



# PROVIDING CANCER INFORMATION AND STATISTICS FOR GP COMMISSIONING CONSORTIA

*"Liberating information, improving outcomes"*  
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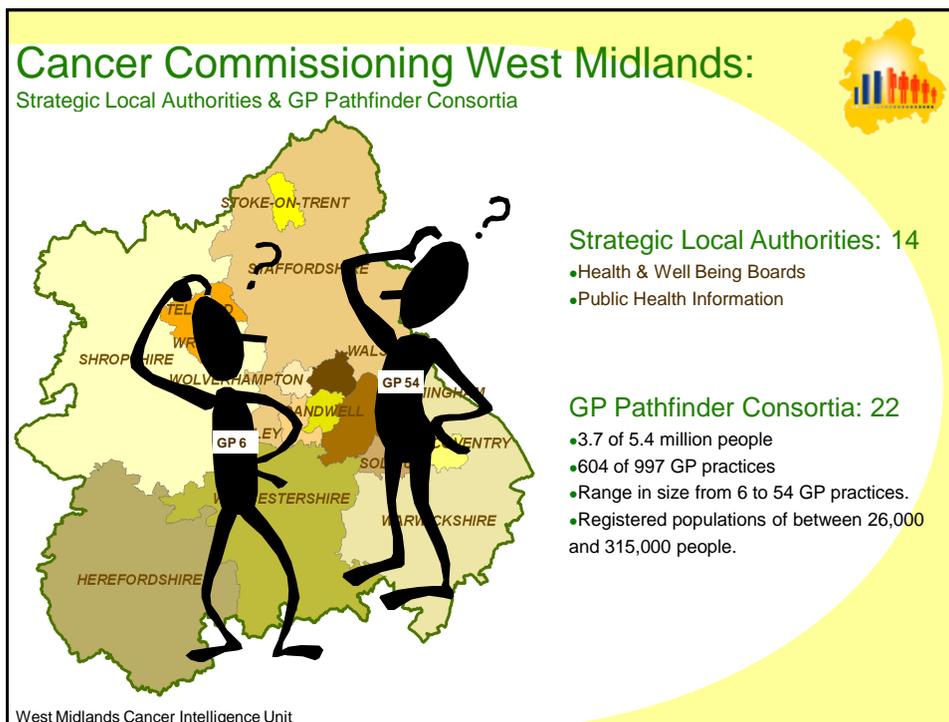
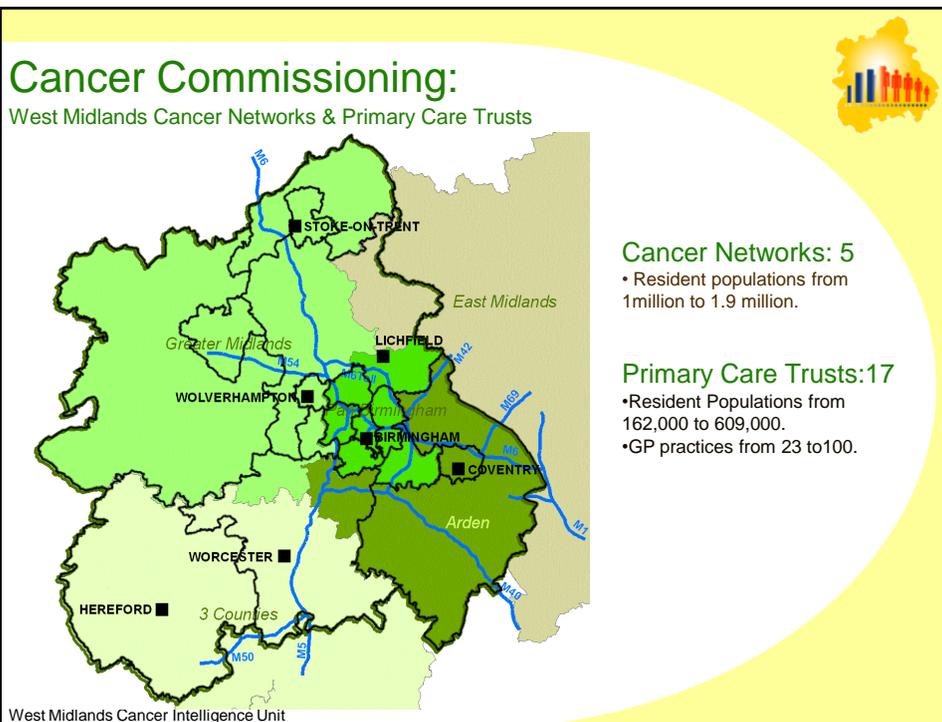
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## Overview

- Primary Care Commissioning
- Calculating cancer statistics for commissioners
  - Cancer Cases
  - Populations
- Case studies
  - Sandwell
  - South Birmingham
  - Dudley
  - Coventry
- Conclusions

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## Cancer statistics for commissioning



To provide **cancer statistics** we need to know both

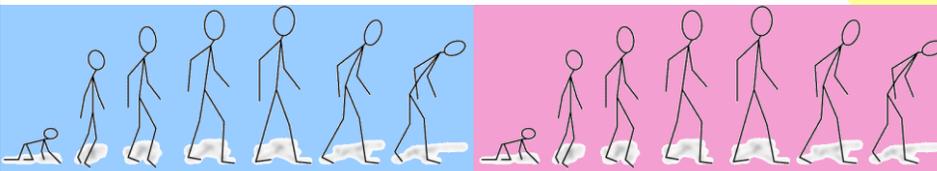
- *the number of people diagnosed with cancer*

AND

- *the total number of people in the population.*

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## Cancer statistics for commissioning



To provide **age standardised rates** we need to know both

- *the sex and age group of every person diagnosed with cancer*

And

- *the sex and age group profile of the total population.*

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## Calculating Cancer Statistics



### Method 1: Registered Patients & GP Populations

Relies on the identification of GP practice in every patient record in the Cancer Registry Database to extract cancer cases.

AND

An aggregate population profile for every GP Consortia based on their GP practice patient lists.

### Method 2: Resident Patients & Populations

Relies on the identification of a geographical extent for each GP consortia. Cancer patients are allocated to the consortia based on their postcode of residence.

AND

An aggregate population profile for geographical extent of each consortia based on standard statistical geographies.

(Office for National Statistics annual mid-year estimates for Lower Super Output Areas).

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## Data Sources



*Both methods will use cases identified in the National Cancer Repository Dataset for cases diagnosed in 2007.*

### Method 1: Registered Cases & GP Populations

Cases:

Extract GP consortia cases based on GP practice code.

Populations:

GP practice patient profiles based on NCIN's Cancer Commissioning toolkit.

### Method 2: Resident Cases & Populations

- Locate all active GP practices identified in CfH Attribution Dataset.

- 1km Buffer around each practice location.

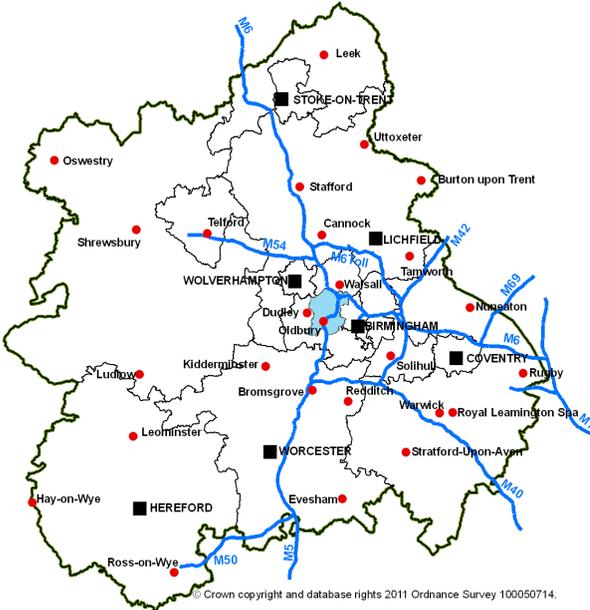
- Identify all statistical areas (LSOAs) that intersect each buffer.

- Aggregate LSOAs to consortia based on GP code.

- Assign cases and population demographics to GP consortia.

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# Case Study 1: Sandwell



Sandwell PCT:

- 66 GP practices
- Population 289,000.

Pathfinder GP Consortia:

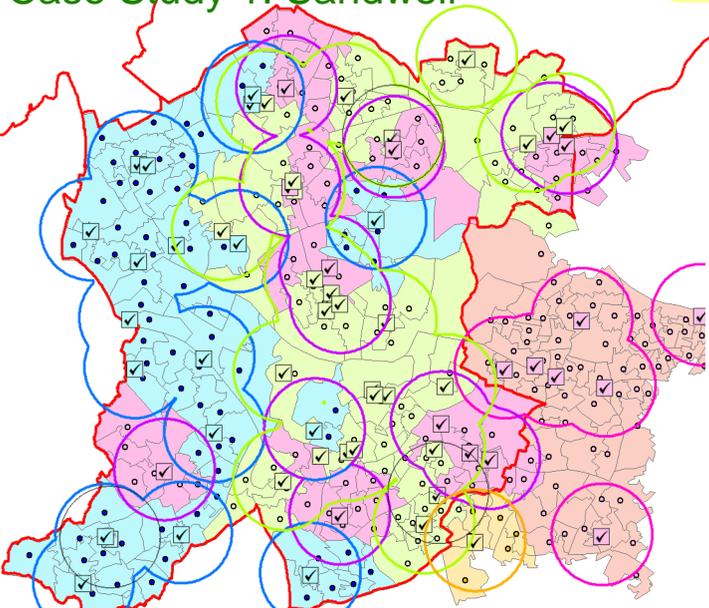
- 33 GP practices
- population 216,000

Potentially 3 GP Consortia:

- Black Country
- HealthWorks
- Sandwell Health Alliance

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# Case Study 1: Sandwell



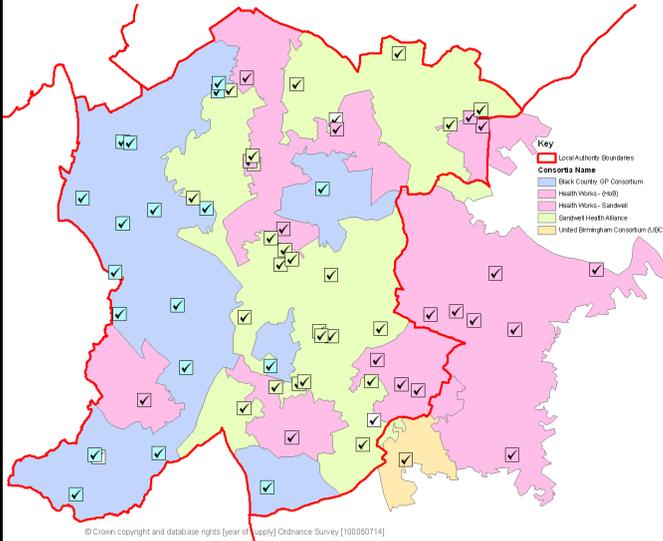
Potentially 3 GP Consortia:

- Black Country
- HealthWorks
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With thanks to:  
Ralph Smith, Sandwell PCT

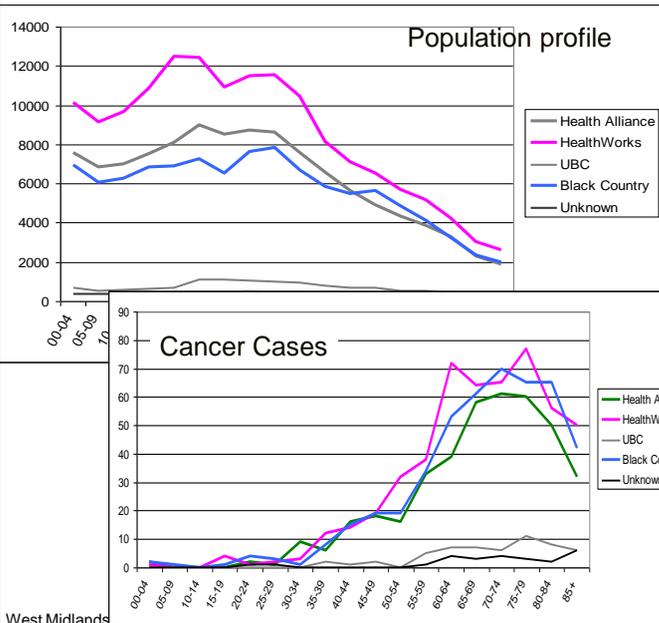
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# Case Study 1: Sandwell



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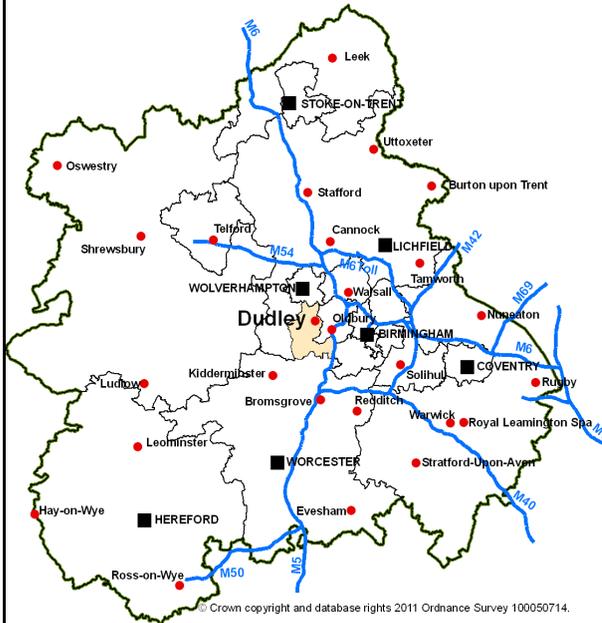
# Case Study 1: Sandwell



Similar population profiles and cases extracted for each consortia and for each method.

Crude incidence rates by registered populations were smaller than for the geographical method.

## Case Study 2: Dudley GP



### Dudley PCT

- 54 GP practices
- population 306,000.

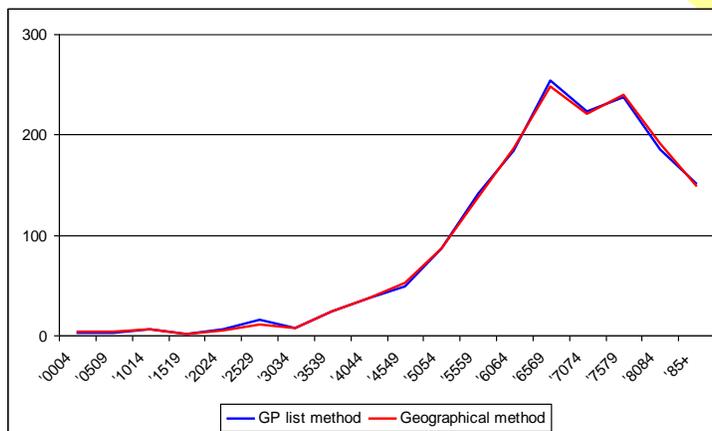
### Dudley GP Consortia

- 54 GP practices
- population 315,000

With thanks to:  
Angela Moss, Dudley PCT

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## Case Study 2: Dudley Cancer cases

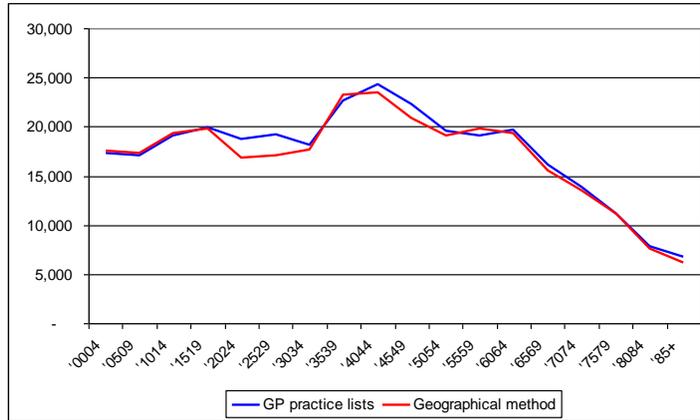


Method 1: All cases diagnosed by a Dudley GP assigned to the consortia: 1611  
Method 2: All cases resident in an LSOA in Dudley (as if it were the PCT): 1607

4 more cases in patients registered with GP in consortia but live outside PCT boundary.

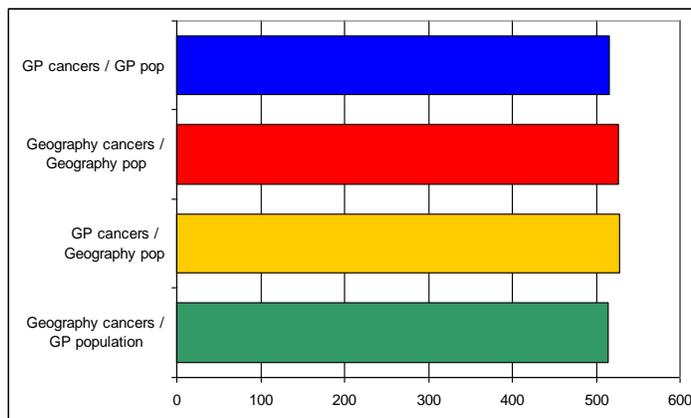
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## Case Study 2: Dudley Population profiles



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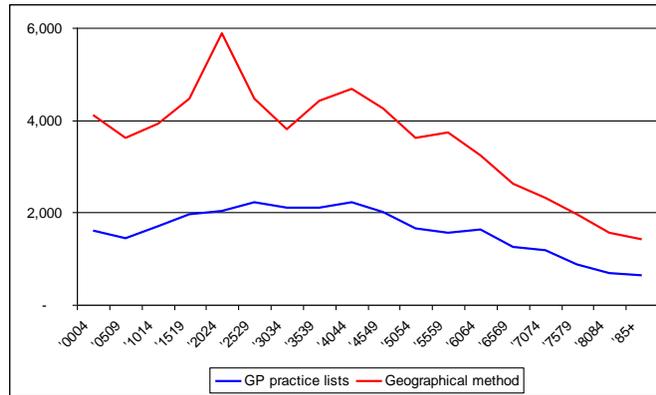
## Case Study 2: Dudley Crude Incidence rates



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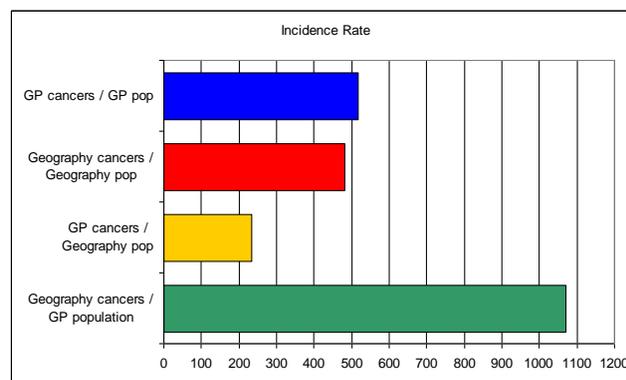


## Case Study 3: SBIC Population profiles

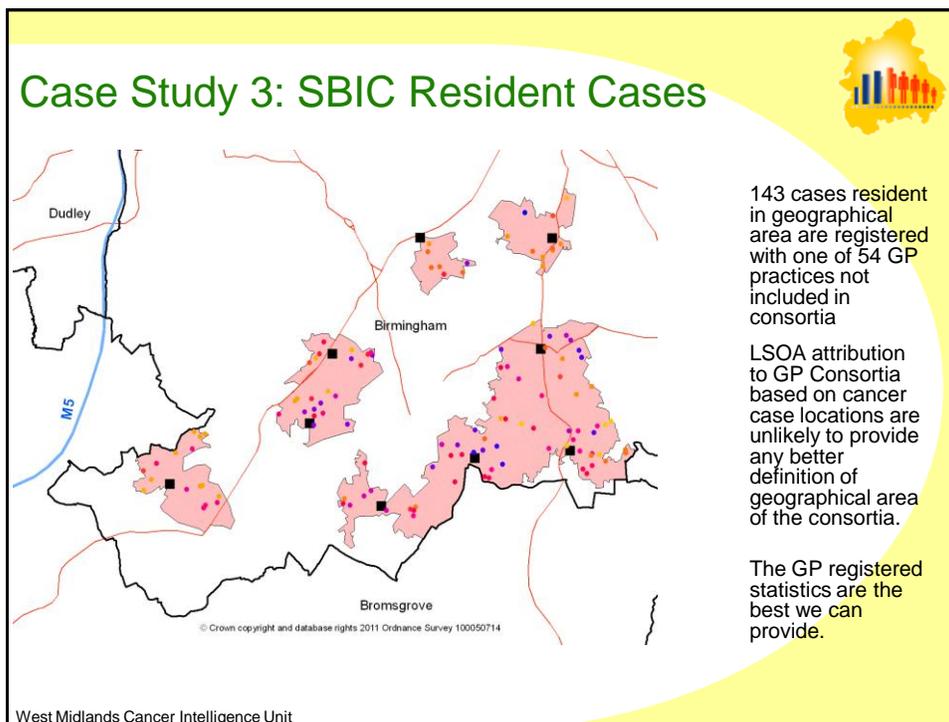
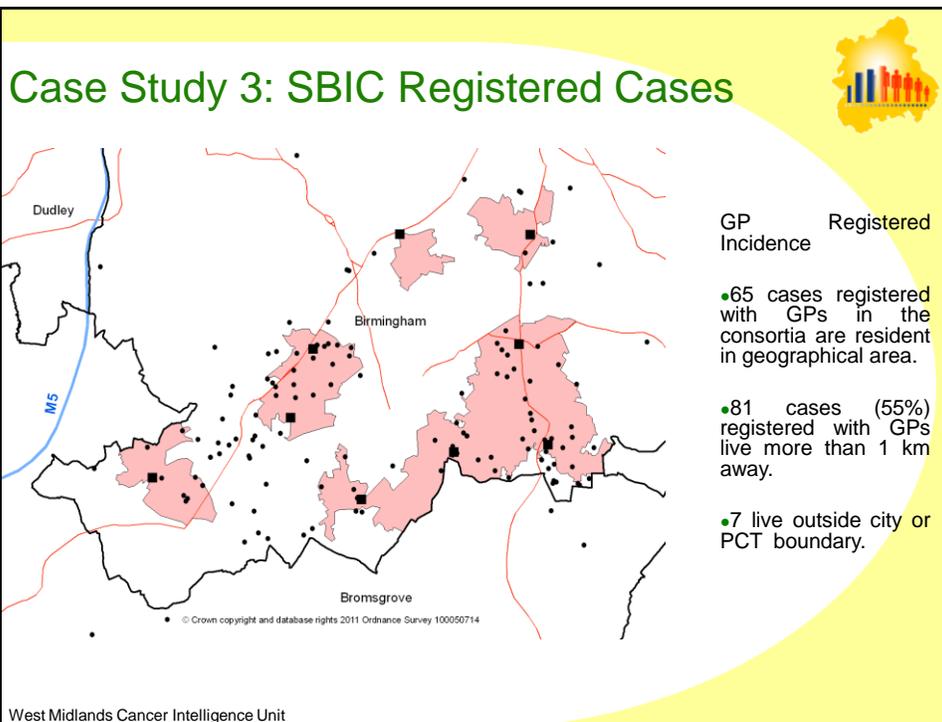


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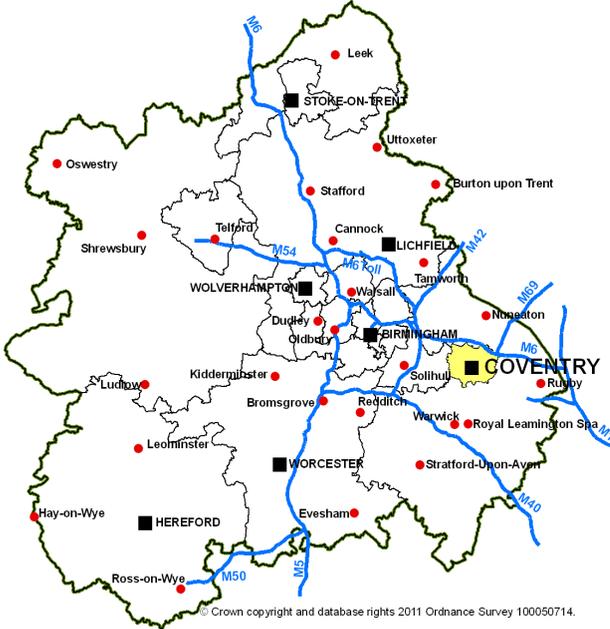
## Case Study 3: SBIC Incidence rates



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## Case Study 4: Coventry



### Coventry PCT:

- 63 GP practices
- Population 310,000
- Coterminous with the Unitary Authority

### Pathfinder GP Consortia:

- 63 GP practices
- Population 360,000

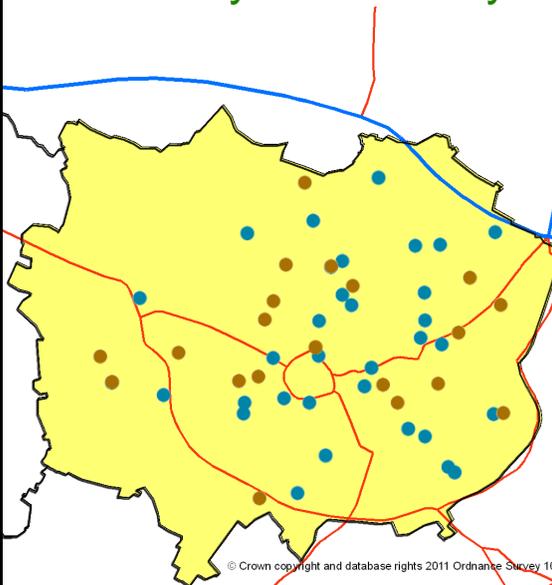
### 2 Pathfinder GP Consortia:

*Godiva*  
*In Spires*

2 practices not included in either consortia.

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## Case Study 4: Coventry



### Godiva:

39 GP practices  
176,000 population

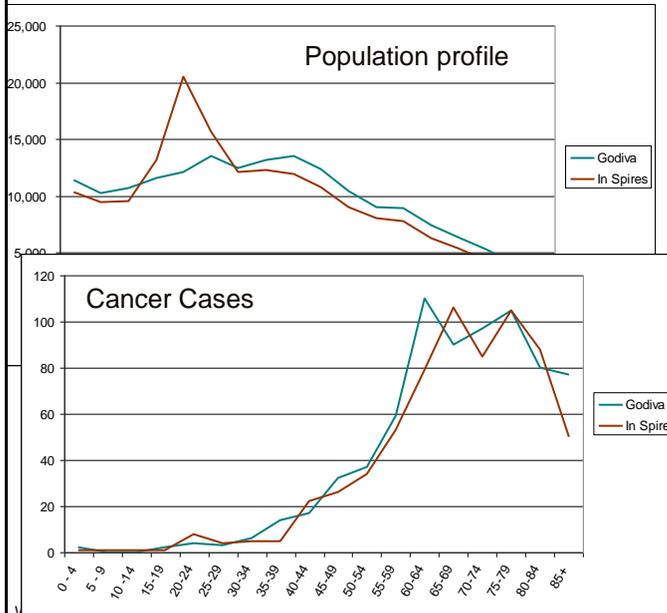
### In Spires:

24 GP Practices  
184,000 population

Detail thanks to:  
Anne Hartley, Coventry PCT

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## Case Study 3: Coventry



### Godiva:

60% GPs  
738 cancer cases  
Incidence rate: 410  
per 100,000

### In Spires:

60% population  
677 cancer cases  
Incidence rate: 372  
per 100,000.

## MORTALITY RATES!



- For cancer cases, we get name and NHS number, which we can match to our database to assign GP code and patient postcode.
- For non-cancer deaths in the population we use the ONS mortality files, these include patient postcode but no unique identifiers. These can be attributed to geographical areas but not GP practice.
- If we use cancer registry death data as our baseline rather than ONS mortality data we would diverge statistically from official UK death statistics.

## Conclusions



### *Method 1: Cancer Statistics for GP Registered Populations*

#### *Advantages:*

- *Accurately allocating patient to GP.*
- *Accurately reflecting the needs of people registered with consortium GPs.*

#### *Disadvantages:*

- *GP Practice has only recently become a mandated item for cancer registry collection so may not be available in older data.*
- *It is difficult to assign old cases to current GP practices especially once dead.*
- *It ignores those residents not registered with a GP.*
- *Counts of GP registered populations are not widely available.*
- *GP registered populations are known to be inflated by up to 10%.*
- *It does not provide a coherent 'geography' which can be visualised and shared easily.*
- *It does not conform to current standards in provision of National Statistics.*

There are significant problems for cancer registries to address if this method were adopted for the provision of routine cancer statistics and our time series data would be severely curtailed.

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## Conclusions



### *Method 2: Cancer Statistics for Resident Populations*

#### *Advantages of defining the geographical extent of each GP consortia:*

- *Use patient postcode as collected since 1980s.*
- *Consistently allocate all new and old cases to these consortia and to strategic local authority areas.*
- *Define all our new geographies in the same way as we define current geographies less risk of disclosure.*
- *Use population estimates consistent with ONS published sources.*
- *Easier to monitor and understand changes through time.*
- *Mitigates against impact of GP list inflation.*
- *Includes everyone in the area whether they are registered with a GP or not.*
- *Is consistent with other ONS National Statistics provision.*

#### *Disadvantages:*

- *It ignores elements of patient choice of GP.*
- *Does not actually include all those people registered with GPs in the consortia.*
- *Includes people registered with GPs not in the consortia.*

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## Conclusion



- Cancer Statistics for GP Consortia based on **registered populations** may reflect patient choice but will also reflect practice list inflation and diverge from official national statistics.
- The smaller the GP consortia group the less reliable cancer statistics will be and greater the risk of disclosure of individual information.
- To provide consistent cancer statistics of national statistics quality both a statistical geographical extent and a denominator population is needed.
- GP Consortia must commission services for patients registered with GP and those resident in area but not registered with a GP to ensure most efficient commissioning of cancer services.