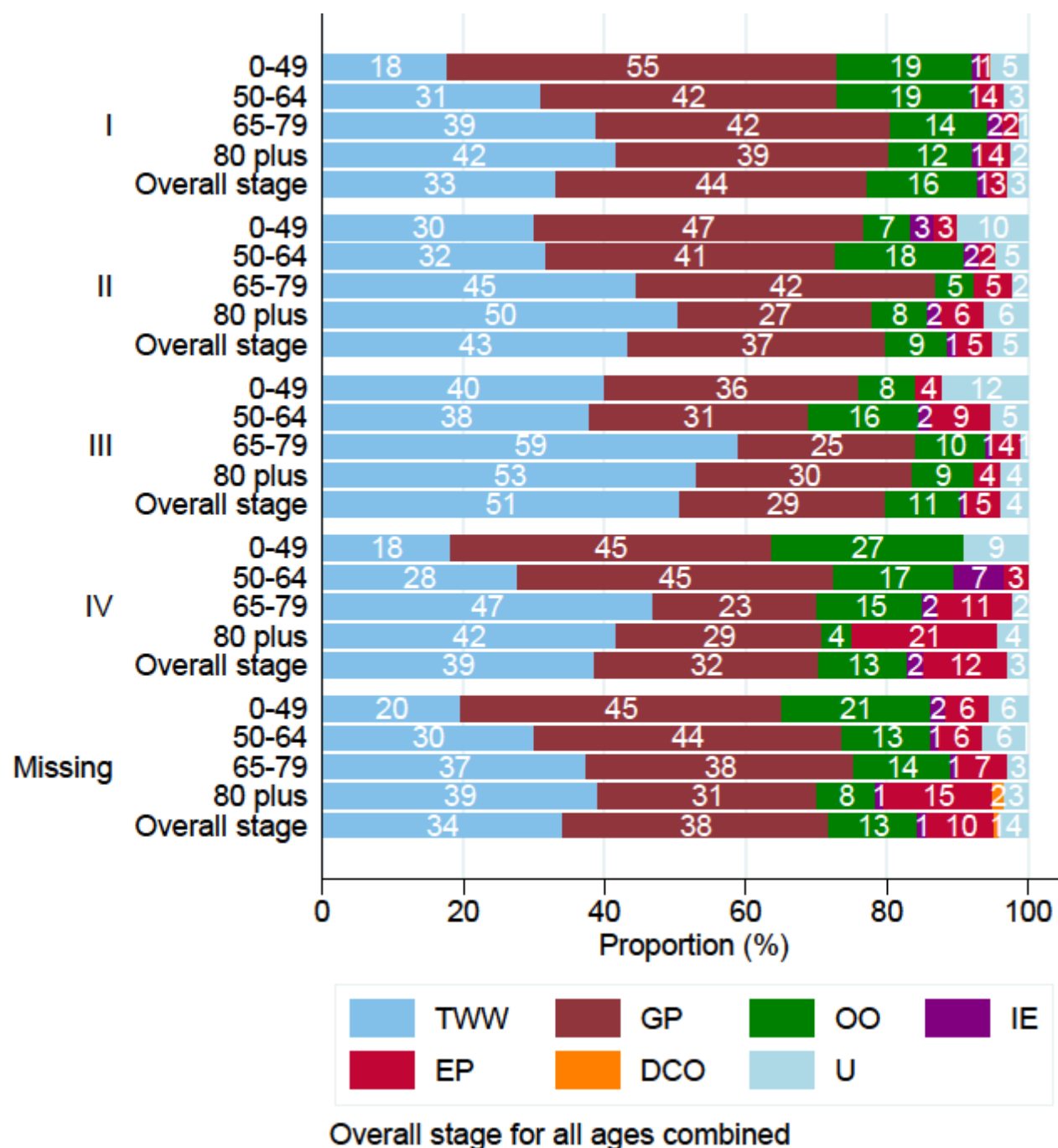
Figure 13: vulval cancer – stacked bar chart of the proportion of cases by RtD, stage and age, 2006 to 2010 (figures in Appendix Table A. 11)

Incidence by morphology group

'GP referral' was the most common route for squamous carcinoma (40%), adenocarcinoma (63%) and miscellaneous tumours (36%) (Figure 14 and Appendix Table A. 12). 'TWW' was the most common route for melanocytic tumours (47%) followed by 'GP referral' (33%). Though not significantly higher than 'GP referral' (27%), Other classified and unclassified epithelial tumours were most commonly found through 'emergency presentation' (34%).
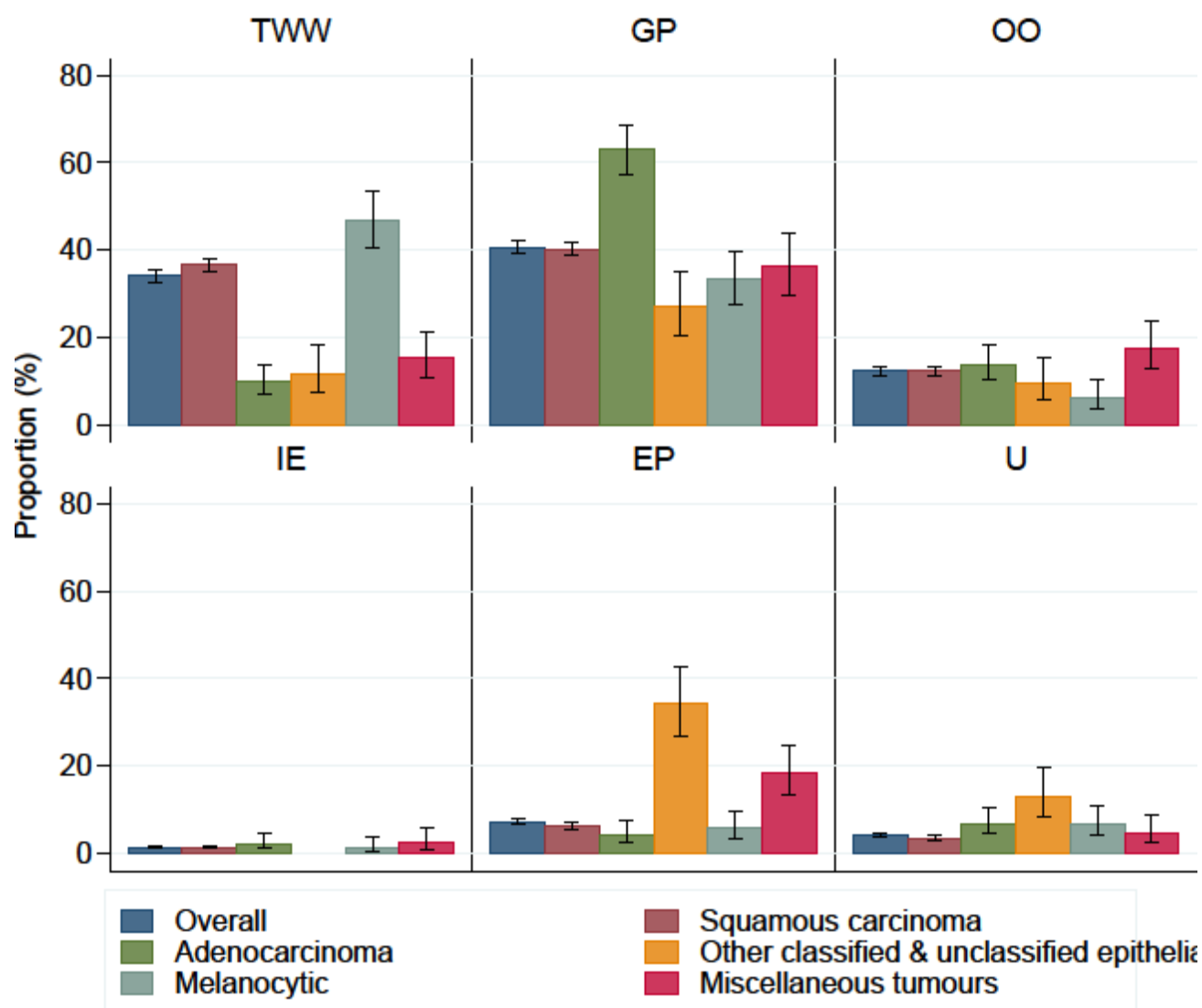

Figure 14: vulval cancer – bar chart with 95% CIs of the proportion of cases by RtD (excluding 'DCO') and morphology group, 2006 to 2010 (figures in Appendix A. 12)

Incidence and survival by deprivation

For women living in the least deprived and second least deprived quintiles nationally, 'GP referral' was the most common route (41% to 42%). For the 3 most deprived areas, 'TWW' and 'GP referral' were the most common routes. Women living in the 3 most deprived quintiles had higher proportions of cases found through 'emergency presentation' (8% to 9%) compared to the least deprived quintile (4%). This may reflect a higher prevalence of co-morbidity leading to more severe symptoms[23] that prompt them to attend 'A&E' or more advanced disease in women living in more deprived areas due to poorer symptom awareness.

There were no significant differences in survival between the least and most deprived areas by route.

Incidence by ethnicity

'GP referral' was the most common route for women of white (41%) and black (60%) ethnicity. Though not significantly higher than 'TWW' (27%), 'GP referral' (45%) was the most common route for women of Asian ethnicity. For women of unknown ethnicity, 'TWW', 'GP referral' and 'unknown' were the 3 most common routes.

Incidence by geography (SCN only)

'GP referral' was the most common route for Greater Manchester, Lancashire and South Cumbria (N51, 44%) and West Midlands (N56, 44%). For all other SCNs, proportions for 'TWW' and 'GP referral' were similar. Compared to the national average (7%), London SCN had a higher proportion of cases detected through 'emergency presentation' (N61, 12%).

Vaginal cancer summary

'GP referral' was the most common route for women under 70 accounting for 41% to 48% of cases. For women aged 70 to 79, 'TWW' (33%) and 'GP referral' (37%) were the two most common routes. For women aged 80 to 84, though not significantly higher than 'TWW' (26%), 'GP referral' (43%) was the most common route. 'TWW', 'GP referral' and 'emergency presentation' were the most common routes for women aged 85 and over. Women under 50 (9%) had lower proportions of cases detected through 'TWW' compared to older age-groups (24% to 33%). Incidentally, women under 50 had the highest proportion of cases found through 'GP referral' (48%).

Squamous carcinomas and adenocarcinomas were most commonly detected through 'GP referral' (37% and 49% respectively) (Appendix Table A. 13). Melanocytic tumours were most commonly detected through 'TWW' (44%) and 'GP referral' (38%).

For the least deprived and second least deprived quintiles, the most common routes were 'TWW' (29% to 31%) and 'GP referral' (35% to 37%). For the 3 most deprived quintiles, the most common route was 'GP referral' (39% to 44%).

References

1.   National Cancer Intelligence Network (NCIN). Overview of Ovarian Cancer in England, Incidence, Mortality and Survival. 2012.

2.   Public Health England (PHE). Outline of Uterine Cancer in the United Kingdom: Incidence, Mortality and Survival. 2013.

3.   National Cancer Intelligence Network (NCIN). Profile of Cervical Cancer in England. 2012.

4.   National Institute for Health and Care Excellence (NICE). Ovarian Cancer: The recognition and initial management of ovarian cancer. 2011. Available from: www.nice.org.uk/guidance/cg122/resources/guidance-ovarian-cancer-pdf

5.   Forbes LJL, Simon AE, Warburton F, Boniface D, Brain KE, Dessaix A, et al. Differences in cancer awareness and beliefs between Australia, Canada, Denmark, Norway, Sweden and the UK (the International Cancer Benchmarking Partnership): do they contribute to differences in cancer survival? Br J Cancer. 2013;108(2):292–300.

6.   Tate AR, Nicholson A, Cassell JA. Are GPs under-investigating older patients presenting with symptoms of ovarian cancer? Observational study using General Practice Research Database. Br J Cancer. 2010;102(6):947–51.

7.   Fortin M, Bravo G, Hudon C, Vanasse A, Lapointe L. Prevalence of Multimorbidity Among Adults Seen in Family Practice. 2005;223–8.

8.   National Cancer Intelligence Network (NCIN). Routes to Diagnosis: Exploring Emergency Presentations. 2013.

9.   Lyratzopoulos G, Neal R, Barbiere J, Rubin G, Abel G. Variation in number of general practitioner consultations before hospital referral for cancer: findings from the 2010 National Cancer Patient Experience Survey in England. Lancet Oncol. 2012;13(4):353–65.

10. Macmillan. Grading and staging of ovarian cancer [Internet]. 2013 [cited 2014 Jun 5]. Available from: www.macmillan.org.uk/Cancerinformation/Cancertypes/Ovary/Symptomsdiagnosis/Gradingandstaging.aspx

11. Robb K, Stubbings S, Ramirez A, Macleod U, Austoker J, Waller J, et al. Public awareness of cancer in Britain: a population-based survey of adults. Br J Cancer. 2009;101 Suppl(S2):S18–23.

12. Office of National Statistics (ONS). Do smoking rates vary between more and less advantaged areas? [Internet]. 2014 [cited 2014 May 30]. Available from:

www.ons.gov.uk/ons/rel/disability-and-health-measurement/do-smoking-rates-vary-between-more-and-less-advantaged-areas-/2012/sty-smoking-rates.html

13. Jordan S, Whiteman D, Purdle D, Green A, Webb P. Does smoking increase risk of ovarian cancer? A systematic review. Gynecol Oncol. 2006;103(3):1122–9.

14. Cancer Research UK (CRUK). Womb cancer symptoms [Internet]. 2014 [cited 2014 Jun 5]. Available from: www.cancerresearchuk.org/cancer-help/type/womb-cancer/about/womb-cancer-symptoms

15. National Institute of Health and Care Excellence (NICE). Referral guidelines for suspected cancer. London; 2005.

16. Felix AS, Weissfeld J, Stone RA, Bowser R, Chivukula M, Edwards R, et al. Factors associated with Type I and Type II endometrioid cancer. Cancer Causes Control. 2010;21(11):1851–6.

17. Health and Social Care Information Centre. HSE 2011: Vol. 1 |Chapter 10: Adult anthropomorphic measures. Overweight and obesity. 2012.

18. Lyratzopoulos G, Abel GA, Brown CH, Rous BA, Vernon SA, Roland M, et al. Socio-demographic inequalities in stage of cancer diagnosis: evidence from patients with female breast, lung, colon, rectal, prostate, renal, bladder, melanoma, ovarian and endometrial cancer. Ann Oncol. 2013;24(3):843–50.

19. National Health Service (NHS). When cervical screening is offered [Internet]. 2013 [cited 2014 Jun 17]. Available from: www.nhs.uk/Conditions/Cervical-screening-test/Pages/When-should-it-be-done.aspx

20. Zhao L, Wentzensen N, Zhang R, Dunn S, Gold M, Wang S, et al. Factors associated with reduced accuracy in Papanicolaou tests for patients with invasive cervical cancer. Cancer Cytopathol. 2014.

21. Bang JY, Yadegarfar G, Soljak M, Majeed A. Primary care factors associated with cervical screening coverage in England. J Public Health. 2012;34(4):532–8.

22. Sonnenberg P, Clifton S, Beddows S, Field N, Soldan K, Tanton C, et al. Prevalence, risk factors, and uptake of interventions for sexually transmitted infections in Britain: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal). Lancet. 2013;382(9907):1795–806.

23. Droomers M, Westert GP. Do lower socioeconomic groups use more health services, because they suffer from more illnesses? Eur J Public Health. 2004;14(3):311–3.

24. Lai J, Elleray R, Nordin A, Hirschowitz L, Rous B, Gildea C, et al. Vulval cancer incidence, mortality and survival in England: age-related trends. Br J Obs Gynaecol. 2013;121(6):728–38.

Appendix

Issues concerning data or definitions of cancer

Miscoded invasive cervical cancers

A number of cases (n=87) coded as C53 (cervical cancer) were incorrectly classified as invasive cancers. These were corrected in the cancer registry data but were still included in the NCDR 2010 and subsequently also included in the analysis in the RtD workbook, therefore, for consistency, these cases have also been included in the additional analyses conducted for this report. This may be why other published figures differ from those presented here.

Borderline ovarian cases

There are a number (n=523) of borderline ovarian tumours coded under ICD-O-3 in the ONS dataset as non-invasive, ovarian epithelial tumours of uncertain behaviour. These were not recoded as invasive cancer under ICD-O-2 for the site variable (site4icd10recoded) which was used to define incidence. Consequently, these cases were excluded from the ovarian cancer results reported in the RtD workbook. For consistency, these cases have not been included in any additional analyses conducted for this report.

Inclusion of sarcomas in uterine cancer analysis

The definition of uterine cancer as used by the RtD team was based on the site code only and not morphology, and therefore includes sarcomas. This definition has been used throughout the report including additional analyses (stage and age, morphology, area team) not included in the workbook. In other work, the definition of uterine cancer may exclude sarcomas due to differences in the characteristics (epidemiology, diagnosis, staging, prognosis and as shown in this report, route to diagnosis) of this morphology type compared to other types of uterine cancer.

Geography

Table A. 1: SCN codes and names

SCN code	SCN name
N51	Greater Manchester Lancashire and South Cumbria
N50	Cheshire and Merseyside
N52	North East Cumbria and North Yorkshire
N55	East Midlands
N53	Yorkshire and The Humber
N56	West Midlands
N61	London
N54	East of England
N58	South East Coast
N59	Thames Valley
N60	Wessex
N57	South West

Map of Strategic Clinical Networks

Figure A. 1: map of strategic clinical networks

Map of Area Teams

Figure A. 2: map of area teams

Tables for ovarian cancer

Table A. 2: ovarian cancer – proportion of cases and 95% CIs by RtD, stage and age, 2006 to 2010

		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
I	0 to 49	22%		37%		16%		3%		17%				4%		1,290
	CI	20%	25%	35%	40%	15%	19%	2%	4%	15%	19%			3%	5%	
	50 to 64	38%		32%		15%		2%		9%				4%		1,503
	CI	35%	40%	29%	34%	13%	17%	2%	3%	8%	11%			3%	5%	
	65 to 79	39%		33%		15%		1%		8%				4%		1,079
	CI	37%	42%	30%	36%	13%	17%	1%	2%	7%	10%			3%	5%	
	80 plus	32%		38%		17%		1%		11%				2%		320
	CI	27%	37%	33%	43%	13%	21%	0%	3%	8%	15%			1%	4%	
	Overall	33%		34%		16%		2%		12%				4%		4,192
	CI	31%	34%	33%	36%	14%	17%	2%	3%	11%	13%			3%	4%	
II	0 to 49	20%		37%		16%		3%		15%				9%		185
	CI	15%	26%	31%	44%	11%	22%	1%	7%	11%	21%			5%	14%	
	50 to 64	34%		32%		16%		2%		13%				3%		359
	CI	29%	39%	27%	37%	12%	20%	1%	4%	10%	17%			2%	5%	
	65 to 79	33%		29%		17%		3%		14%				4%		342
	CI	28%	38%	25%	34%	13%	21%	2%	5%	11%	18%			2%	7%	
	80 plus	37%		35%		11%		1%		15%				2%		95
	CI	28%	47%	26%	45%	6%	18%	0%	6%	9%	23%			1%	7%	
	Overall	31%		32%		16%		2%		14%				4%		981
	CI	28%	34%	29%	35%	14%	18%	2%	4%	12%	16%			3%	6%	
III	0 to 49	22%		25%		16%		3%		29%				5%		634
	CI	19%	26%	22%	28%	14%	19%	2%	4%	26%	33%			4%	7%	
	50 to 64	32%		23%		12%		2%		26%				5%		1,955
	CI	30%	34%	21%	25%	10%	13%	1%	3%	24%	28%			4%	6%	
	65 to 79	30%		22%		12%		2%		31%				3%		2,232
	CI	28%	32%	20%	24%	10%	13%	1%	2%	29%	33%			2%	4%	
	80 plus	24%		22%		9%		1%		41%				3%		674
	CI	21%	27%	19%	25%	7%	11%	1%	3%	37%	45%			2%	5%	
	Overall	29%		23%		12%		2%		30%				4%		5,495
	CI	28%	30%	22%	24%	11%	13%	2%	2%	29%	32%			4%	5%	
IV	0 to 49	17%		20%		12%		2%		44%				6%		189
	CI	12%	23%	15%	26%	8%	17%	1%	5%	37%	51%			3%	10%	
	50 to 64	26%		19%		10%		2%		39%				4%		639
	CI	23%	30%	17%	23%	8%	12%	1%	3%	35%	43%			3%	6%	
	65 to 79	23%		20%		8%		3%		43%				4%		855
	CI	20%	26%	17%	23%	6%	10%	2%	4%	39%	46%			3%	5%	
	80 plus	14%		19%		6%		2%		56%				2%		388
	CI	11%	18%	16%	24%	4%	9%	1%	4%	51%	61%			1%	4%	
	Overall	22%		20%		8%		2%		44%				4%		2,071
	CI	20%	24%	18%	21%	7%	10%	2%	3%	42%	46%			3%	5%	
Missing	0 to 49	17%		35%		16%		5%		22%		0%		5%		2,572
	CI	15%	18%	33%	37%	15%	17%	4%	6%	21%	24%	0%	0%	5%	6%	
	50 to 64	25%		26%		16%		2%		25%		0%		5%		4,082
	CI	23%	26%	25%	28%	14%	17%	2%	3%	24%	27%	0%	1%	5%	6%	
	65 to 79	23%		22%		12%		2%		36%		1%		4%		5,264
	CI	21%	24%	21%	23%	11%	13%	1%	2%	35%	38%	1%	1%	4%	5%	
	80 plus	11%		17%		8%		1%		56%		3%		4%		3,612
	CI	10%	12%	16%	18%	7%	8%	1%	2%	54%	58%	2%	4%	4%	5%	
	Overall	20%		24%		13%		2%		36%		1%		5%		15,530
	CI	19%	20%	23%	25%	12%	13%	2%	3%	35%	36%	1%	1%	4%	5%	

Table A. 3: ovarian cancer – proportion of cases and 95% CIs by RtD and morphology group, 2006 to 2010

Morphology group	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Serous carcinoma	31%		23%		14%		2%		26%				4%		8,534
CI	30%	32%	22%	24%	13%	15%	2%	3%	25%	27%			4%	5%	
Mucinous carcinoma	32%		25%		15%		2%		21%				4%		1,641
CI	30%	34%	23%	27%	13%	16%	2%	3%	19%	23%			3%	5%	
Endometrioid carcinoma	36%		27%		15%		3%		14%				5%		1,594
CI	34%	39%	25%	29%	13%	17%	2%	3%	13%	16%			4%	6%	
Clear cell carcinoma	35%		26%		16%		3%		16%				5%		1,147
CI	33%	38%	23%	28%	14%	18%	2%	4%	14%	18%			4%	7%	
Other classified epithelial and epithelial-stromal	28%		27%		13%		3%		25%		0%		4%		1,029
CI	25%	30%	25%	30%	11%	16%	2%	4%	22%	28%	0%	1%	3%	5%	
Unclassified epithelial	16%		19%		9%		1%		49%		1%		5%		7,924
CI	15%	17%	18%	20%	8%	10%	1%	2%	48%	50%	1%	1%	4%	5%	
Borderline epithelial tumours	21%		45%		16%		3%		11%				3%		3,438
CI	20%	22%	44%	47%	15%	18%	3%	4%	10%	12%			3%	4%	
Sex cord-stromal or germ cell tumours	17%		34%		16%		4%		25%				3%		689
CI	14%	20%	31%	38%	14%	19%	3%	6%	21%	28%			2%	5%	
Miscellaneous and unspecified	11%		20%		11%		2%		49%		4%		4%		2,245
CI	10%	12%	19%	22%	9%	12%	1%	2%	47%	51%	3%	5%	3%	5%	

Table A. 4: ovarian cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010

Area team name (code)	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Arden, Herefordshire and Worcestershire (Q53)	20%		26%		15%		2%		31%		0%		6%		984
CI	*17%*	*22%*	*23%*	*28%*	*13%*	*18%*	*2%*	*3%*	*28%*	*34%*	*0%*	*1%*	*4%*	*7%*	
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	22%		28%		11%		4%		31%		1%		4%		785
CI	*19%*	*25%*	*25%*	*31%*	*9%*	*14%*	*3%*	*5%*	*28%*	*34%*	*1%*	*2%*	*3%*	*6%*	
Birmingham and the Black Country (Q54)	20%		31%		15%		1%		30%		1%		3%		1,274
CI	*18%*	*22%*	*28%*	*33%*	*13%*	*17%*	*1%*	*2%*	*28%*	*33%*	*0%*	*1%*	*2%*	*4%*	
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	26%		21%		14%		4%		31%		0%		3%		889
CI	*23%*	*29%*	*19%*	*24%*	*12%*	*16%*	*3%*	*5%*	*28%*	*34%*	*0%*	*1%*	*2%*	*5%*	
Cheshire, Warrington and Wirral (Q44)	26%		23%		11%		3%		33%		0%		3%		672
CI	*23%*	*30%*	*20%*	*26%*	*9%*	*14%*	*2%*	*4%*	*30%*	*37%*	*0%*	*1%*	*2%*	*5%*	
Cumbria, Northumberland, Tyne and Wear (Q49)	25%		27%		15%		1%		28%		1%		2%		1,085
CI	*23%*	*28%*	*24%*	*30%*	*13%*	*17%*	*1%*	*2%*	*26%*	*31%*	*0%*	*1%*	*2%*	*3%*	
Derbyshire and Nottinghamshire (Q55)	28%		26%		13%		2%		28%		0%		2%		1,122
CI	*25%*	*30%*	*23%*	*28%*	*11%*	*15%*	*2%*	*3%*	*26%*	*31%*	*0%*	*1%*	*2%*	*4%*	
Devon, Cornwall and Isles of Scilly (Q66)	31%		21%		10%		2%		32%		1%		3%		1,265
CI	*29%*	*34%*	*19%*	*24%*	*8%*	*12%*	*1%*	*2%*	*30%*	*35%*	*1%*	*2%*	*2%*	*4%*	
Durham, Darlington and Tees (Q45)	25%		32%		11%		1%		30%		0%		1%		637
CI	*22%*	*28%*	*28%*	*36%*	*9%*	*13%*	*1%*	*2%*	*26%*	*33%*	*0%*	*1%*	*1%*	*2%*	
E Anglia (Q56)	28%		27%		9%		1%		31%				4%		1,478
CI	*26%*	*31%*	*24%*	*29%*	*7%*	*10%*	*1%*	*2%*	*29%*	*34%*			*3%*	*5%*	
Essex (Q57)	23%		30%		11%		1%		28%				6%		962
CI	*20%*	*26%*	*27%*	*33%*	*10%*	*14%*	*1%*	*2%*	*26%*	*31%*			*5%*	*7%*	
Greater Manchester (Q46)	20%		31%		17%		2%		27%		1%		3%		1,398
CI	*18%*	*22%*	*29%*	*34%*	*15%*	*19%*	*1%*	*3%*	*25%*	*30%*	*0%*	*1%*	*2%*	*4%*	

Table A. 4 continued: ovarian cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010

Area team name (code)	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Hertfordshire and the S Midlands (Q58)	22%		27%		12%		5%		29%		0%		6%		1,376
CI	20%	24%	24%	29%	10%	14%	4%	6%	26%	31%	0%	1%	5%	7%	
Kent and Medway (Q67)	25%		21%		13%		3%		31%		1%		6%		862
CI	22%	28%	18%	24%	11%	16%	2%	4%	28%	34%	1%	2%	5%	8%	
Lancashire (Q47)	20%		28%		14%		3%		31%		1%		2%		860
CI	18%	23%	25%	31%	12%	17%	2%	5%	28%	34%	0%	2%	1%	3%	
Leicestershire and Lincolnshire (Q59)	28%		23%		11%		1%		33%		0%		3%		1,049
CI	26%	31%	21%	26%	10%	14%	1%	2%	30%	35%	0%	1%	2%	5%	
London (Q71)	19%		24%		16%		2%		31%		1%		7%		2,895
CI	17%	20%	23%	26%	15%	17%	1%	2%	29%	33%	1%	2%	6%	8%	
Merseyside (Q48)	22%		20%		20%		4%		31%		0%		3%		691
CI	19%	26%	17%	23%	17%	23%	3%	6%	27%	34%	0%	1%	2%	4%	
N Yorkshire and Humber (Q50)	34%		24%		5%		2%		31%		1%		3%		884
CI	31%	37%	22%	27%	4%	7%	1%	3%	28%	34%	0%	1%	2%	4%	
Shropshire and Staffordshire (Q60)	26%		25%		11%		2%		33%		0%		4%		1,038
CI	23%	29%	22%	27%	9%	13%	1%	2%	30%	36%	0%	1%	3%	5%	
S Yorkshire and Bassetlaw (Q51)	23%		29%		16%		1%		29%				2%		832
CI	20%	26%	26%	32%	13%	18%	1%	2%	26%	32%			2%	4%	
Surrey and Sussex (Q68)	21%		22%		10%		2%		35%		1%		8%		1,420
CI	19%	23%	20%	24%	9%	12%	1%	2%	33%	38%	1%	2%	7%	10%	
Thames Valley (Q69)	22%		23%		15%		3%		30%		0%		8%		1,031
CI	19%	24%	20%	25%	13%	17%	2%	4%	27%	33%	0%	1%	6%	10%	
Wessex (Q70)	25%		24%		11%		3%		33%		1%		3%		1,727
CI	23%	27%	22%	26%	10%	13%	2%	3%	31%	35%	0%	1%	3%	4%	
W Yorkshire (Q52)	27%		23%		8%		2%		34%		0%		5%		1,053
CI	25%	30%	21%	26%	6%	10%	1%	3%	32%	37%	0%	1%	4%	7%	

59

Tables for uterine cancer

Table A. 5: uterine cancer – proportion of cases and 95% CIs by RtD, stage and age, 2006 to 2010

		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
I	0 to 49	9%		62%		15%		3%		5%				5%		959
	CI	8%	11%	59%	65%	13%	18%	2%	4%	4%	6%			4%	6%	
	50 to 64	42%		42%		8%		1%		2%		0%		4%		6,322
	CI	41%	44%	41%	43%	7%	9%	1%	1%	2%	3%	0%	0%	4%	5%	
	65 to 79	51%		34%		8%		1%		4%				3%		5,919
	CI	50%	52%	33%	35%	7%	8%	1%	1%	3%	4%			3%	3%	
	80 plus	48%		31%		8%		1%		10%				2%		1,368
	CI	45%	51%	28%	33%	7%	9%	1%	2%	9%	12%			1%	3%	
	Overall	44%		39%		8%		1%		4%		0%		4%		14,568
	CI	43%	45%	38%	40%	8%	9%	1%	1%	3%	4%	0%	0%	3%	4%	
II	0 to 49	15%		56%		14%		1%		8%				5%		225
	CI	11%	20%	50%	63%	10%	19%	0%	4%	5%	12%			3%	9%	
	50 to 64	41%		42%		7%		1%		3%				6%		1,169
	CI	38%	44%	39%	45%	6%	9%	1%	2%	2%	4%			5%	7%	
	65 to 79	49%		34%		8%		1%		6%				3%		1,345
	CI	46%	52%	31%	36%	6%	9%	1%	2%	5%	7%			2%	4%	
	80 plus	44%		34%		6%		2%		11%				3%		438
	CI	39%	48%	30%	39%	4%	9%	1%	4%	9%	15%			2%	5%	
	Overall	43%		38%		8%		1%		6%				4%		3,177
	CI	41%	44%	37%	40%	7%	9%	1%	2%	5%	7%			4%	5%	
III	0 to 49	13%		50%		15%		4%		13%				4%		156
	CI	9%	20%	42%	58%	11%	22%	2%	8%	9%	20%			2%	8%	
	50 to 64	41%		35%		9%		2%		7%				6%		917
	CI	38%	44%	32%	38%	8%	11%	2%	3%	6%	9%			4%	7%	
	65 to 79	47%		31%		8%		1%		9%				3%		1,203
	CI	44%	50%	28%	34%	7%	10%	1%	2%	8%	11%			2%	4%	
	80 plus	44%		29%		8%		1%		15%				3%		461
	CI	39%	48%	25%	34%	6%	10%	0%	2%	12%	19%			2%	5%	
	Overall	43%		33%		9%		2%		10%				4%		2,737
	CI	41%	44%	31%	35%	8%	10%	1%	2%	9%	11%			3%	5%	
IV	0 to 49	8%		40%		15%		2%		31%				4%		48
	CI	3%	20%	27%	54%	7%	27%	0%	11%	20%	45%			1%	14%	
	50 to 64	38%		29%		8%		4%		17%				5%		266
	CI	32%	44%	23%	34%	5%	12%	2%	7%	13%	22%			3%	8%	
	65 to 79	41%		27%		10%		2%		16%				4%		386
	CI	36%	46%	23%	32%	8%	14%	1%	4%	12%	19%			2%	6%	
	80 plus	32%		35%		3%		1%		26%				2%		136
	CI	24%	40%	28%	44%	1%	7%	0%	5%	20%	34%			1%	6%	
	Overall	37%		30%		9%		3%		19%				4%		836
	CI	33%	40%	27%	33%	7%	11%	2%	4%	16%	22%			3%	5%	
Missing	0 to 49	10%		53%		17%		4%		11%		0%		6%		884
	CI	8%	12%	49%	56%	14%	19%	3%	5%	9%	13%	0%	1%	5%	8%	
	50 to 64	34%		40%		10%		2%		8%		0%		6%		3,586
	CI	32%	36%	39%	42%	9%	11%	2%	3%	7%	9%	0%	0%	5%	7%	
	65 to 79	39%		32%		10%		1%		13%		1%		4%		3,907
	CI	38%	41%	31%	34%	9%	11%	1%	2%	12%	14%	0%	1%	4%	5%	
	80 plus	26%		27%		9%		1%		29%		3%		5%		2,123
	CI	24%	28%	25%	29%	8%	10%	1%	2%	28%	31%	2%	4%	4%	6%	
	Overall	32%		36%		10%		2%		14%		1%		5%		10,500
	CI	31%	33%	35%	37%	10%	11%	2%	2%	14%	15%	1%	1%	5%	6%	

Table A. 6: uterine cancer – proportion of cases and 95% CIs by RtD and morphology group, 2006 to 2010

Morphology grouping	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Endometrioid Adenocarcinoma	42%		39%		9%		1%		6%		0%		4%		24,770
CI	41%	42%	38%	39%	8%	9%	1%	2%	5%	6%	0%	0%	4%	4%	
Clear cell and papillary serous carcinoma	46%		32%		8%		1%		9%				4%		2,196
CI	44%	48%	30%	34%	7%	9%	1%	2%	8%	10%			3%	5%	
Other and unclassified carcinoma	19%		26%		9%		1%		33%		3%		9%		1,056
CI	17%	21%	24%	29%	8%	11%	1%	2%	30%	36%	2%	4%	7%	11%	
Leiomyosarcoma	18%		40%		14%		3%		18%		0%		7%		594
CI	15%	21%	36%	44%	11%	17%	2%	5%	15%	21%	0%	1%	5%	9%	
Endometrial stromal sarcoma	15%		45%		16%		4%		13%				6%		298
CI	12%	20%	40%	51%	13%	21%	2%	7%	10%	17%			4%	9%	
Miscellaneous sarcoma	20%		31%		10%		3%		30%		0%		6%		210
CI	15%	26%	25%	38%	7%	15%	1%	6%	24%	37%	0%	3%	3%	10%	
Mixed epithelial and mesenchymal	42%		31%		9%		2%		13%				3%		1,925
CI	40%	44%	29%	33%	8%	11%	1%	2%	12%	15%			2%	4%	
Miscellaneous and unspecified	14%		27%		11%		1%		34%		8%		4%		766
CI	12%	17%	24%	31%	9%	13%	1%	3%	31%	38%	6%	10%	3%	6%	

Table A. 7: uterine cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010.

Area team name (code)	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Arden, Herefordshire and Worcestershire (Q53)	31%		44%		12%		2%		7%		0%		5%		1,075
CI	28%	33%	41%	47%	10%	14%	1%	3%	5%	8%	0%	1%	4%	6%	
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	37%		41%		7%		1%		8%		0%		5%		946
CI	34%	40%	38%	44%	6%	9%	1%	2%	7%	10%	0%	1%	3%	6%	
Birmingham and the Black Country (Q54)	38%		40%		10%		1%		8%		0%		3%		1,498
CI	36%	41%	37%	42%	9%	12%	0%	1%	7%	9%	0%	1%	2%	4%	
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	47%		33%		7%		2%		9%		1%		2%		987
CI	44%	50%	30%	36%	6%	9%	1%	2%	7%	11%	0%	1%	1%	3%	
Cheshire, Warrington and Wirral (Q44)	42%		35%		7%		1%		10%		0%		4%		683
CI	38%	46%	32%	39%	5%	9%	1%	2%	8%	13%	0%	1%	3%	6%	
Cumbria, Northumberland, Tyne and Wear (Q49)	47%		32%		11%		1%		7%		0%		2%		1,196
CI	44%	50%	29%	34%	9%	13%	1%	2%	5%	8%	0%	1%	1%	3%	
Derbyshire and Nottinghamshire (Q55)	47%		32%		9%		1%		7%		0%		3%		1,306
CI	44%	50%	30%	35%	8%	11%	1%	2%	6%	9%	0%	0%	2%	4%	
Devon, Cornwall and Isles of Scilly (Q66)	48%		33%		6%		2%		7%		0%		4%		1,357
CI	45%	51%	31%	36%	5%	8%	1%	2%	6%	9%	0%	1%	3%	5%	
Durham, Darlington and Tees (Q45)	39%		40%		9%		0%		9%		1%		2%		688
CI	35%	43%	36%	43%	7%	12%	0%	1%	7%	12%	0%	1%	1%	4%	
E Anglia (Q56)	49%		34%		6%		1%		7%				4%		1,705
CI	46%	51%	32%	36%	5%	7%	0%	1%	6%	8%			3%	5%	
Essex (Q57)	37%		44%		7%		1%		6%				4%		1,067
CI	34%	39%	41%	47%	6%	9%	1%	2%	5%	8%			3%	6%	
Greater Manchester (Q46)	35%		40%		12%		1%		10%		1%		3%		1,502
CI	32%	37%	37%	42%	10%	13%	1%	2%	9%	12%	0%	1%	2%	3%	

Table A. 7 continued: uterine cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010

Area Team Name (code)	'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Hertfordshire and the S Midlands (Q58)	38%		38%		7%		2%		9%		0%		6%		1,418
CI	35%	40%	36%	41%	6%	9%	1%	3%	8%	10%	0%	0%	5%	7%	
Kent and Medway (Q67)	39%		33%		10%		2%		9%		1%		6%		1,043
CI	36%	42%	30%	36%	8%	12%	2%	4%	7%	11%	0%	1%	5%	7%	
Lancashire (Q47)	44%		35%		9%		1%		9%		0%		2%		997
CI	40%	47%	32%	38%	7%	11%	1%	2%	7%	10%	0%	1%	1%	3%	
Leicestershire and Lincolnshire (Q59)	39%		39%		8%		1%		9%				3%		1,308
CI	37%	42%	37%	42%	7%	10%	1%	2%	8%	11%			2%	4%	
London (Q71)	35%		37%		10%		2%		9%		0%		6%		3,713
CI	33%	36%	36%	39%	9%	11%	1%	2%	8%	10%	0%	0%	6%	7%	
Merseyside (Q48)	38%		30%		19%		2%		9%				2%		700
CI	34%	42%	27%	33%	16%	22%	1%	4%	7%	11%			1%	4%	
N Yorkshire and Humber (Q50)	42%		37%		4%		3%		9%		1%		4%		1,183
CI	39%	45%	34%	40%	3%	6%	2%	4%	7%	10%	0%	1%	3%	5%	
Shropshire and Staffordshire (Q60)	44%		36%		7%		2%		6%		1%		4%		1,043
CI	41%	47%	33%	39%	5%	8%	1%	3%	5%	8%	0%	2%	3%	6%	
S Yorkshire and Bassetlaw (Q51)	39%		39%		13%		1%		8%		0%		2%		810
CI	35%	42%	35%	42%	10%	15%	0%	2%	6%	10%	0%	1%	1%	3%	
Surrey and Sussex (Q68)	35%		39%		7%		2%		9%		1%		8%		1,619
CI	33%	38%	36%	41%	6%	8%	1%	2%	7%	10%	0%	1%	7%	9%	
Thames Valley (Q69)	41%		33%		10%		2%		8%		0%		6%		1,081
CI	38%	43%	30%	36%	8%	12%	1%	3%	6%	10%	0%	1%	5%	8%	
Wessex (Q70)	33%		42%		10%		3%		9%		0%		3%		1,692
CI	31%	35%	40%	44%	9%	11%	2%	4%	7%	10%	0%	1%	3%	4%	
W Yorkshire (Q52)	43%		34%		7%		2%		9%		0%		4%		1,201
CI	40%	46%	32%	37%	6%	9%	1%	3%	8%	11%	0%	1%	3%	6%	

Tables for cervical cancer

Table A. 8: cervical cancer – proportion of cases and 95% CIs by RtD, stage and age, 2006 to 2010

		'screen detected'	'2-week wait'	'GP referral'	'other outpatient'	'inpatient elective'	Emergency presentation	'DCO'	'unknown'	Number of cases
I	0 to 49	42%	6%	33%	12%	2%	2%		3%	4,196
	CI	41% 44%	5% 7%	32% 35%	11% 13%	2% 3%	1% 2%		3% 4%	
	50 to 64	31%	17%	35%	10%	2%	2%		4%	715
	CI	27% 34%	15% 20%	31% 38%	8% 12%	1% 3%	1% 4%		2% 5%	
	65 to 79	6%	37%	35%	5%	2%	11%		4%	249
	CI	4% 10%	31% 43%	29% 41%	3% 9%	1% 4%	8% 16%		2% 7%	
	80 plus	1%	43%	29%	5%	2%	19%		1%	98
	CI	0% 6%	34% 53%	21% 38%	2% 11%	1% 7%	13% 28%		0% 6%	
	Overall	38%	10%	33%	11%	2%	2%		3%	5,258
	CI	37% 40%	9% 11%	32% 35%	10% 12%	2% 2%	2% 3%		3% 4%	
II	0 to 49	15%	17%	36%	11%	4%	10%		6%	597
	CI	13% 19%	15% 21%	32% 40%	8% 13%	3% 6%	8% 13%		5% 8%	
	50 to 64	14%	31%	29%	8%	2%	12%		4%	339
	CI	11% 18%	27% 36%	25% 35%	5% 11%	1% 4%	9% 16%		2% 6%	
	65 to 79	3%	46%	24%	7%	2%	14%		5%	281
	CI	1% 6%	40% 52%	19% 29%	4% 10%	1% 4%	11% 19%		3% 8%	
	80 plus		37%	34%	6%	1%	20%		1%	155
	CI		30% 45%	27% 42%	4% 11%	0% 4%	14% 27%		0% 5%	
	Overall	11%	29%	32%	9%	3%	13%		5%	1,372
	CI	9% 12%	27% 31%	29% 34%	7% 10%	2% 4%	11% 15%		4% 6%	
III	0 to 49	15%	20%	28%	11%	1%	19%		6%	297
	CI	11% 19%	16% 25%	23% 33%	8% 15%	1% 3%	15% 24%		4% 9%	
	50 to 64	5%	36%	22%	9%	1%	24%		2%	183
	CI	3% 9%	29% 43%	17% 29%	6% 14%	0% 4%	18% 31%		1% 5%	
	65 to 79	2%	45%	24%	8%	1%	16%		4%	171
	CI	1% 5%	38% 53%	18% 31%	5% 13%	0% 4%	12% 23%		2% 7%	
	80 plus		36%	24%	2%	2%	31%		6%	108
	CI		28% 46%	17% 33%	1% 7%	1% 7%	23% 40%		3% 12%	
	Overall	7%	32%	25%	9%	1%	21%		4%	759
	CI	6% 9%	29% 35%	22% 28%	7% 11%	1% 2%	18% 24%		3% 6%	
IV	0 to 49	10%	13%	25%	9%	3%	35%	1%	5%	195
	CI	6% 15%	9% 19%	20% 32%	6% 14%	1% 6%	29% 42%	0% 3%	2% 9%	
	50 to 64	4%	26%	16%	9%	2%	39%		4%	185
	CI	2% 8%	20% 33%	11% 22%	5% 14%	1% 5%	33% 47%		2% 8%	
	65 to 79		19%	26%	7%	2%	42%	1%	3%	180
	CI		14% 26%	20% 33%	4% 11%	1% 5%	35% 50%	0% 3%	2% 7%	
	80 plus	1%	21%	26%	10%		42%		1%	112
	CI	0% 5%	14% 29%	19% 35%	6% 17%		33% 51%		0% 5%	
	Overall	4%	20%	23%	8%	2%	39%		4%	672
	CI	3% 6%	17% 23%	20% 26%	6% 11%	1% 3%	36% 43%		2% 5%	
Missing	0 to 49	27%	8%	35%	13%	2%	7%		6%	2,092
	CI	25% 29%	7% 10%	33% 37%	12% 15%	2% 3%	6% 9%		5% 7%	
	50 to 64	13%	22%	31%	10%	2%	16%	1%	5%	797
	CI	11% 16%	19% 25%	28% 35%	8% 12%	1% 3%	14% 19%	0% 1%	4% 7%	
	65 to 79	3%	32%	28%	9%	1%	23%	0%	4%	670
	CI	2% 4%	29% 36%	25% 31%	7% 11%	1% 3%	20% 27%	0% 1%	2% 5%	
	80 plus	1%	25%	22%	6%	2%	39%	1%	5%	525
	CI	0% 2%	21% 29%	19% 26%	4% 8%	1% 3%	35% 44%	0% 2%	3% 7%	
	Overall	17%	17%	32%	11%	2%	16%	0%	5%	4,084
	CI	16% 18%	16% 18%	30% 33%	10% 12%	2% 3%	15% 17%	0% 1%	5% 6%	

Table A. 9: cervical cancer – proportion of cases and 95% CIs by RtD and morphology group, 2006 to 2010

Morphology grouping	'screen detected'		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Squamous carcinoma	25%		16%		32%		11%		2%		10%		0%		4%		8,226
CI	24%	26%	16%	17%	31%	33%	10%	11%	2%	2%	9%	11%	0%	0%	3%	4%	
Adenocarcinoma	28%		16%		31%		11%		2%		8%				4%		2,389
CI	26%	30%	15%	18%	29%	33%	9%	12%	1%	2%	7%	9%			3%	5%	
Adenosquamous	22%		19%		34%		8%		2%		12%				4%		456
CI	19%	26%	16%	23%	30%	38%	6%	11%	1%	3%	9%	15%			2%	6%	
Neuroendocrine	14%		27%		24%		12%		2%		19%						136
CI	9%	21%	20%	35%	18%	32%	7%	18%	1%	6%	13%	27%					
Other epithelial	3%		38%		21%		10%		3%		24%				0%		29
CI	1%	17%	23%	56%	10%	38%	4%	26%	1%	17%	12%	42%			0%	0%	
Unclassified epithelial	10%		11%		21%		9%		2%		34%		1%		10%		464
CI	8%	13%	9%	15%	18%	25%	7%	12%	1%	3%	30%	39%	1%	3%	8%	13%	
Other	7%		17%		23%		12%		3%		32%		2%		5%		355
CI	5%	10%	13%	21%	18%	27%	9%	15%	2%	5%	27%	37%	1%	4%	3%	8%	

Table A. 10: cervical cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010

Area team name (code)	'screen detected'		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Arden, Herefordshire and Worcestershire (Q53)	23%		14%		31%		10%		5%		13%		0%		3%		352
CI	19%	27%	11%	18%	26%	36%	7%	14%	3%	8%	10%	17%	0%	2%	2%	6%	
Bath, Gloucestershire, Swindon and Wiltshire (Q64)	20%		14%		45%		6%		0%		12%				3%		340
CI	16%	25%	11%	18%	40%	50%	4%	10%	0%	2%	9%	16%			1%	5%	
Birmingham and the Black Country (Q54)	21%		12%		42%		10%		0%		12%				3%		613
CI	18%	24%	10%	15%	38%	46%	8%	13%	0%	1%	9%	15%			2%	4%	
Bristol, N Somerset, Somerset and S Gloucestershire (Q65)	33%		17%		21%		14%		1%		11%				3%		404
CI	29%	38%	14%	21%	17%	25%	11%	18%	1%	3%	8%	14%			2%	5%	
Cheshire, Warrington and Wirral (Q44)	25%		20%		24%		14%		0%		15%				2%		248
CI	20%	30%	16%	26%	19%	30%	10%	19%	0%	2%	11%	20%			1%	4%	
Cumbria, Northumberland, Tyne and Wear (Q49)	32%		17%		23%		16%		1%		9%		0%		2%		554
CI	29%	36%	14%	20%	20%	27%	13%	19%	0%	2%	7%	12%	0%	1%	1%	3%	
Derbyshire and Nottinghamshire (Q55)	25%		17%		34%		7%		3%		11%				2%		528
CI	21%	29%	14%	21%	30%	38%	5%	9%	2%	5%	9%	14%			1%	4%	
Devon, Cornwall and Isles of Scilly (Q66)	15%		26%		35%		9%		2%		10%		1%		2%		399
CI	12%	19%	22%	31%	31%	40%	6%	12%	1%	4%	7%	13%	0%	2%	1%	4%	
Durham, Darlington and Tees (Q45)	27%		15%		31%		11%		1%		13%		1%		1%		396
CI	23%	32%	12%	19%	26%	35%	9%	15%	0%	2%	10%	17%	0%	2%	0%	3%	
E Anglia (Q56)	23%		18%		30%		14%		1%		11%				3%		499
CI	20%	27%	15%	21%	27%	35%	11%	18%	0%	2%	9%	14%			2%	4%	
Essex (Q57)	14%		17%		31%		15%		1%		16%				6%		290
CI	10%	18%	13%	22%	26%	37%	12%	20%	0%	2%	12%	21%			4%	10%	
Greater Manchester (Q46)	31%		16%		26%		9%		3%		15%		0%		1%		643
CI	27%	34%	13%	19%	22%	29%	7%	11%	2%	4%	12%	18%	0%	1%	1%	2%	

Table A. 10 continued: cervical cancer – proportion of cases and 95% CIs by RtD and area team, 2006 to 2010

Area team name (code)	'screen detected'		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
Hertfordshire and the S Midlands (Q58)	19%		13%		39%		11%		2%		10%				6%		526
CI	16%	23%	11%	16%	35%	43%	9%	14%	1%	4%	8%	13%			4%	8%	
Kent and Medway (Q67)	6%		16%		39%		22%		1%		11%		0%		5%		311
CI	4%	9%	13%	21%	33%	44%	17%	26%	0%	2%	8%	15%	0%	2%	3%	9%	
Lancashire (Q47)	29%		15%		39%		6%		1%		9%				2%		509
CI	25%	33%	12%	19%	34%	43%	4%	8%	0%	2%	7%	12%			1%	3%	
Leicestershire and Lincolnshire (Q59)	23%		18%		29%		16%		3%		8%				3%		501
CI	20%	27%	14%	21%	25%	33%	13%	20%	2%	5%	6%	11%			2%	5%	
London (Q71)	20%		14%		33%		9%		3%		12%				10%		1,353
CI	18%	22%	12%	16%	30%	35%	8%	11%	2%	4%	10%	14%			8%	11%	
Merseyside (Q48)	29%		18%		24%		12%		2%		12%		0%		3%		364
CI	25%	34%	14%	22%	20%	29%	9%	16%	1%	4%	9%	15%	0%	2%	2%	5%	
N Yorkshire and Humber (Q50)	27%		16%		33%		5%		5%		10%		0%		4%		484
CI	23%	31%	13%	20%	29%	37%	3%	7%	4%	8%	8%	13%	0%	1%	2%	6%	
Shropshire and Staffordshire (Q60)	21%		22%		33%		5%		4%		13%				2%		404
CI	17%	25%	18%	26%	29%	38%	3%	8%	2%	6%	10%	16%			1%	4%	
S Yorkshire and Bassetlaw (Q51)	23%		19%		24%		20%		1%		11%				3%		386
CI	19%	28%	15%	23%	20%	29%	16%	24%	0%	2%	8%	14%			2%	5%	
Surrey and Sussex (Q68)	6%		20%		38%		13%		1%		11%				10%		462
CI	4%	9%	17%	24%	34%	42%	11%	17%	0%	3%	9%	15%			8%	13%	
Thames Valley (Q69)	35%		12%		27%		9%		4%		8%		1%		5%		390
CI	30%	39%	9%	15%	23%	32%	7%	13%	3%	7%	6%	11%	0%	2%	3%	7%	
Wessex (Q70)	38%		14%		25%		7%		2%		11%				4%		597
CI	34%	41%	11%	17%	22%	29%	5%	9%	1%	3%	9%	14%			2%	5%	
W Yorkshire (Q52)	32%		18%		29%		3%		1%		11%				5%		592
CI	29%	36%	15%	22%	26%	33%	2%	5%	1%	2%	9%	14%			4%	7%	

Tables for vulval cancer

Table A. 11: vulval cancer – proportion of cases and 95% CIs by RtD, stage and age, 2006 to 2010.

		'2-week wait'		'GP referral'		'other outpatient'		'inpatient elective'		Emergency presentation		'DCO'		'unknown'		Number of cases
I	0 to 49	18%		55%		19%		1%		1%				5%		152
	CI	13%	25%	47%	63%	14%	26%	0%	5%	0%	5%			3%	10%	
	50 to 64	31%		42%		19%		1%		4%				3%		178
	CI	25%	38%	35%	49%	14%	26%	0%	3%	2%	8%			2%	7%	
	65 to 79	39%		42%		14%		2%		2%				1%		248
	CI	33%	45%	36%	48%	10%	19%	1%	5%	1%	5%			0%	3%	
	80 plus	42%		39%		12%		1%		4%				2%		168
	CI	34%	49%	32%	46%	8%	18%	0%	4%	2%	8%			1%	6%	
	Overall	33%		44%		16%		1%		3%				3%		746
	CI	30%	37%	40%	48%	13%	18%	1%	2%	2%	4%			2%	4%	
II	0 to 49	30%		47%		7%		3%		3%				10%		30
	CI	17%	48%	30%	64%	2%	21%	1%	17%	1%	17%			3%	26%	
	50 to 64	32%		41%		18%		2%		2%				5%		44
	CI	20%	47%	28%	56%	10%	32%	0%	12%	0%	12%			1%	15%	
	65-79	45%		42%		5%				5%				2%		92
	CI	35%	55%	33%	53%	2%	12%			2%	12%			1%	8%	
	80 plus	50%		27%		8%		2%		6%				6%		113
	CI	41%	59%	20%	36%	4%	14%	0%	6%	3%	12%			3%	12%	
	Overall	43%		37%		9%		1%		5%				5%		279
	CI	38%	49%	31%	42%	6%	12%	1%	4%	3%	8%			3%	8%	
III	0 to 49	40%		36%		8%				4%				12%		25
	CI	23%	59%	20%	55%	2%	25%			1%	20%			4%	30%	
	50 to 64	38%		31%		16%		2%		9%				5%		58
	CI	27%	51%	21%	44%	8%	27%	0%	9%	4%	19%			2%	14%	
	65 to 79	59%		25%		10%		1%		4%				1%		100
	CI	49%	68%	18%	34%	6%	17%	0%	5%	2%	10%			0%	5%	
	80 plus	53%		30%		9%				4%				4%		79
	CI	42%	64%	21%	41%	4%	17%			1%	11%			1%	11%	
	Overall	51%		29%		11%		1%		5%				4%		262
	CI	45%	57%	24%	35%	7%	15%	0%	3%	3%	8%			2%	7%	
IV	0 to 49	18%		45%		27%								9%		11
	CI	5%	48%	21%	72%	10%	57%							2%	38%	
	50 to 64	28%		45%		17%		7%		3%						29
	CI	15%	46%	28%	62%	8%	35%	2%	22%	1%	17%					
	65 to 79	47%		23%		15%		2%		11%				2%		47
	CI	33%	61%	14%	37%	7%	28%	0%	11%	5%	23%			0%	11%	
	80 plus	42%		29%		4%				21%				4%		48
	CI	29%	56%	18%	43%	1%	14%			12%	34%			1%	14%	
	Overall	39%		32%		13%		2%		12%				3%		135
	CI	31%	47%	25%	40%	8%	19%	1%	6%	7%	18%			1%	7%	
Missing	0 to 49	20%		45%		21%		2%		6%				6%		361
	CI	16%	24%	40%	51%	17%	26%	1%	4%	4%	9%			4%	8%	
	50 to 64	30%		44%		13%		1%		6%		0%		6%		489
	CI	26%	34%	39%	48%	10%	16%	1%	3%	4%	9%	0%	1%	4%	8%	
	65 to 79	37%		38%		14%		1%		7%				3%		809
	CI	34%	41%	35%	41%	11%	16%	1%	2%	5%	9%			2%	4%	
	80 plus	39%		31%		8%		1%		15%		2%		3%		906
	CI	36%	42%	28%	34%	7%	10%	1%	2%	13%	18%	1%	3%	2%	5%	
	Overall	34%		38%		13%		1%		10%		1%		4%		2,565
	CI	32%	36%	36%	40%	11%	14%	1%	2%	9%	11%	0%	1%	3%	5%	

Table A. 12: vulval cancer – proportion of cases and 95% CIs by RtD and morphology group, 2006 to 2010

Morphology grouping	'2-week wait'	'GP referral'	'other outpatient'	'inpatient elective'	Emergency presentation	'DCO'	'unknown'	Number of cases
Squamous carcinoma	37%	40%	12%	1%	6%		3%	3,875
CI	35% 38%	39% 42%	11% 13%	1% 2%	5% 7%		3% 4%	
Adenocarcinoma	10%	63%	14%	2%	4%		7%	277
CI	7% 14%	57% 69%	10% 18%	1% 5%	2% 7%		4% 10%	
Other classified and unclassified epithelial	12%	27%	9%		34%	4%	13%	137
CI	7% 18%	20% 35%	6% 16%		27% 43%	2% 9%	8% 20%	
Melanocytic	47%	33%	6%	1%	6%		7%	226
CI	41% 53%	27% 40%	4% 10%	0% 4%	3% 10%		4% 11%	
Miscellaneous tumours	15%	36%	18%	2%	18%	6%	5%	176
CI	11% 21%	30% 44%	13% 24%	1% 6%	13% 25%	3% 10%	2% 9%	

Tables for vaginal cancer

Table A. 13: vaginal cancer – proportion of cases and 95% CIs by RtD and morphology group, 2006 to 2010

Morphology grouping	'2-week wait'	'GP referral'	'other outpatient'	'inpatient elective'	Emergency presentation	'DCO'	'unknown'	Number of cases
Squamous carcinoma	28%	37%	13%	1%	16%		4%	638
CI	25% 32%	34% 41%	11% 16%	1% 3%	13% 19%		3% 6%	
Adenocarcinoma	24%	49%	14%	1%	7%		5%	149
CI	18% 32%	41% 57%	9% 21%	0% 4%	4% 12%		3% 10%	
Other classified and unclassified epithelial	15%	40%	14%	1%	27%	1%	1%	73
CI	9% 25%	29% 51%	8% 23%	0% 7%	18% 39%	0% 7%	0% 7%	
Sarcoma	10%	38%	17%	3%	31%			29
CI	4% 26%	23% 56%	8% 35%	1% 17%	17% 49%			
Melanocytic	44%	38%	3%	2%	11%		2%	61
CI	33% 57%	27% 50%	1% 11%	0% 9%	6% 22%		0% 9%	
Miscellaneous tumours	13%	43%	15%		23%	2%	3%	60
CI	7% 24%	32% 56%	8% 26%		14% 35%	0% 9%	1% 11%	