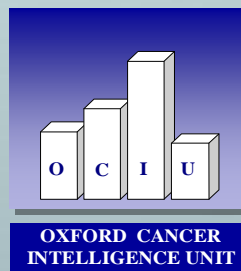




# Clinical Information Analysis (CIA) Programme

## Exploiting Linked Data

Dr Ken Lloyd & Sue Forsey



# Clinical Information Analysis

## Cancer Centres



# CIA programme

- ❑ Established 9 years
- ❑ Now covering approximately 8 million population
- ❑ Validated and consistent linked data
- ❑ Located in the Oxford and Trent Cancer registries
- ❑ Covers all modalities of treatment, linked to registry information

# CIA programme

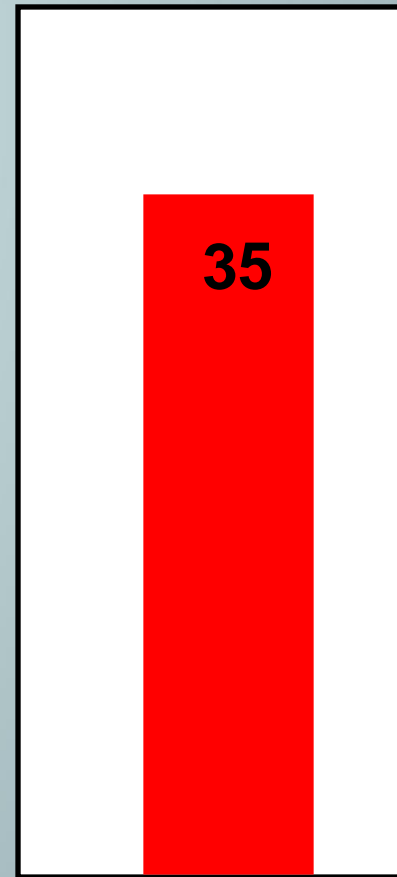
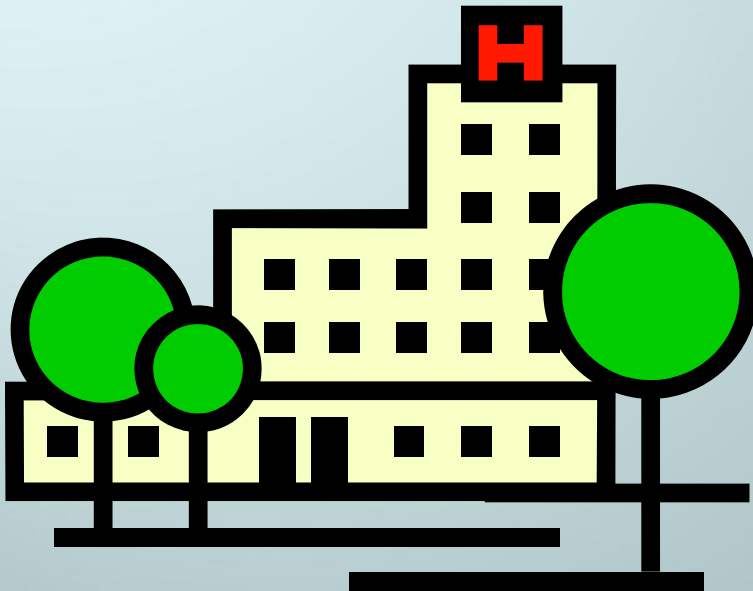
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# CIA programme content

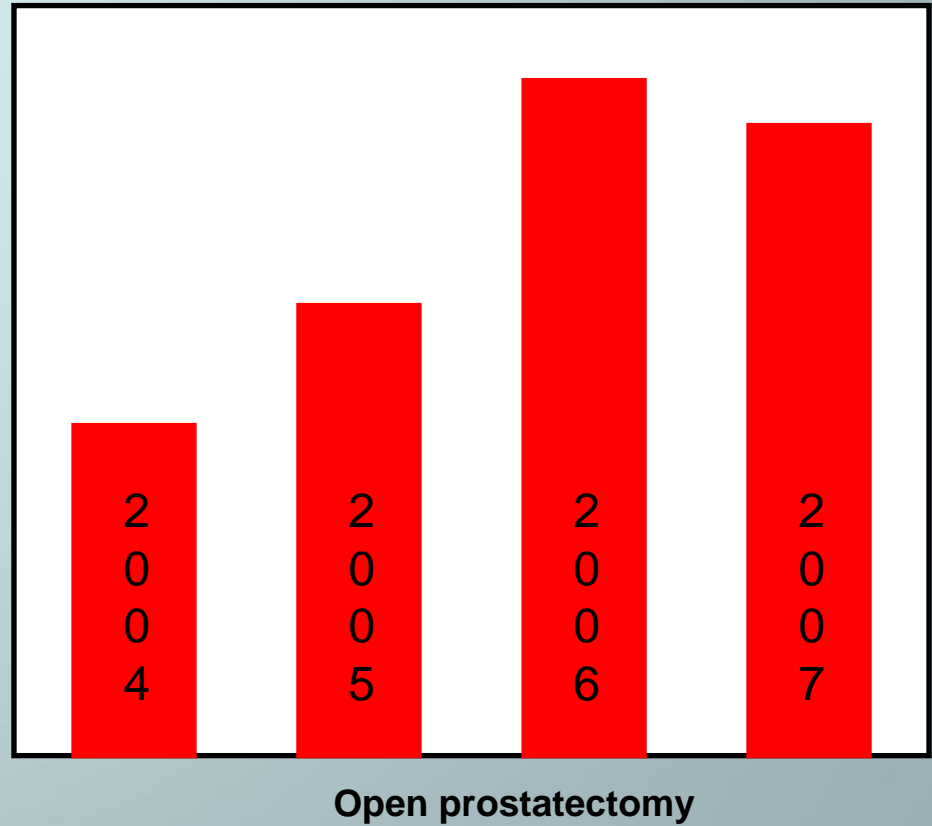
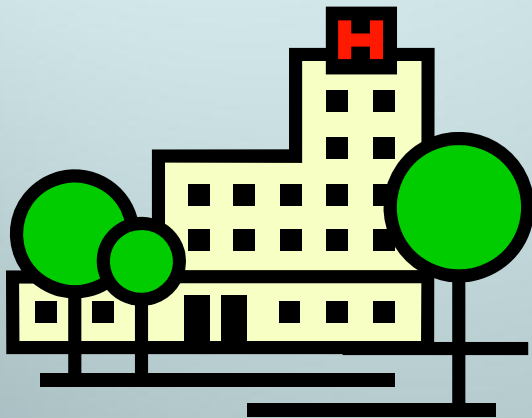
- ❑ Incidence and stage at diagnosis (OCIU/TCR)
- ❑ All major surgical episodes (HES)
- ❑ All radiotherapy courses (from clinical services/RTDS)
- ❑ All chemotherapy programmes (from clinical services/electronic prescribing)
- ❑ Survival and place of death (OCIU/TCR)

# Single provider

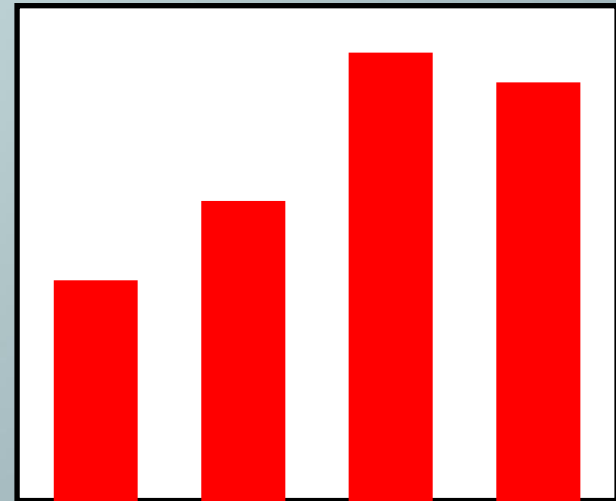
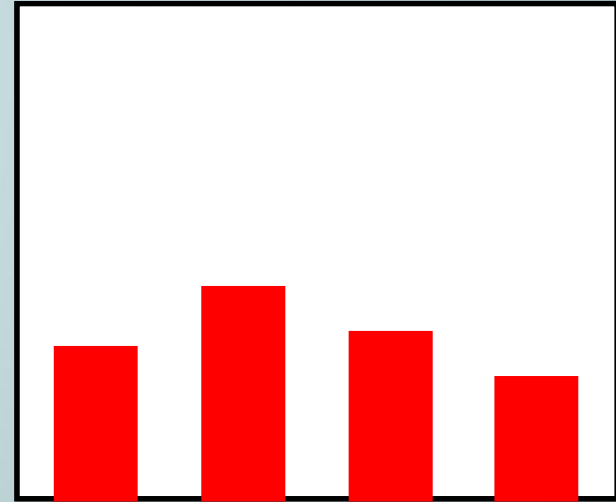
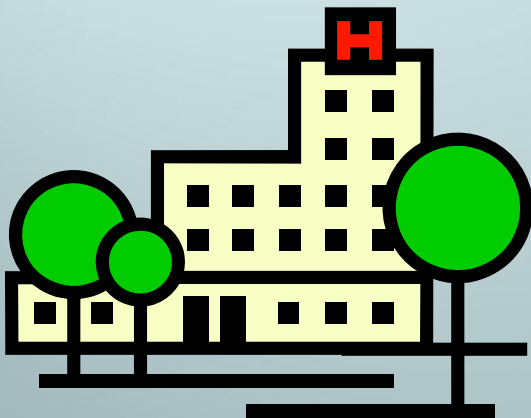
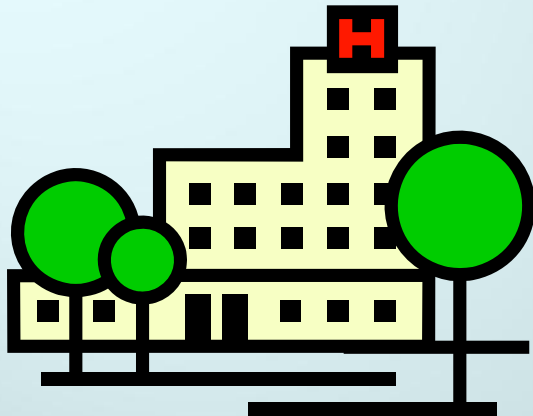


Open prostatectomy

# Single provider trend

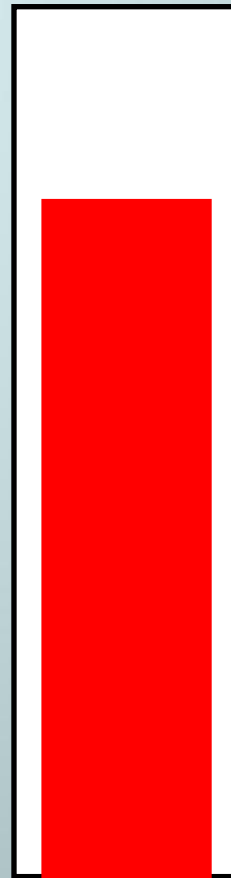
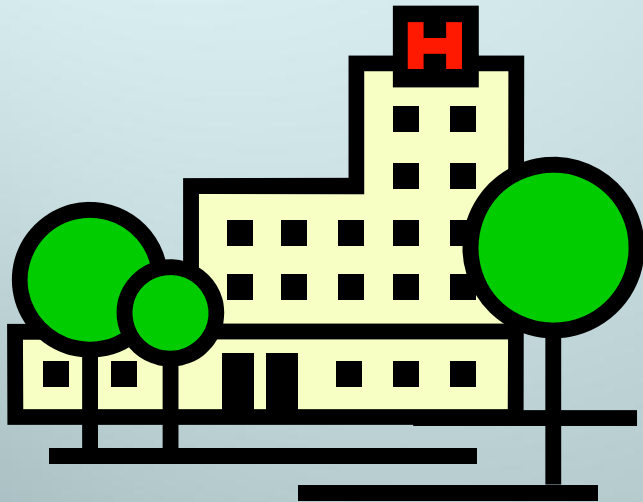


# Multiple providers trend

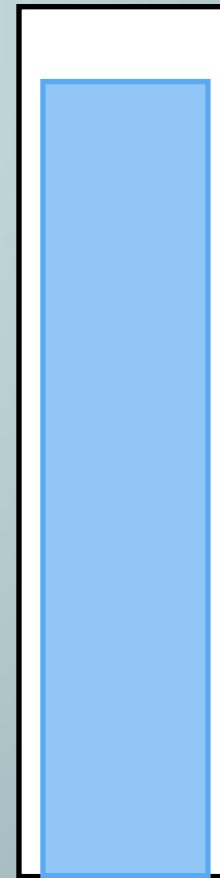




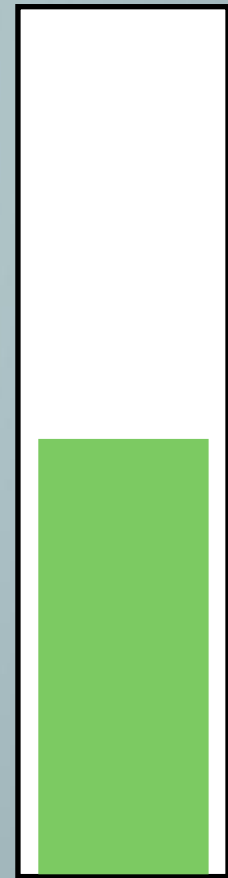
# Multiple Treatment Modalities



Surgery



Radiotherapy



Chemotherapy

# Linkable Programme Content

## Patient level information on all solid tumours

Incidence and stage at diagnosis

Cancer Registry

Major surgical procedures

HES

Radiotherapy courses

Cancer centres / RTDS

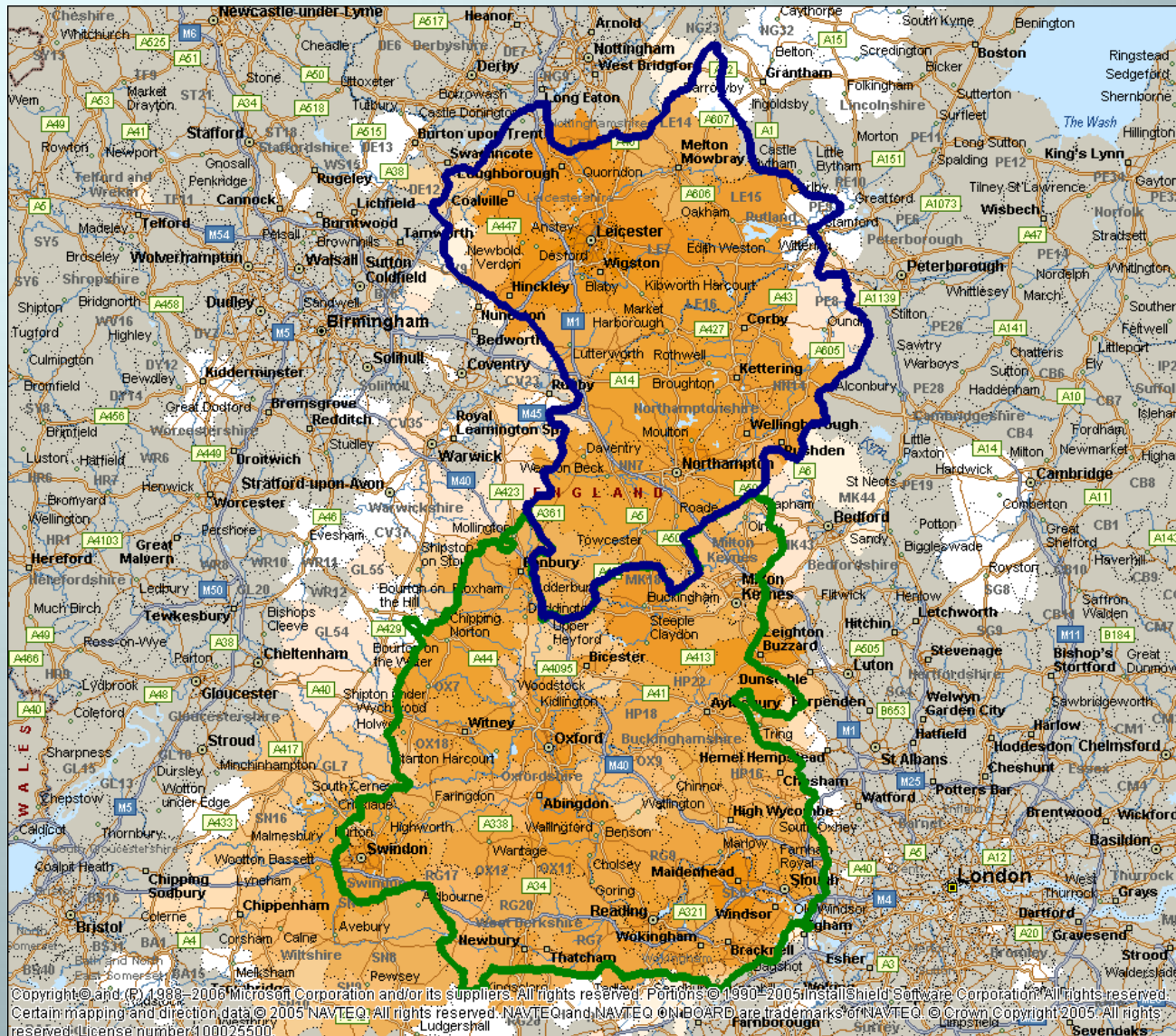
Chemotherapy programmes

Cancer centres / electronic prescribing

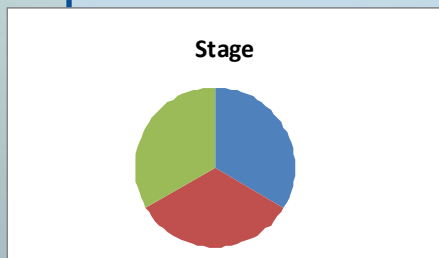
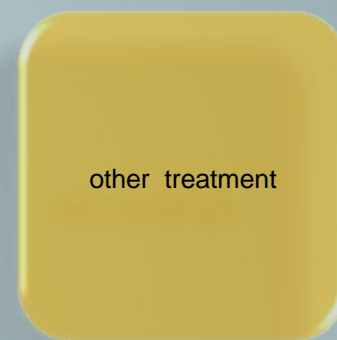
Survival and place of death

Cancer Registry

# Population based analysis



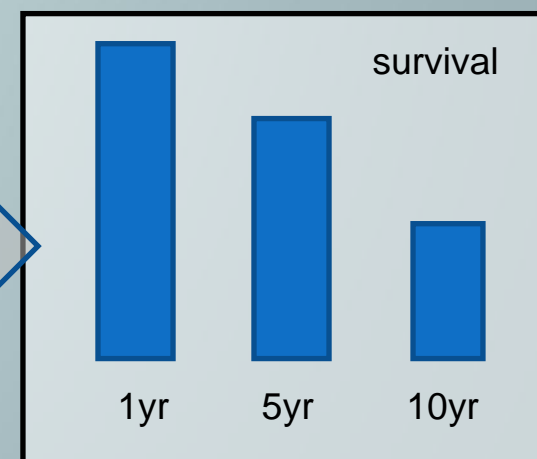
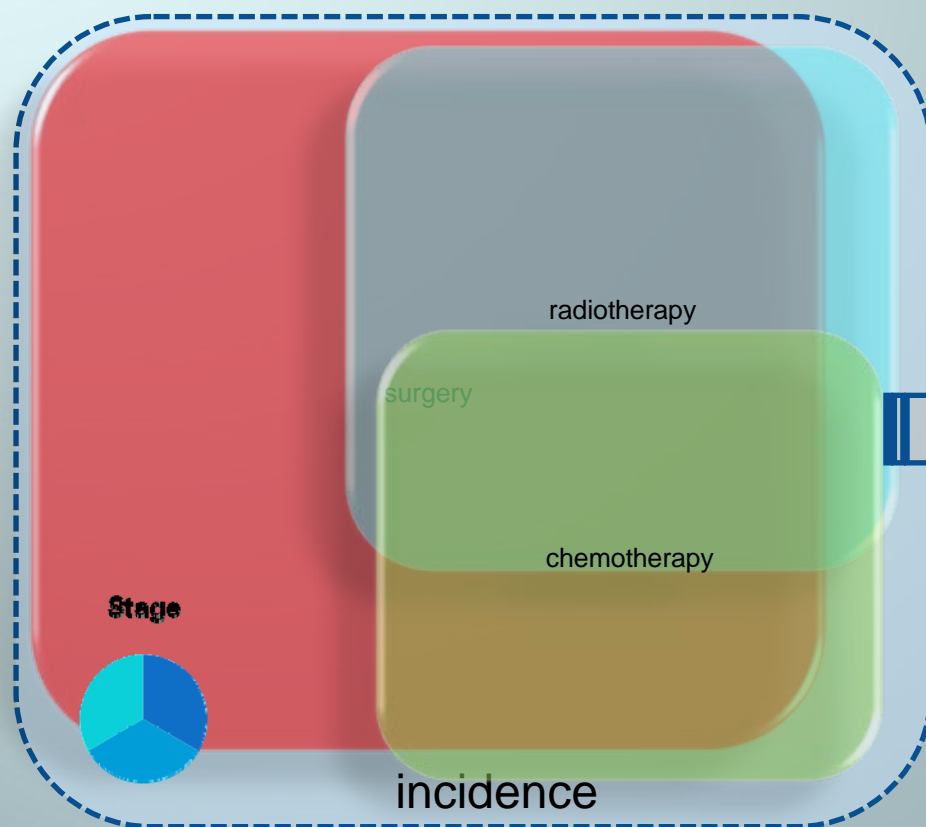
# Linking data



incidence



other treatment





chemotherapy

surgery

radiotherapy

other treatment

Stage

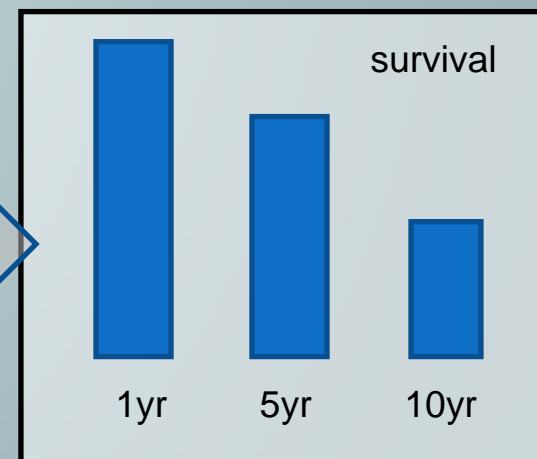
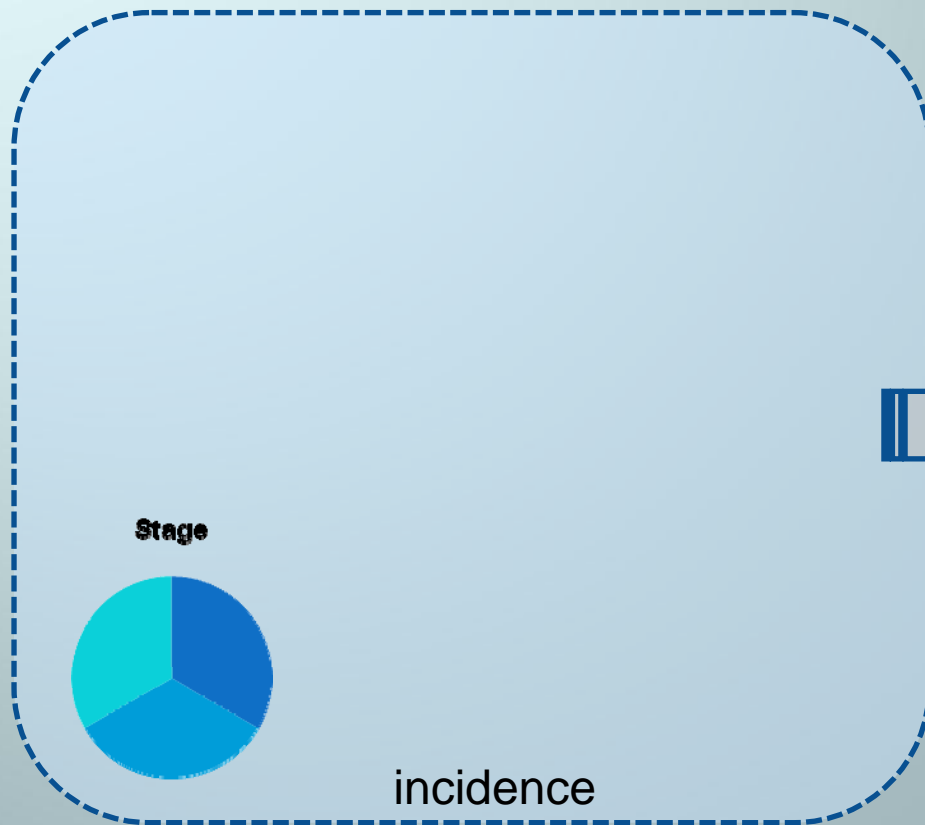
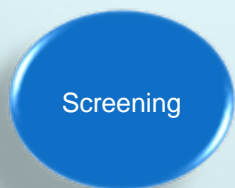
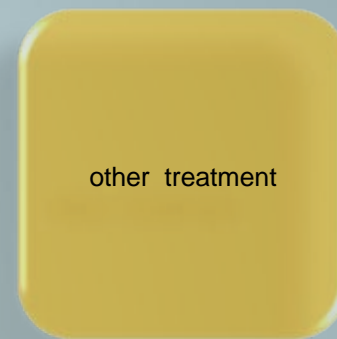


incidence



survival





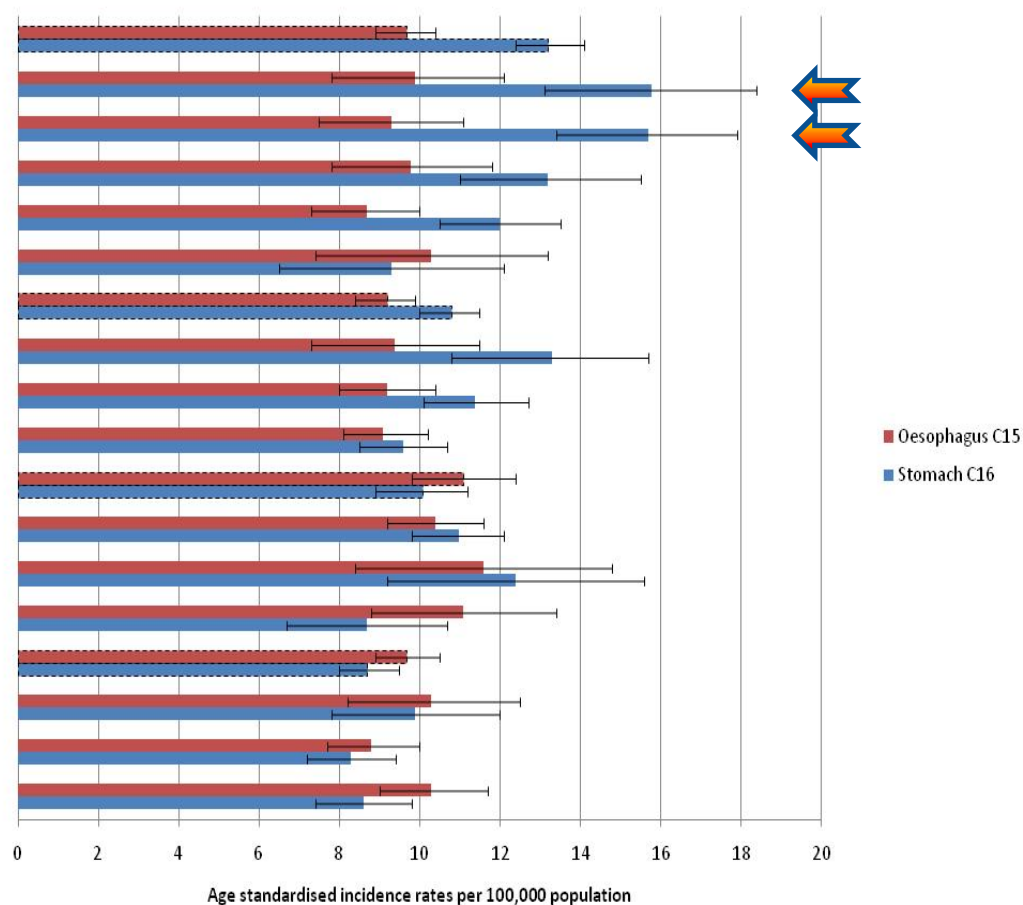
# Examples of analyses

Sources: Oxford Cancer Intelligence Unit  
Trent Cancer Registry

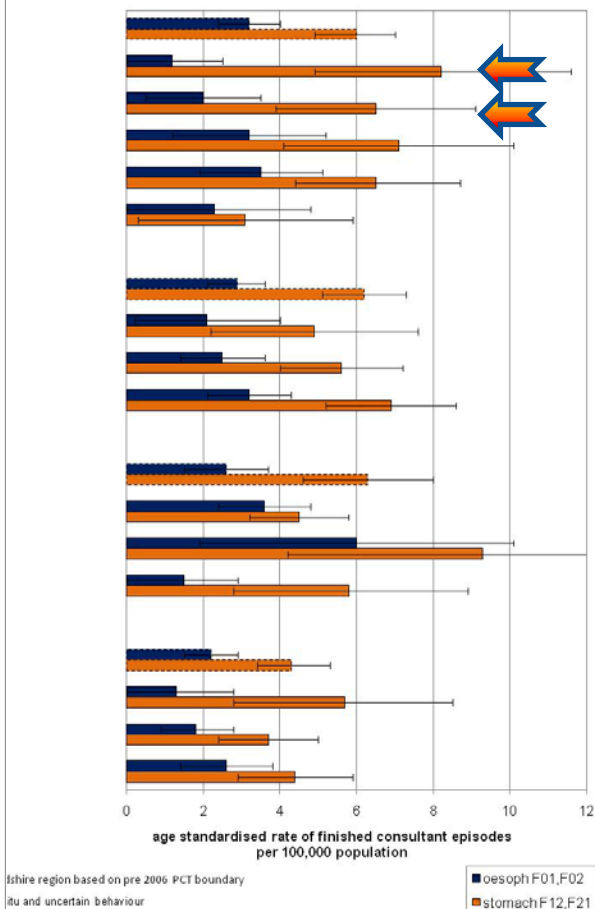
# Incidence and surgery

PCTs and Cancer Networks

Oesophagus and Stomach Cancer Incidence Rates  
Average of years 2003-2005

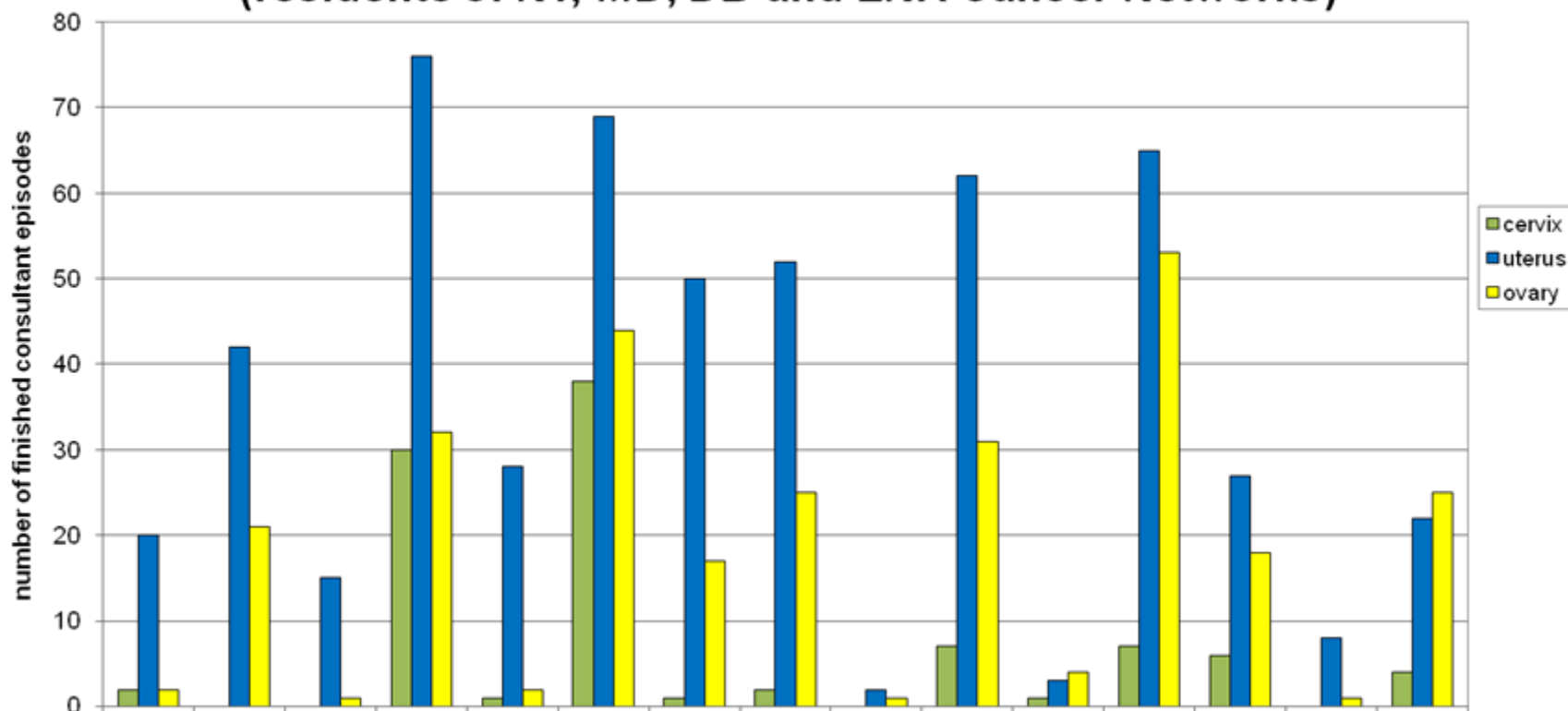


Oesophageal and stomach cancer\* surgery  
HRG rates 2006/07



# Major Surgery by provider

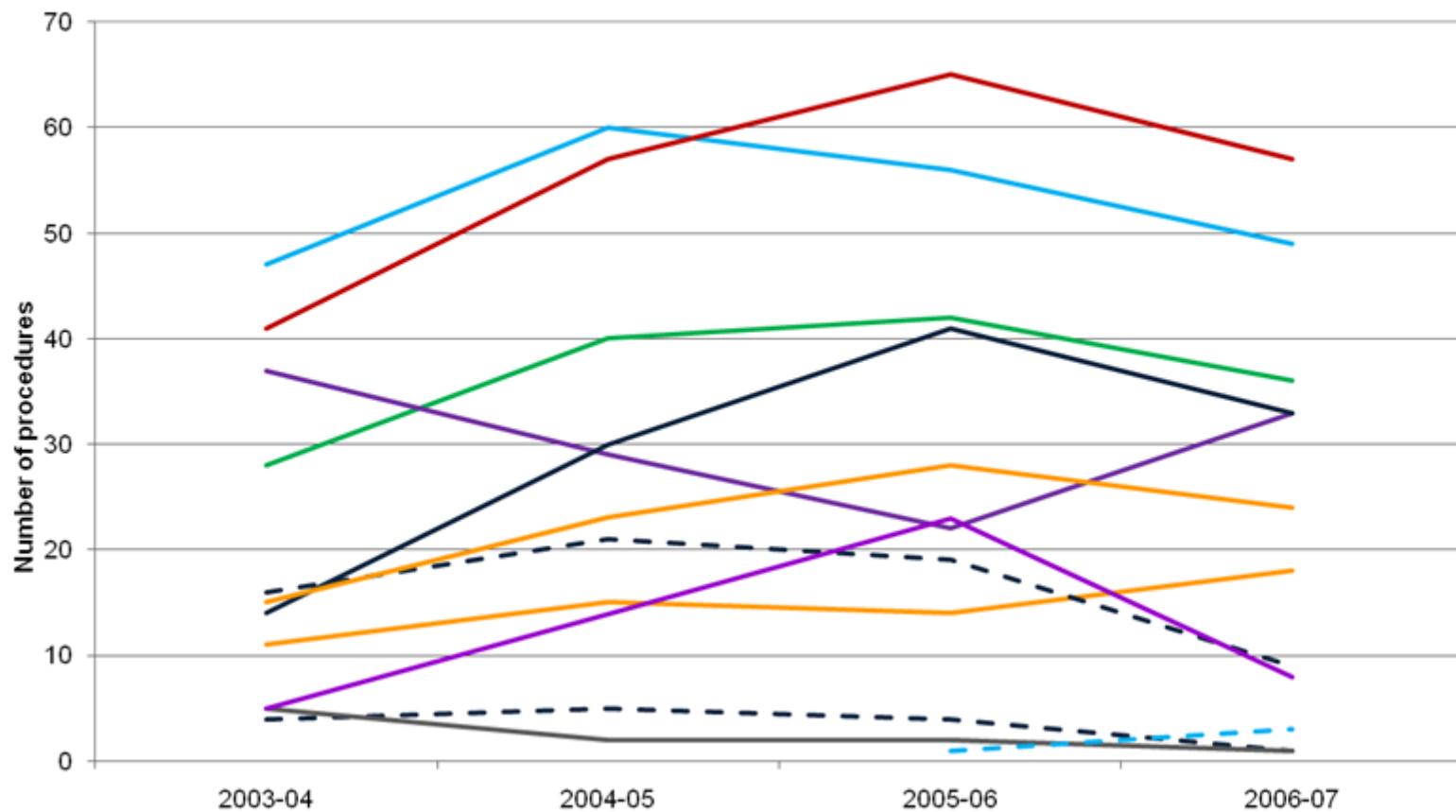
Gynaecological cancer surgery\* HRGs 2006/07 by Trust  
(residents of NT, MD, DB and LNR Cancer Networks)



\*where HRG is M07 or M08

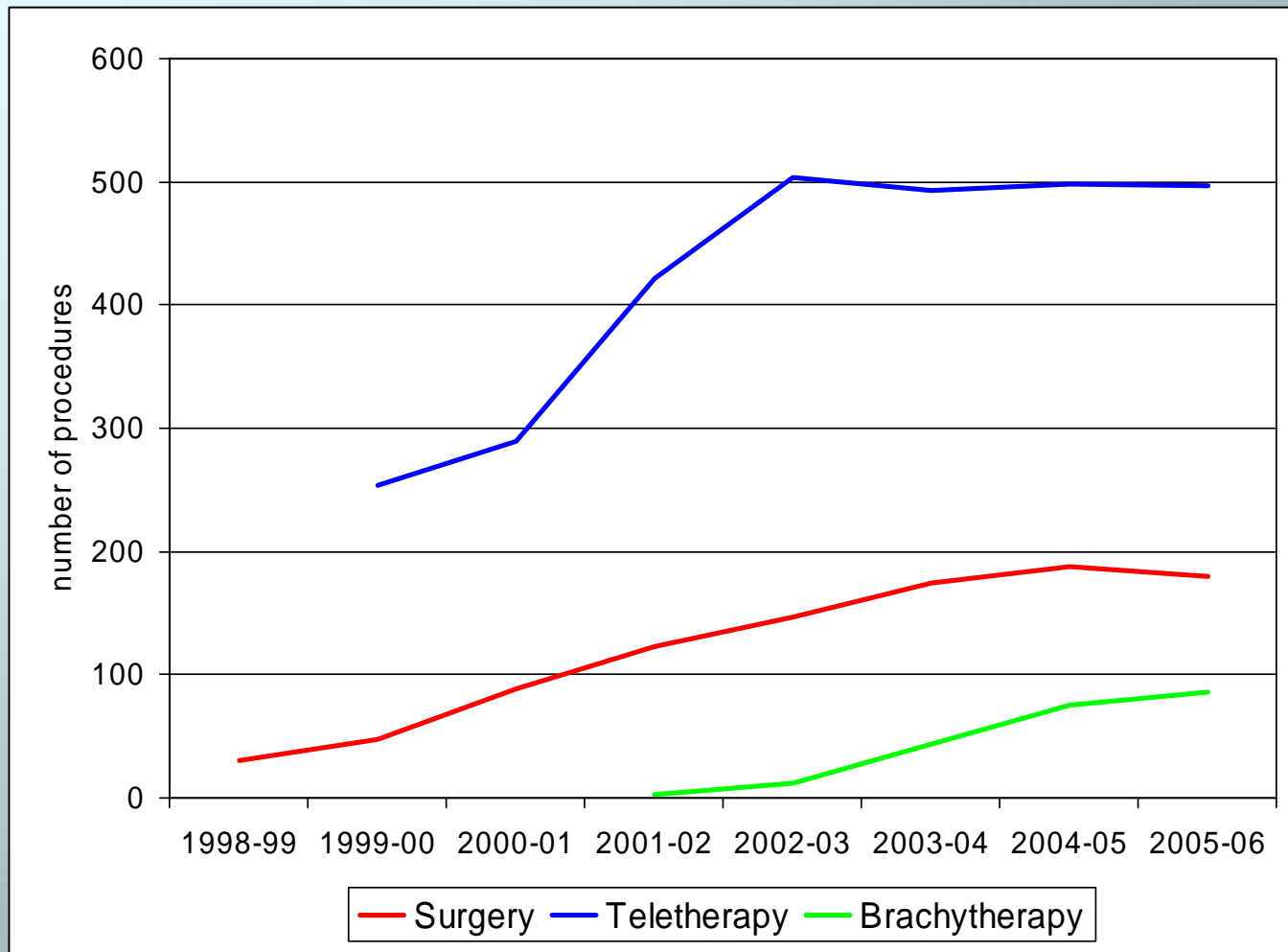
# Trend in prostate surgery

Prostate cancer open surgery trends



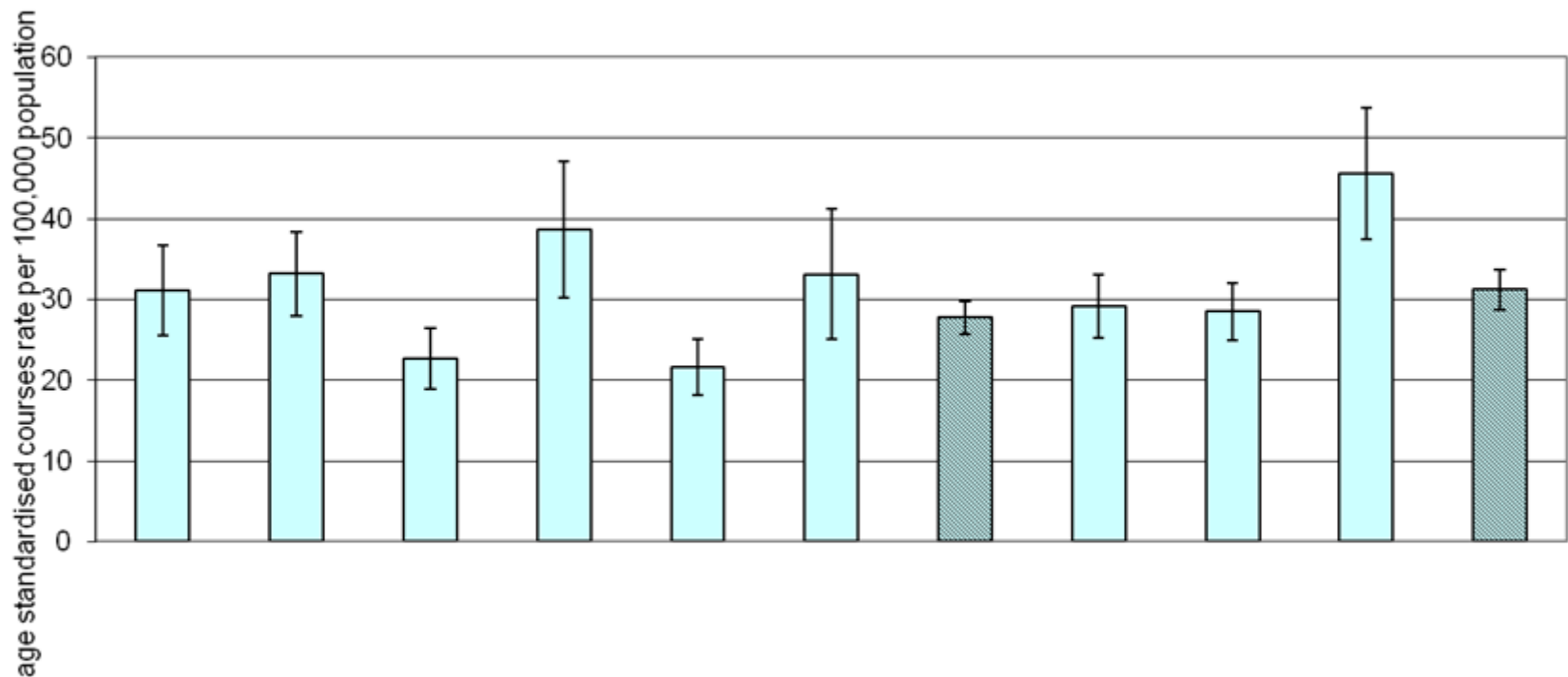


# Trend in radical management of prostate cancer



# Radiotherapy rates by PCT

Lung cancer courses of radiotherapy 2006/07

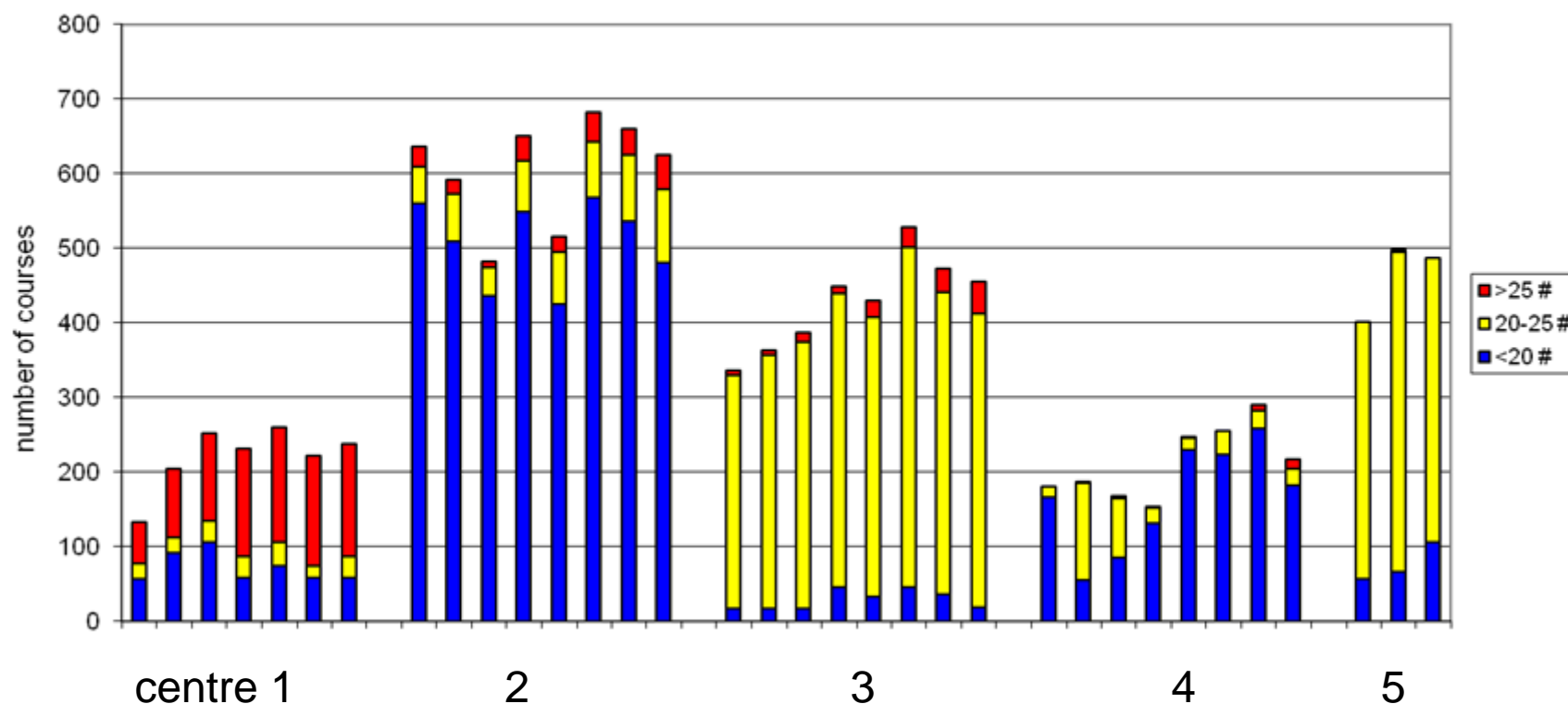


ICD-10: C34+45

area of residence

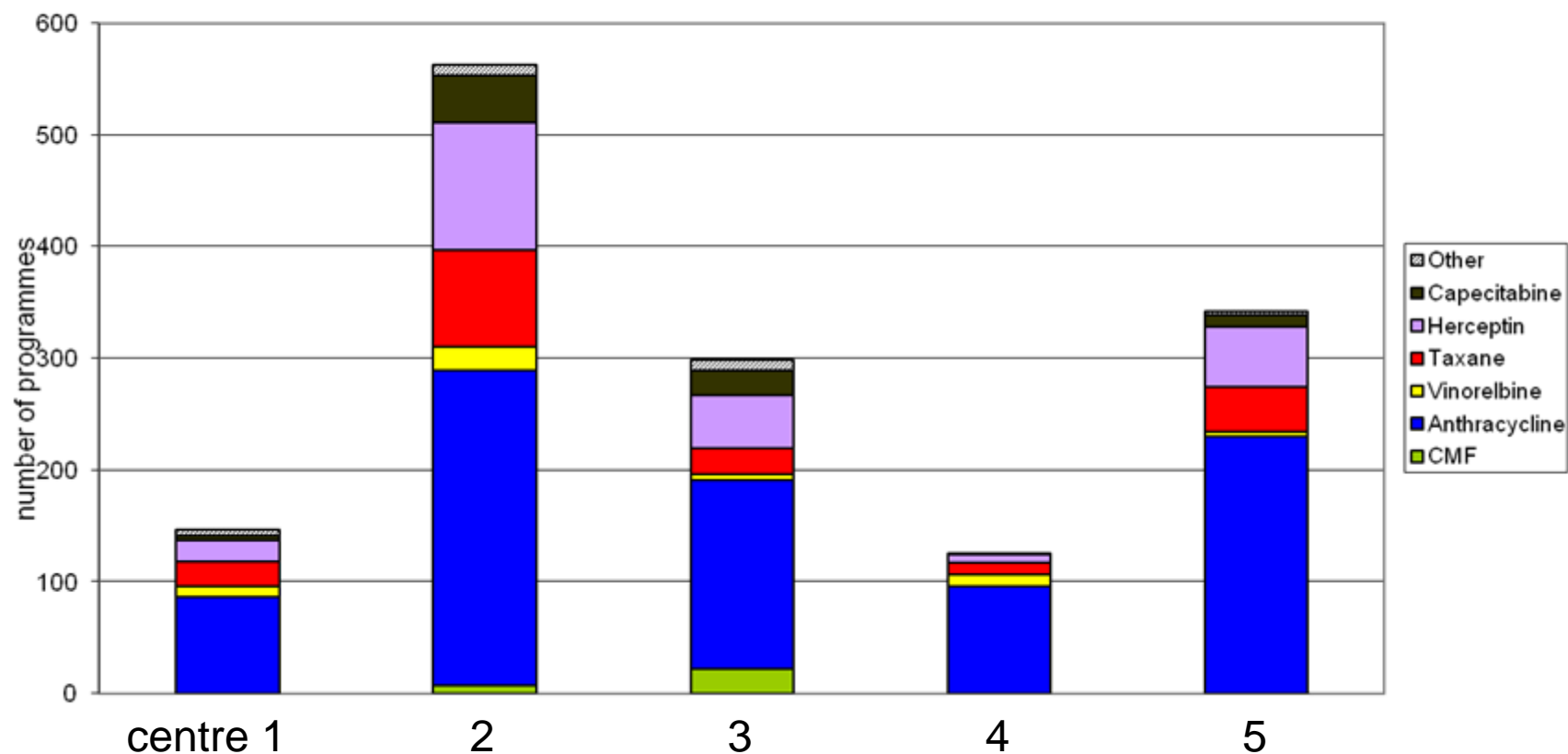
# Radiotherapy trend by provider

**Trends in breast cancer radical radiotherapy**  
(courses divided into fraction groups)



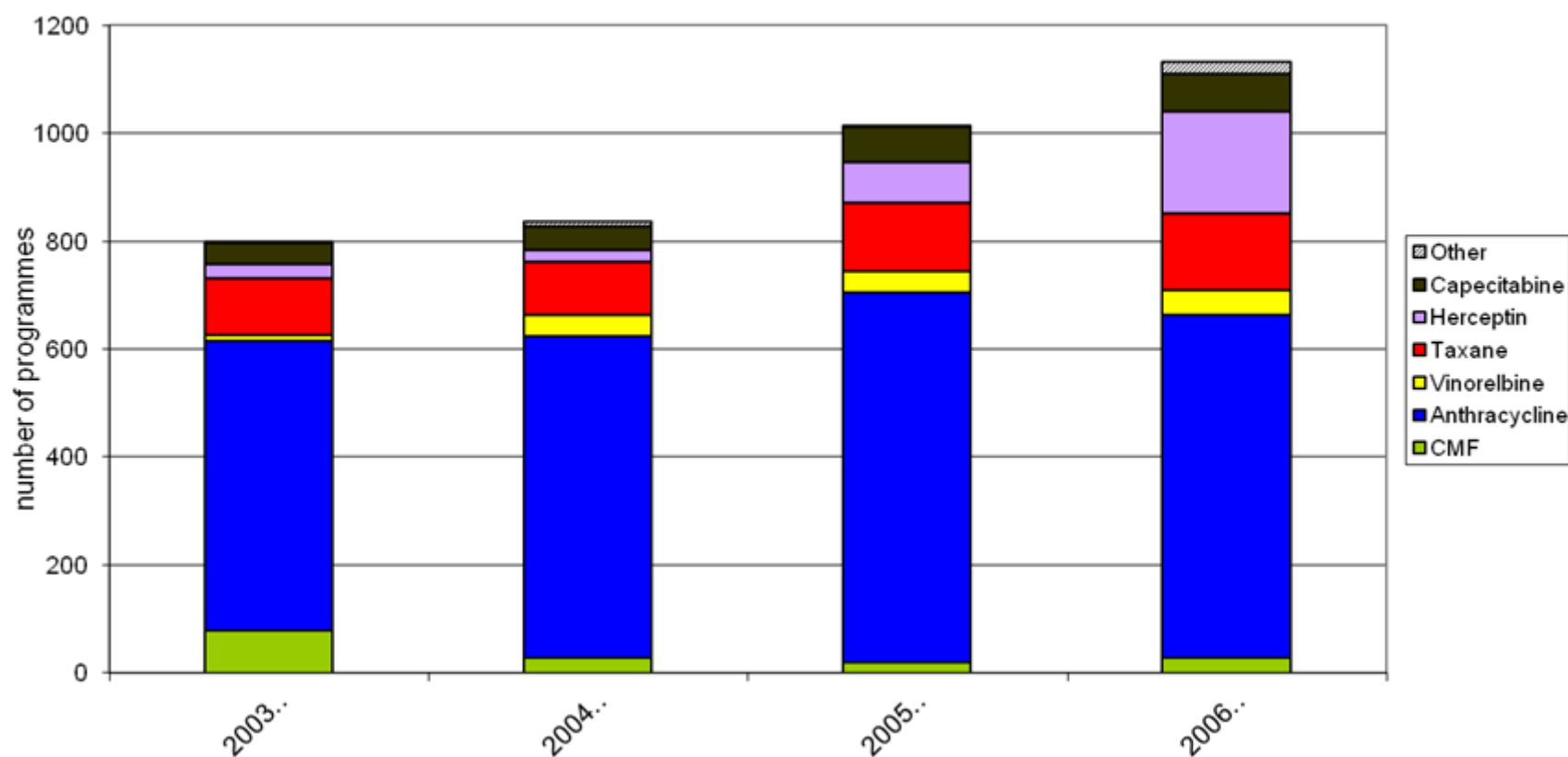
# Chemotherapy by regimen by centre

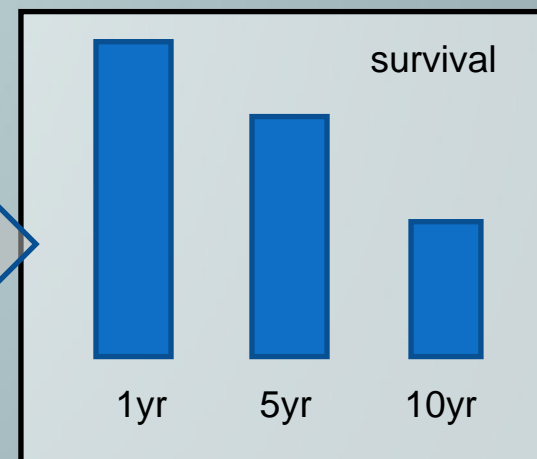
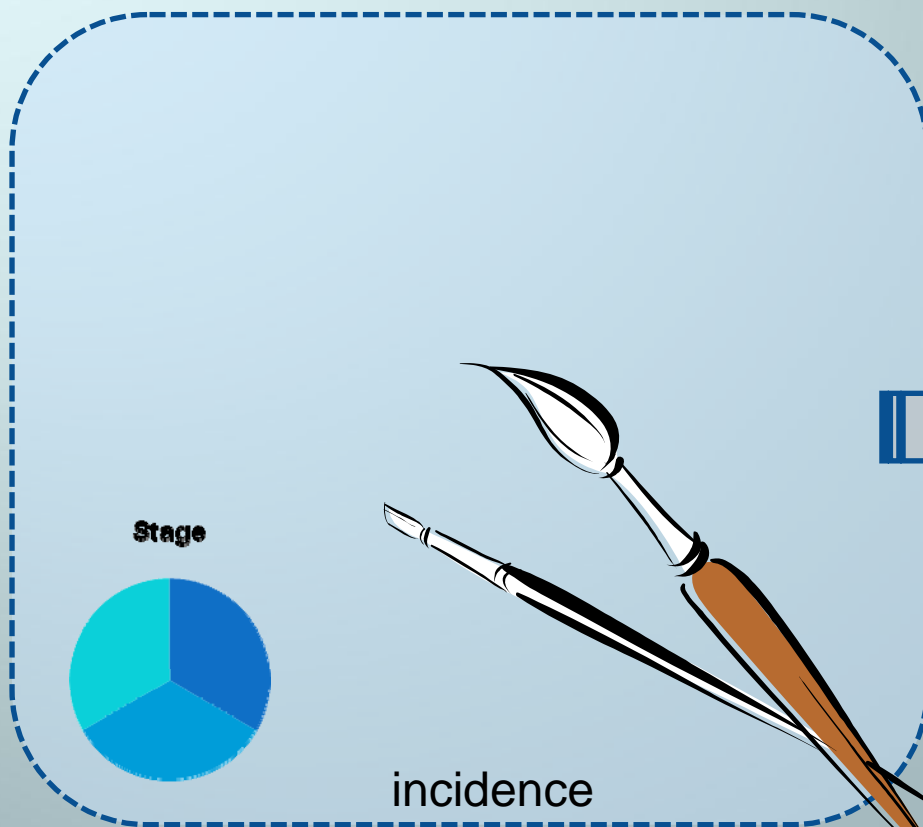
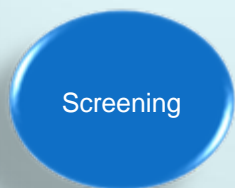
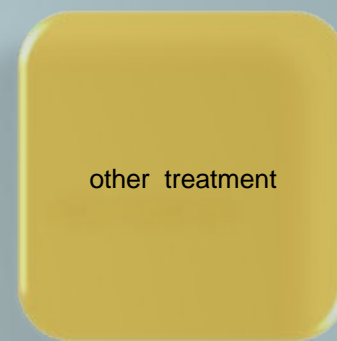
Breast cancer chemotherapy by regimen & centre 2006-07



# Chemotherapy trend by regimen

Breast cancer chemotherapy trends







END

contact: [sue.forsey@ngh.nhs.uk](mailto:sue.forsey@ngh.nhs.uk)