AFTER COSD – WHAT QUESTIONS WILL WE WANT TO ADDRESS?

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Skin SSCRG Chair

And what do we need the data for?

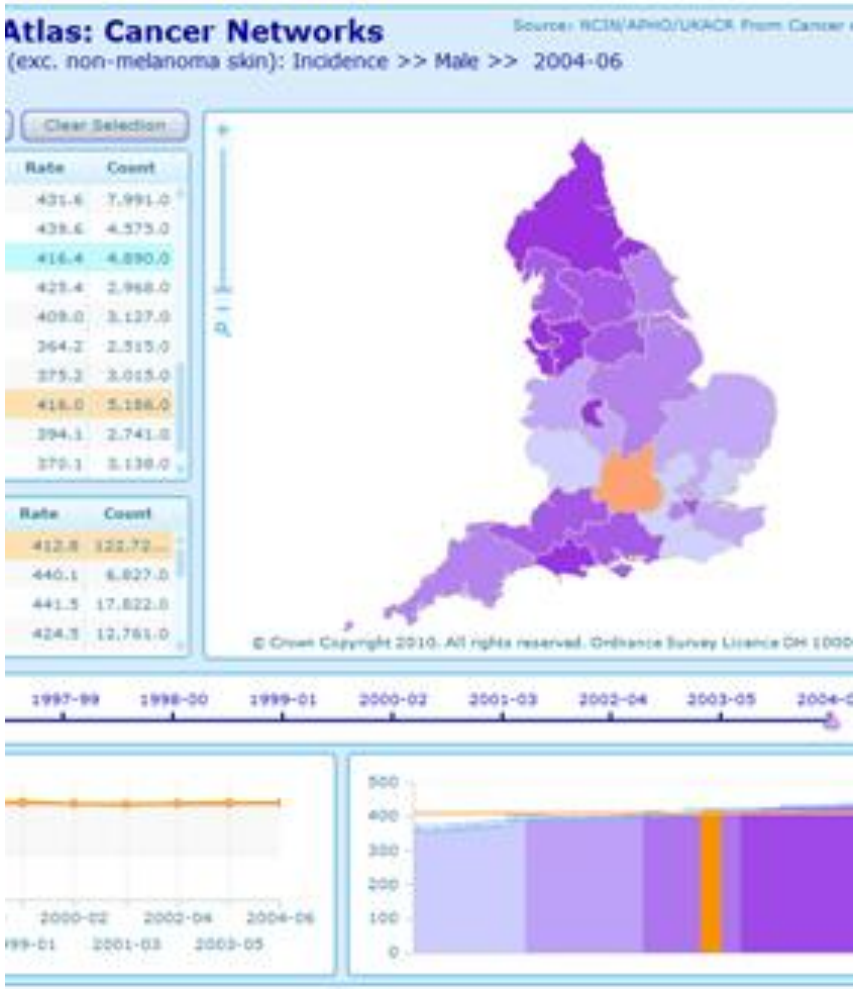
NCIN: aims

- To identify trends in incidence especially where the incidence is increasing
- To plan so that treatment costs can be anticipated

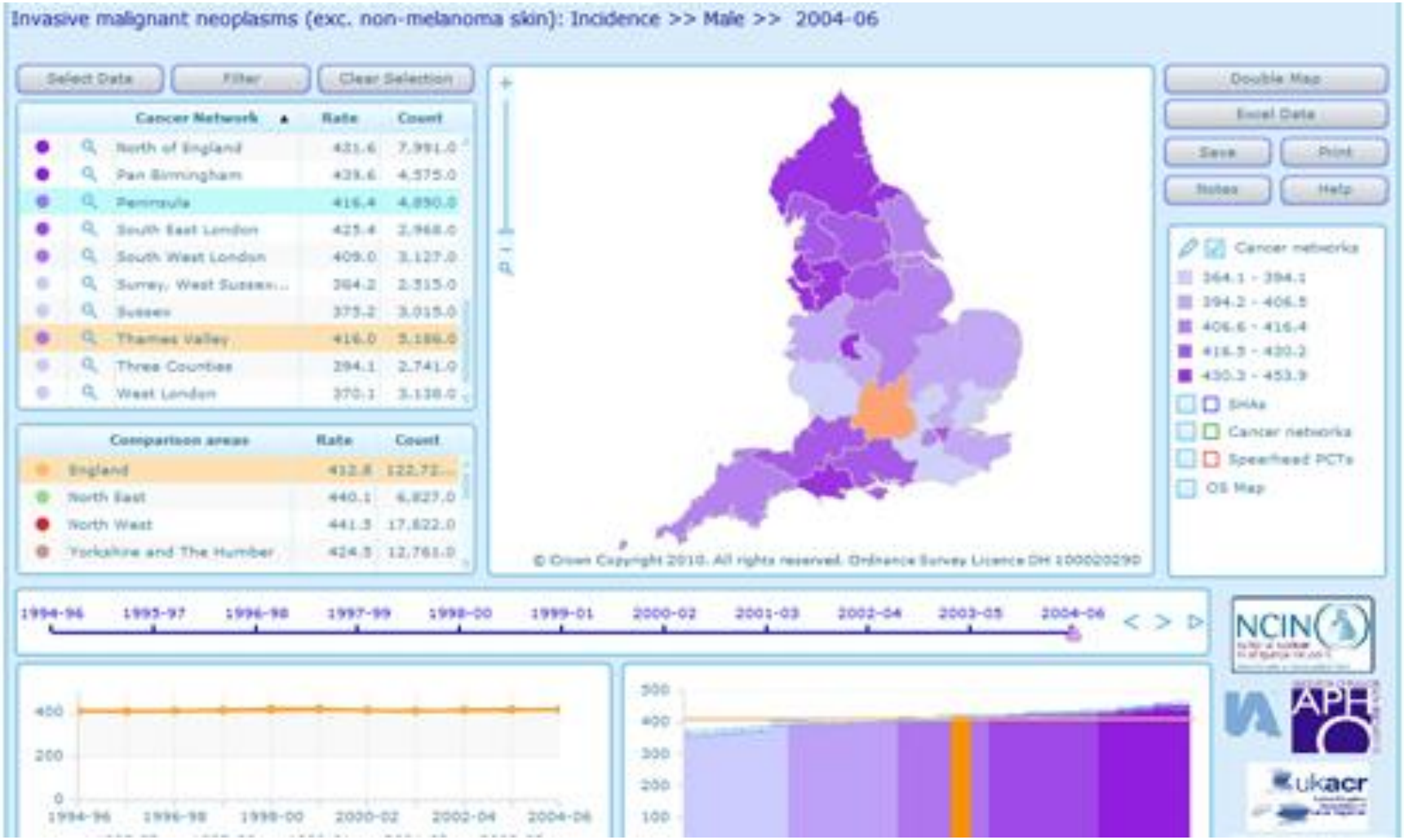
- To use data on skin cancer to drive up the quality of care
  - To identify variation in outcomes which might suggest better or worse care
    - By network
    - Over time

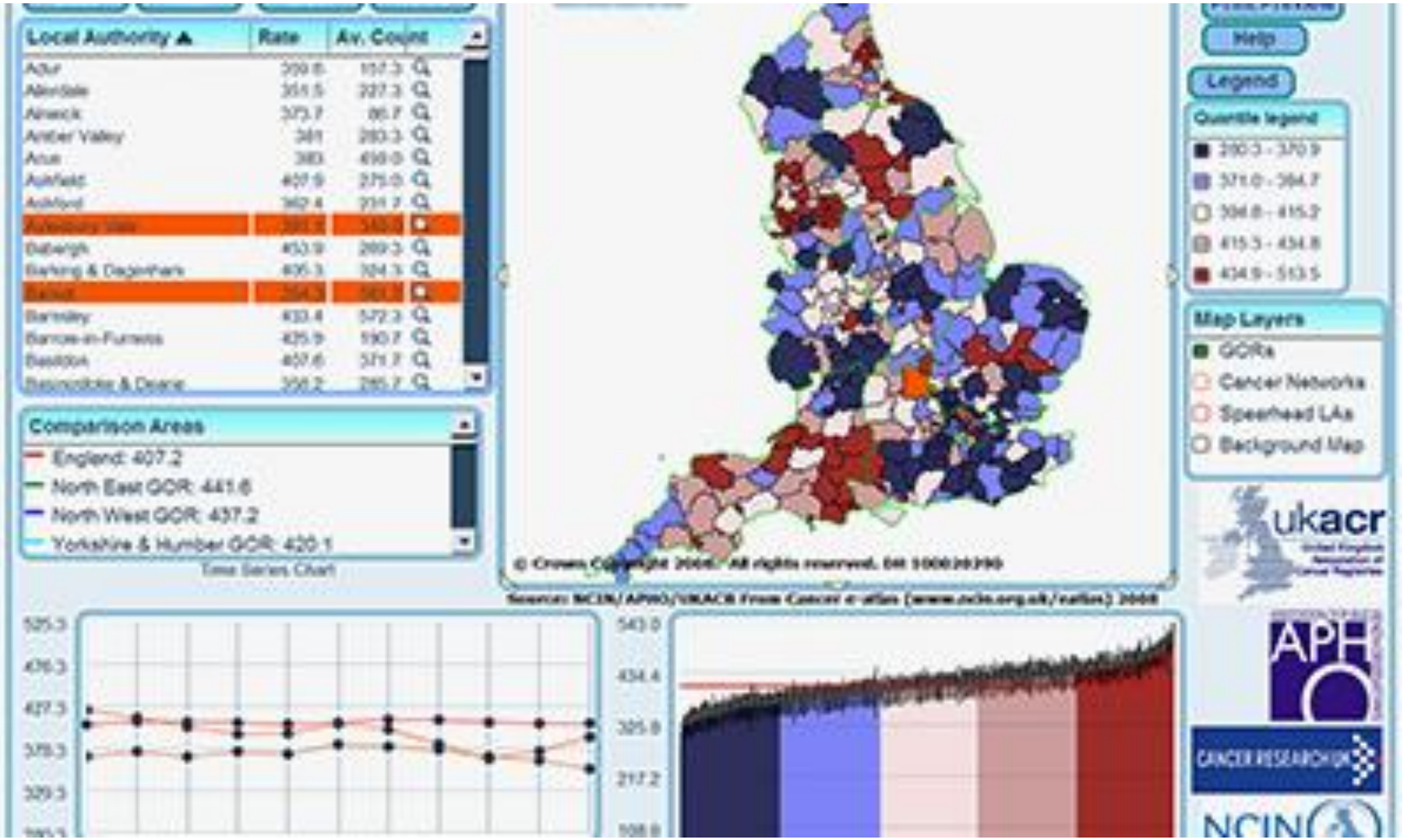
Cancer e-Atlas
Invasive neoplasms excluding NMSC

- The UK cancer e-Atlas provides a way to view cancer incidence, mortality and survival statistics for the UK, the UK constituencies and smaller localities.
- It provides the public, health care professionals, commissioners and health service managers with basic cancer information for the main types of cancer in males, females and persons.



Cancer e-atlas




Local Authority
Rate
Av. Count
Comparison Areas
England: 407.2
North East GOR: 441.6
North West GOR: 437.2
Yorkshire & Humber GOR: 420.1
Time Series Chart
Help
Legend
Quantile legend
Map Layers
GORs
Cancer Networks
Speedhead LAs
Background Map
ukacr
APH
CANCER RESEARCH UK
NCIN

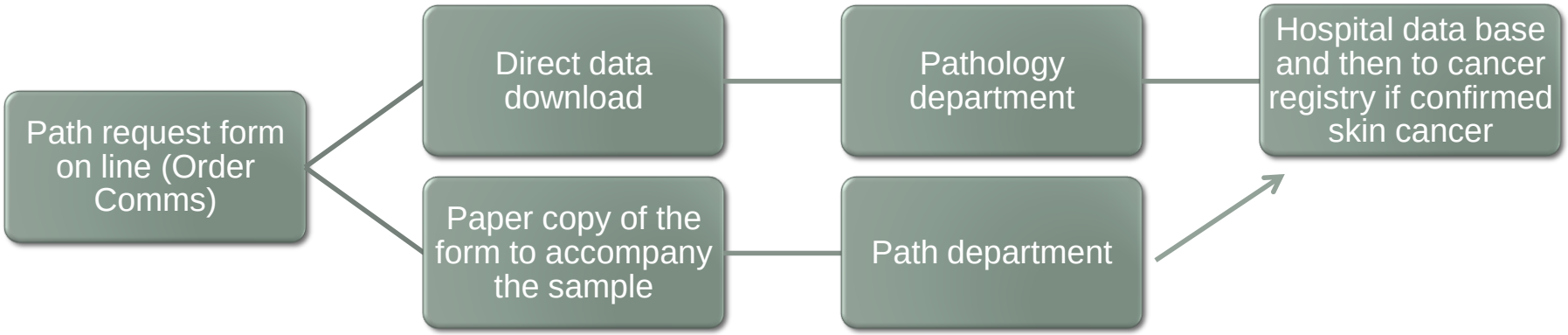
What do we need to know?

- What is the incidence of the different forms of skin cancer?
  - Is there variation by Network and by time?
  - Cancer Registry Issue
- The difficulty is the sheer number of BCC and the cost/difficulty of collecting the data

How can we make data collection on NMSC feasible/cost effective?

- Make it part of everyday practice
- Build it around IT
- For NMSC its mainly an issue of pathology for excision of the primary
- Via Order Comms and
- Pathology reporting by proformas

- Order Communications
- Order Comms
- On-line requests for tests eg imaging, pathology


Path request form on line (Order Comms)
Direct data download
Paper copy of the form to accompany the sample
Pathology department
Path department
Hospital data base and then to cancer registry if confirmed skin cancer

The UK National Histopathology Request form for skin biopsies

Date of surgical procedure

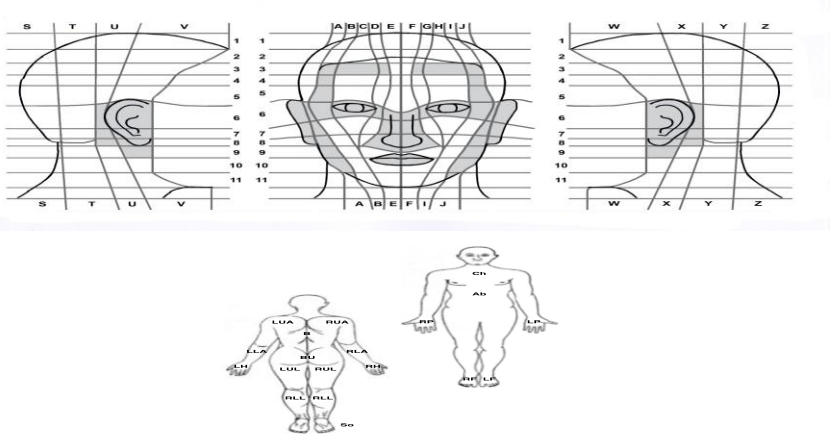
Name of surgeon

Clinical diagnosis: free text

Please attach patient details

Grade of surgeon: Nurse, Specialist trainee, Consultant, Hospital Practitioner, Other

Mandatory for Clinician to complete:	**First biospy**	**Second**	**Third**	**Fourth**
Site Code as per image (insert LUL etc)				
Clinical Diagnosis (select either BCC, SCC, Melanoma, Atypical Mole, other tumour or other). For inflammatory lesions add clinical details as free text.				
Clinical size of lesion sampled (max diameter) (mm)				
Intention of the surgeon (select *biopsy, excision or curative curettage*				
Procedure (select *curettage, shave biopsy, punch, incisional biopsy or excision)*				
For tumours give measured surgical clinical margin (mm)				
Is this a recurrent tumour?	Y/N	Y/N	Y/N	Y/N
Is the pateint immunocompromised?	Y/N			
Is this a tumour arising in areas of radiation or thermal injury, chronic draining sinuses, chronic ulcers, chronic inflammation or Bowen's Disease	Y/N	Y/N	Y/N	Y/N
Is this a tumour arising in a genetically predisposed individual?	Y/N			



Please mark site of samples taken on the above images For head and neck skin cancers the site code will be made up of the number in the horizontal grid and the letter from the vertical grid (e.g. for a tumour in the middle of the nose that might be code 8E). Where a lesion lies across grid lines then that grid reference in which the greater part of the tumour lies should be used OR if the lesion impacts on a grey shaded area or on the lips then that code should be used. Where the tumour is on the marked lips then the code LIP should be used. For tumours outside the head and neck the letters are indicated on the body map. e.g. a tumour on the left lower arm is LLA).

Free text

Site of tumour

Tumour diameter mm

(measured macroscopically)

Breslow tumour thickness (mm) Actual measurement mm

(measured microscopically)

Band: <0.75mm 0.76 - 1.5mm 1.51 - 2mm 2.01-4mm >4mm

Distance to nearest margin Lateral mm Deep mm

(measured microscopically)

Growth phase - Vertical Present Absent

Clark's level I II III IV V

Histological subtype

Lentigo maligna/Lentigo maligna melanoma

Acral lentiginous melanona

Superficial spreading melanoma

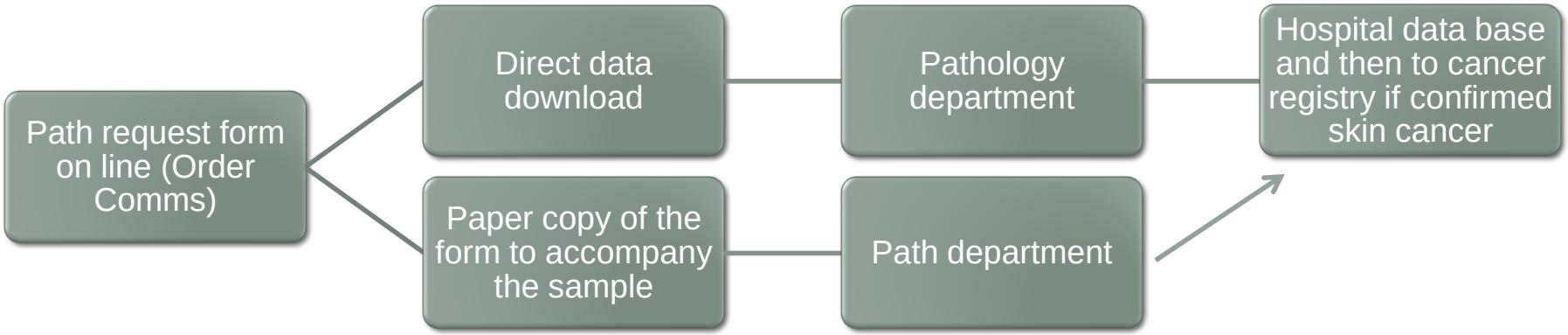
Nodular

Special type → please specify

Ulceration Yes No

Regression Yes No

Angiolymphatic invasion Yes No



Automated data collection arising out of routine clinical practice

Or the MDT coordinators would have to enter the data and that simply does not make sense

What can we do?

- Promotion of use of the proposed national skin lesion pathology request form
  - Which will be available on line shortly
  - For primary care as well as secondary care
- Promotion of adoption of the form (with data fields) by your Trust Order Comms provider
- Promotion of use of histology reporting proformas
  - R College Pathology Performance Standard
- Promotion of IT systems which will allow data merging from Order Comms and Pathology Servers
- Live data entry at MDTs

Second main aim

- To use data on skin cancer to drive up the quality of care
  - To identify variation in outcomes which might suggest better or worse care
    - By network
    - Over time

Quality measures for NMSC

- Mortality from SCC
  - Late diagnosis
    - AJCC stage at diagnosis
  - Treatment times
  - Immunosuppression
  - Inadequate surgery
  - Origin in chronically scarred tissue, epidermolysis bullosa
- Margin of excision for BCC and SCC; efficiency affected by
  - Site
  - Size of the lesion
  - ?Grade of surgeon
- Local recurrence rate

The UK National Histopathology Request form for skin biopsies

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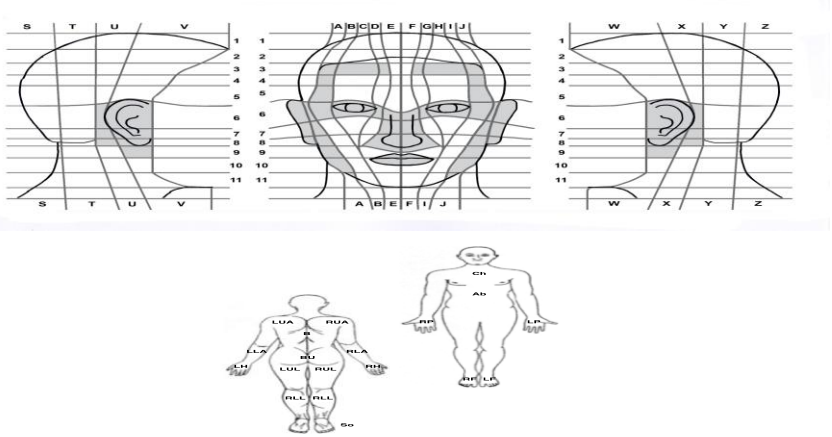

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Free text

Quality measures for melanoma

- Mortality

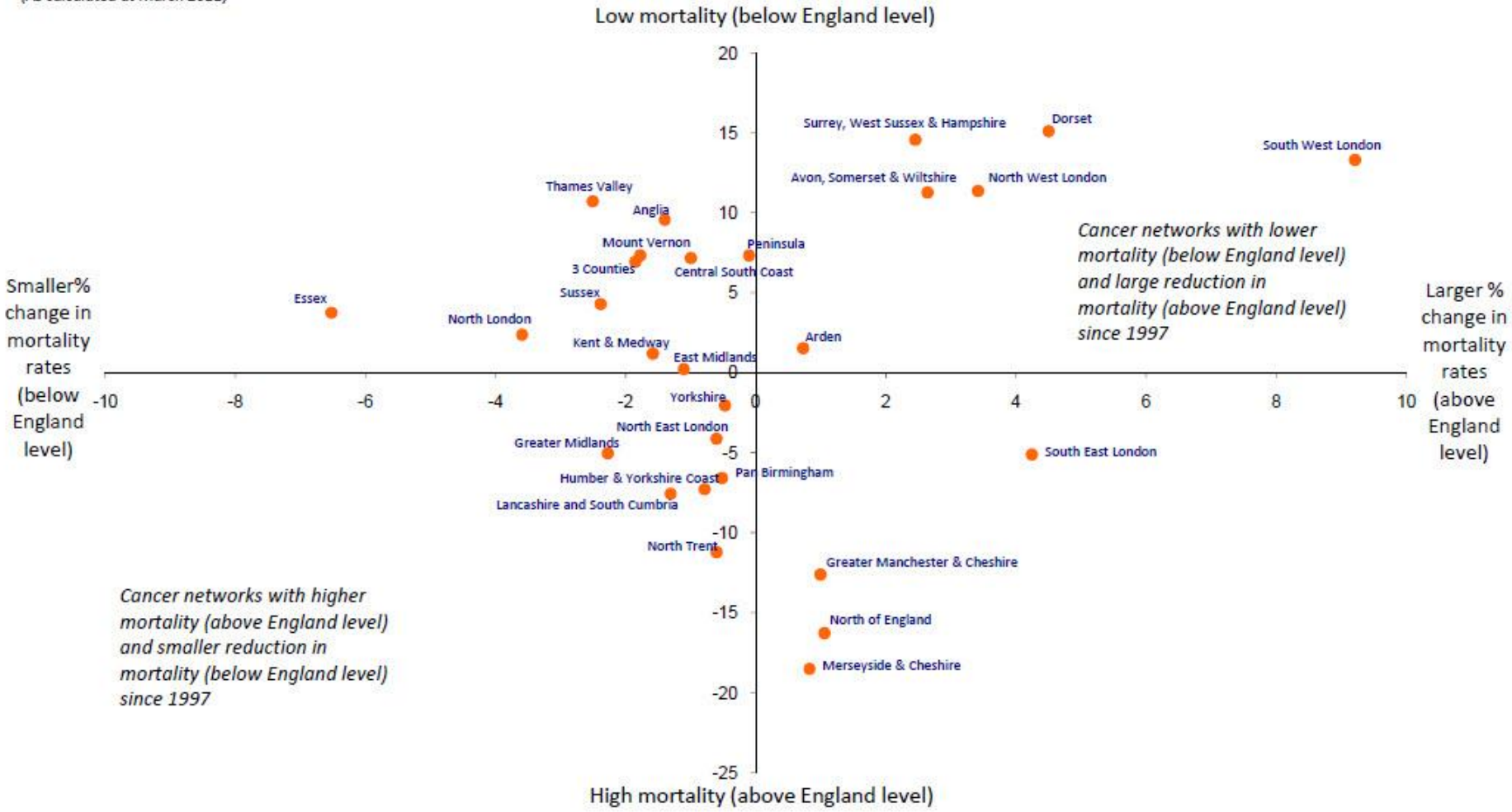
- Treatment measures
  - Margin of excision primary
  - Thickness of the primary
    - Stage at diagnosis AJCC
  - Treatment Times
  - Number (%) offered SNB
  - Number offered adjuvant therapy trials
  - (Number offered adjuvant therapies)
  - Number offered chemotherapy clinical trials
  - Number offered chemotherapy
    - Number offered mutation testing
  - Number offered palliative radiotherapy
  - Measures of quality of life

And the data to answer these questions will follow COSD

Relative change in mortality rates and the level of change in mortality rates since 1997 (compared to England level) by cancer network.

3 year rolling age-standardised mortality rates (2007-2009) for all cancers for 0-74 years age group; % change in mortality rates since 1997

(As calculated at March 2011)

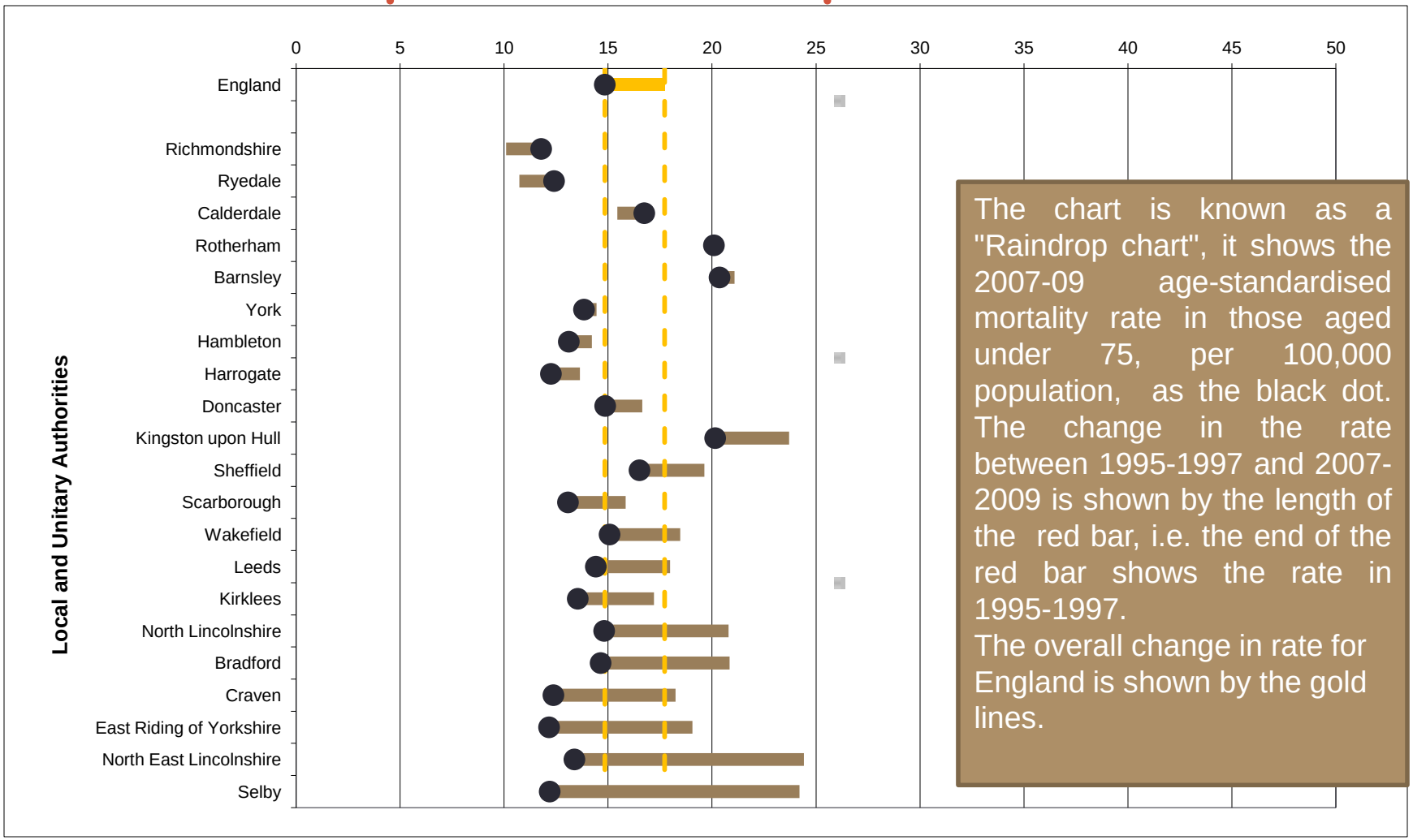


What determines melanoma mortality?

- Ethnic mix
- Early diagnosis ie Stage at diagnosis
- Age and sex
- Tumour site
- Inherited variation in genes governing host-tumour interaction
- Vitamin D levels
- (SNB)
- (Effective adjuvant therapies)
- (Effective chemotherapies)

- Deprivation
  - Psychological factors
  - Poor diet
  - Alcohol and smoking
  - Vitamin D
  - Obesity/metabolic syndrome/ chronic inflammation

Age standardised mortality from upper GI cancer per 100,000 persons



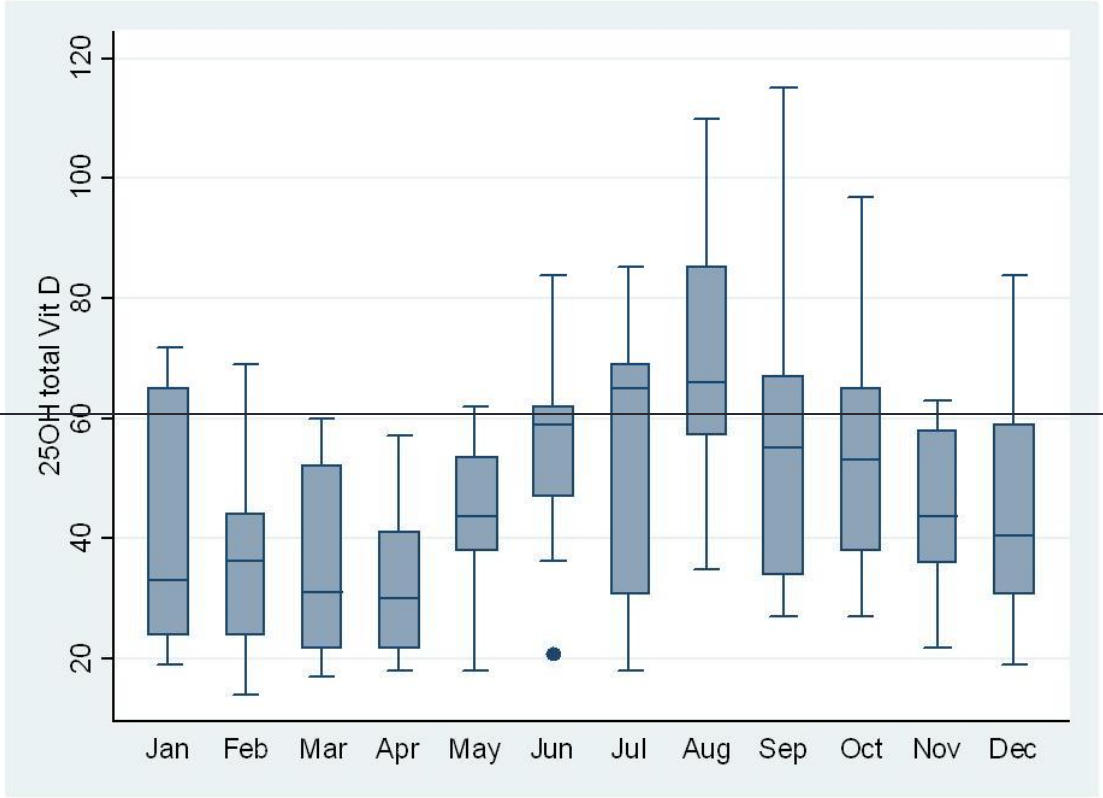
The chart is known as a "Raindrop chart", it shows the 2007-09 age-standardised mortality rate in those aged under 75, per 100,000 population, as the black dot. The change in the rate between 1995-1997 and 2007-2009 is shown by the length of the red bar, i.e. the end of the red bar shows the rate in 1995-1997.

The overall change in rate for England is shown by the gold lines.

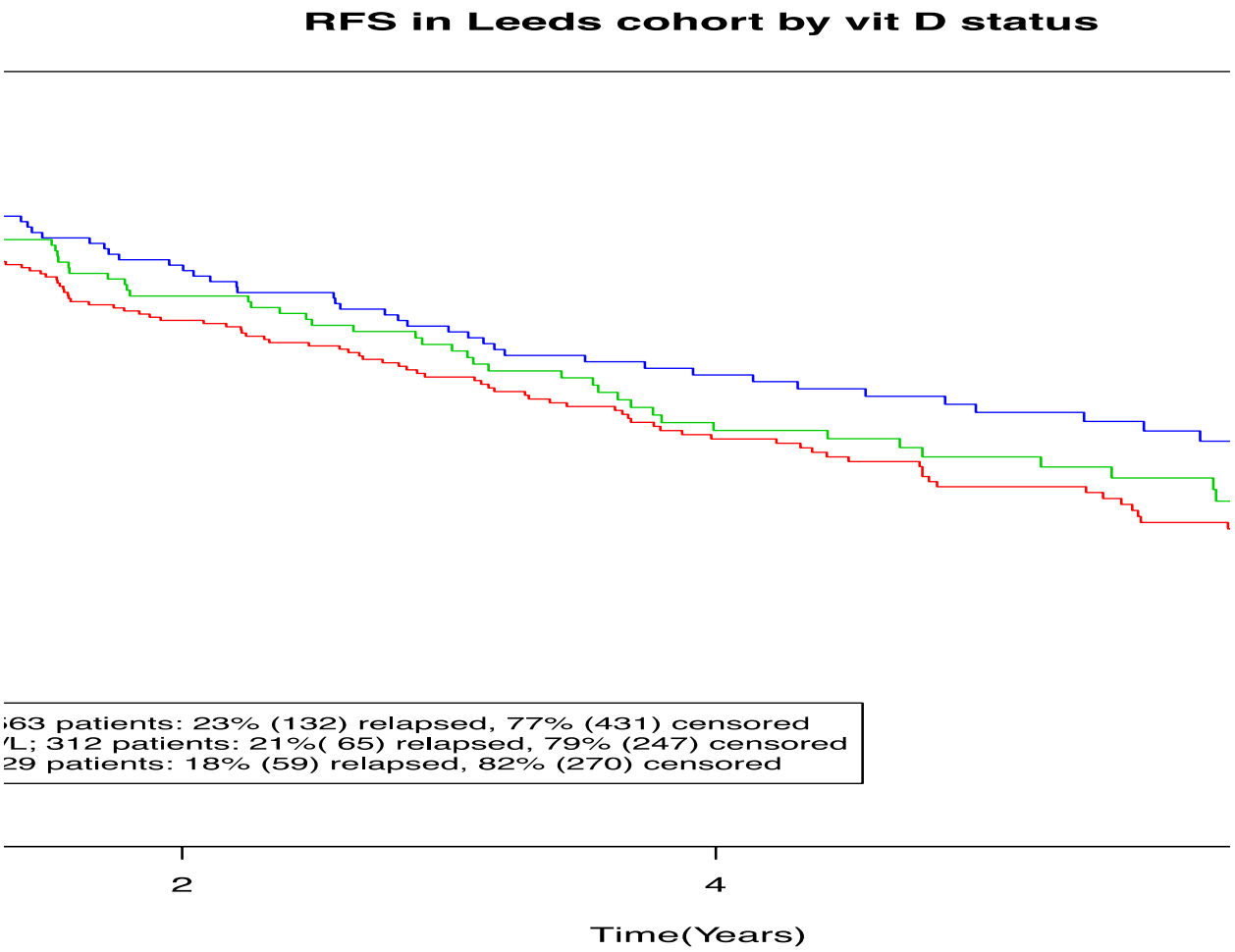
What determines melanoma mortality?

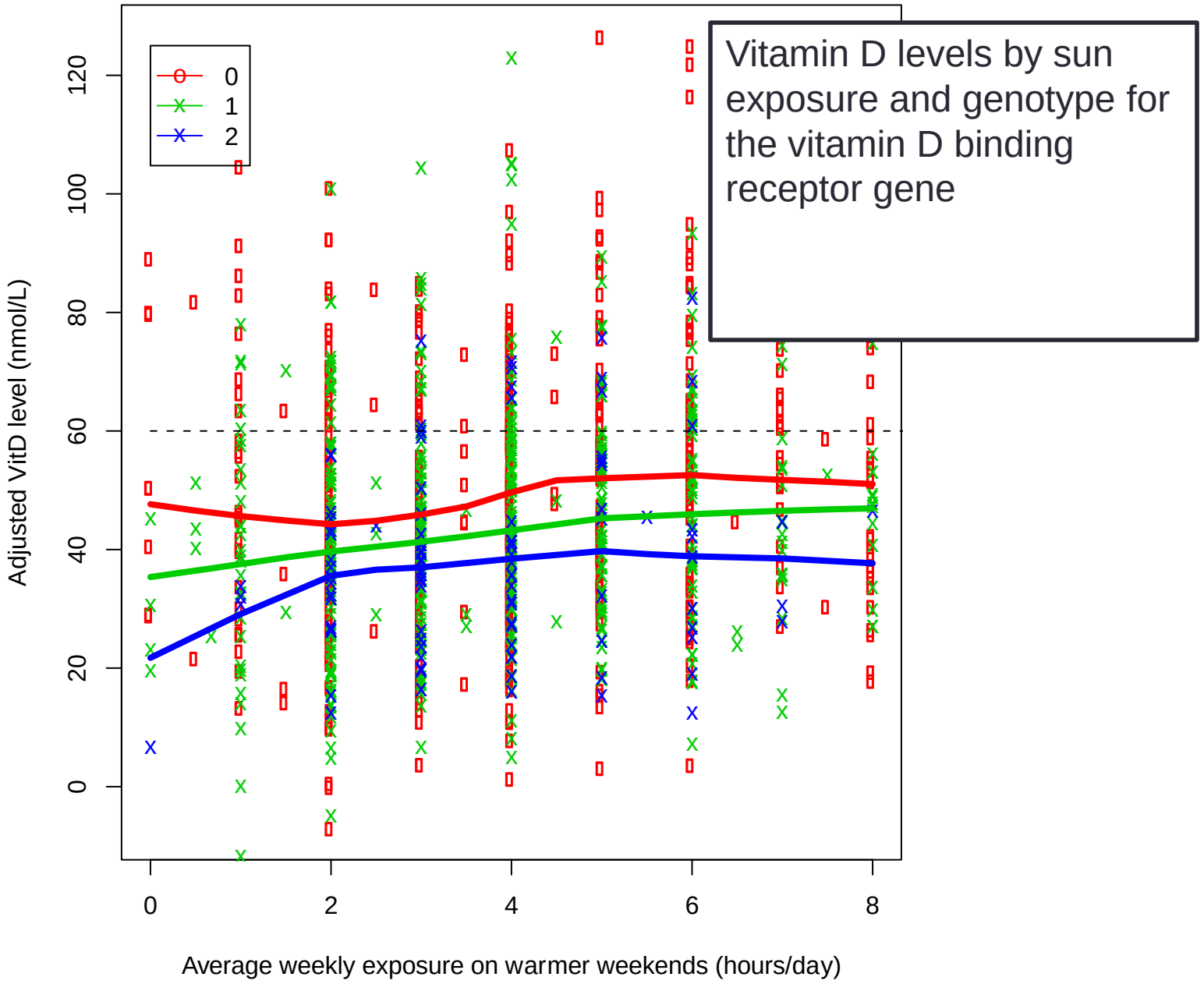
- Early diagnosis
  - May reflect medical services
  - May reflect poverty
  - May reflect biological variation but comparison by region at least reduces this effect EXCEPT…….
- Inherited variation in genes governing host.tumour interaction
- Vitamin D levels

Variation in serum vitamin D measures by month: late relapsing study



Latest survival data




Vitamin D levels by sun exposure and genotype for the vitamin D binding receptor gene
0
1
2
Adjusted VitD level (nmol/L)
0
20
40
60
80
100
120
0
2
4
6
8
Average weekly exposure on warmer weekends (hours/day)

Early diagnosis

- The reasons for failure are not so simple to measure

What determines melanoma mortality?

- Early diagnosis
- Inherited variation in genes governing host.tumour interaction
- Vitamin D levels

- (SNB)
- (Effective adjuvant therapies)
- (Effective chemotherapies)
- Comorbidities

- Deprivation
  - Psychological factors
  - Poor diet
  - Alcohol and smoking
  - Vitamin D
  - Obesity/metabolic syndrome/ chronic inflammation

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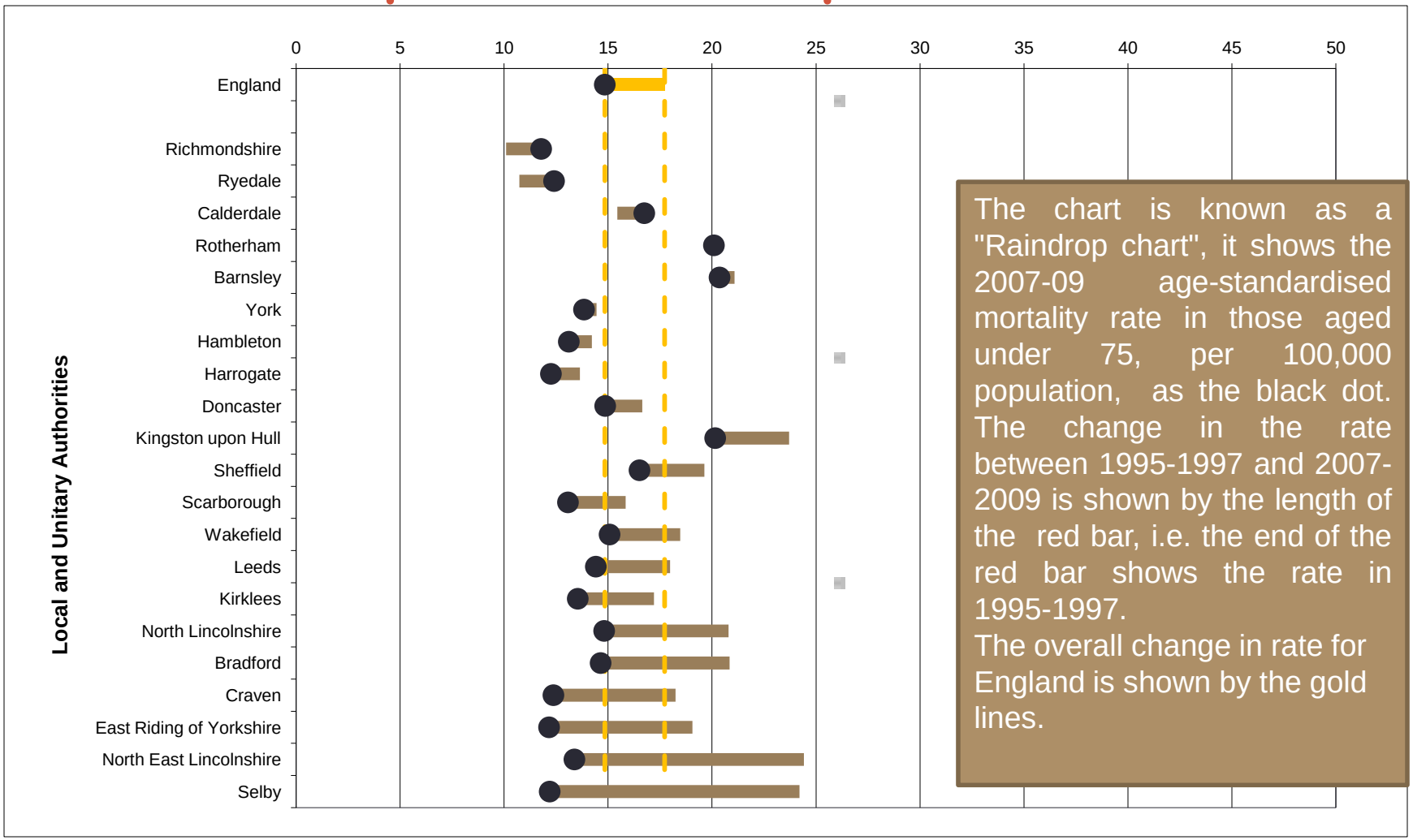

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THANK YOU