# NHS Equity Indicators

England: 2001/2 - 2011/12

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- This is work arising from the research project: *Health Equity Indicators for the English NHS: Longitudinal whole-population study at small area level. NIHR Health Services and Delivery Research (HSDR) Programme (project number 11/2004/39).*
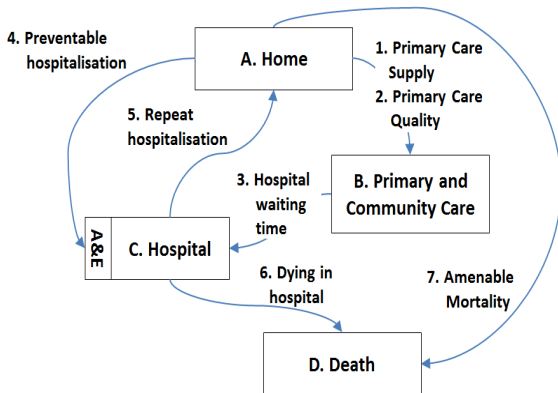
Contents

Introduction

This chartpack provides supporting information for our NHS Equity Dashboards. It presents in-depth information on 8 indicators of socioeconomic inequality in:

- Healthcare access (3 indicators)
- Healthcare outcomes (4 indicators)
- Health (1 indicator)

## Conceptual Framework



Monitoring healthcare inequalities at all stages
of the patient pathway: conceptual framework

# Indicator Definitions

## Indicator Notes

| Indicator Definitions | Inequality Measures |
|---|---|
| **1. Primary care supply:** patients per full time equivalent GP, excluding registrars and retainers[a,b] | **Relative Inequality Index (RII):** This shows the % gap between the most and least deprived neighbourhoods in England as a proportion of the average. |
| **2. Primary care quality:** clinical performance in the quality and outcomes framework (weighted by public health impact) | |
| **3. Hospital waiting time:** days from outpatient decision-to-treat to inpatient admission-for-treatment[c] | A positive **current RII** implies "pro-rich" inequality favouring less deprived areas. |
| **4. Preventable hospitalisation:** proportion of people with an emergency admission for an ambulatory care sensitive condition[a] | A positive **RII trend** implies the mean RII in the last two years is larger (more unequal) than the mean RII in the two years before that. |
| **5. Repeat hospitalisation:** proportion of inpatients with subsequent emergency readmission the same year[a] | |
| **6. Dying in hospital:** proportion of deaths in hospital | A clear **overall inequality trend** requires a statistically significant trend in the same direction for both the RII and the SII ("Slope Index of Inequality") which shows the absolute gap between most and least deprived areas. |
| **7. Amenable mortality:** proportion of people dying from causes considered amenable to health care[a] | |
| **8. Mortality:** proportion of people dying from any cause[a] | **Not clear** means that RII and SII trends are not significant or they move in different directions. |

[a] Adjusted for age and sex each year
[b] Adjusted for neighbourhood ill-health in 2007
[c] Adjusted for patient specialty each year

Socioeconomic inequality

- Socioeconomic inequality is measured using the Index of Multiple Deprivation 2010 for English small areas - 32,482 lower layer super output areas (LSOAs) - which are neighbourhoods of about 1,500 people.
- To provide a simple way of visualising the inequality patterns, these small areas are split into five equally sized national quintile groups, labelled Q1 to Q5, where Q1 is the most deprived fifth (or "poorest", for short).
- We also show "relative" and "slope" indices of inequality based on regression analysis using all of the small areas, with error bars showing 95% confidence intervals.

Population matrix plot
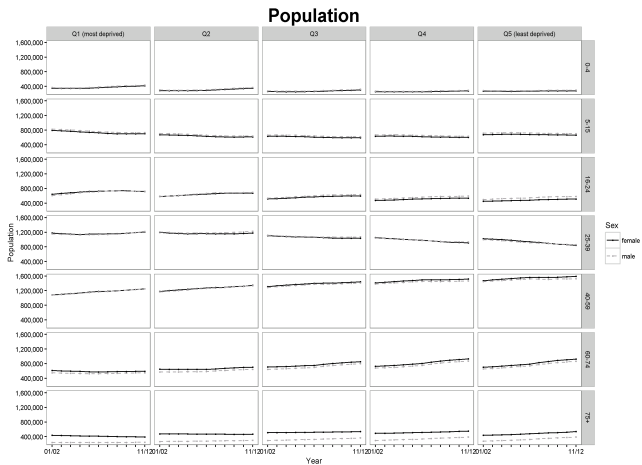


Breakdown by age, sex, deprivation and year

# Population matrix plot (free axis between age groups)
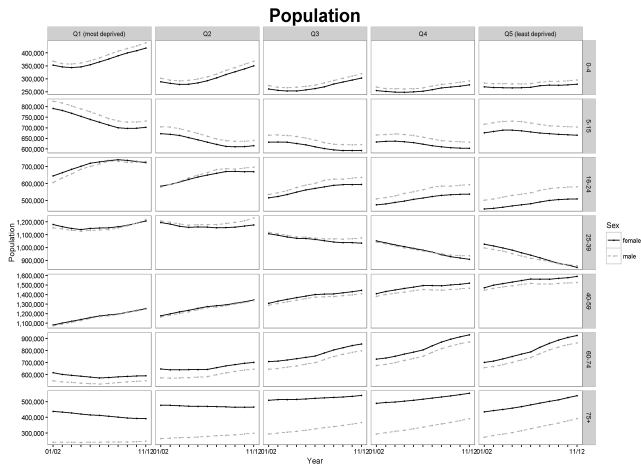


Breakdown by age, sex, deprivation and year

Top 10 CCGs overall (1 = best on equity)

| Rank | CCG |
|------|-----|
| 1 | Fareham and Gosport |
| 2 | Hambleton, Richmondshire and Whitby |
| 3 | Erewash |
| 4 | North Norfolk |
| 5 | Telford & Wrekin |
| 6 | West Hampshire |
| 7 | High Weald Lewes Havens |
| 8 | Southampton |
| 9 | Shropshire |
| 10 | Isle of Wight |

Table: Best performing CCGs in terms of RII: 2011

## Bottom 10 CCGs overall (1 = worst on equity)

| Rank | CCG |
|------|-----|
| 1 | South Manchester |
| 2 | Central Manchester |
| 3 | Blackburn with Darwen |
| 4 | Windsor, Ascot and Maidenhead |
| 5 | Waltham Forest |
| 6 | Blackpool |
| 7 | North Manchester |
| 8 | Newham |
| 9 | Camden |
| 10 | Scarborough and Ryedale |

Table: Worst performing CCGs in terms of RII: 2011

Background
**Healthcare Access**
Healthcare Outcomes
Health

1. Primary Care Supply
2. Primary Care Quality
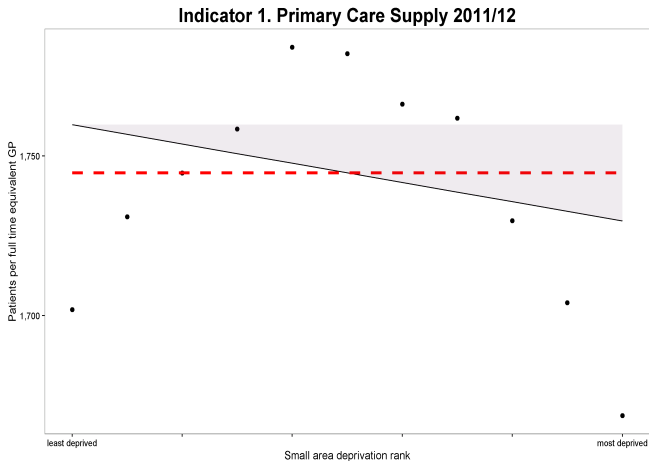3. Hospital Waiting Time

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Indicator 1. Primary Care Supply

Primary Care Supply

- patients per full time equivalent GP, excluding registrars and retainers
- adjusted for age, sex and neighbourhood ill-health using the Carr-Hill workload adjustment
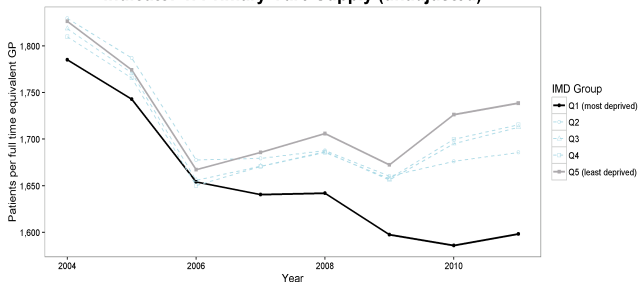
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1. Primary Care Supply
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Equity scatterplot
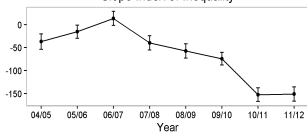


Indicator 1. Primary Care Supply 2011/12

Indicator 1. Primary Care Supply: Patients per full time equivalent GP, excluding registrars and retainers, adjusted for age, sex and health deprivation
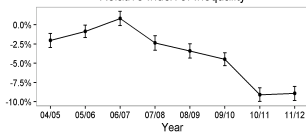
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Equity trend chart unadjusted



Indicator 1. Primary Care Supply: Patients per full time equivalent GP, excluding registrars and retainers

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Health

1. Primary Care Supply
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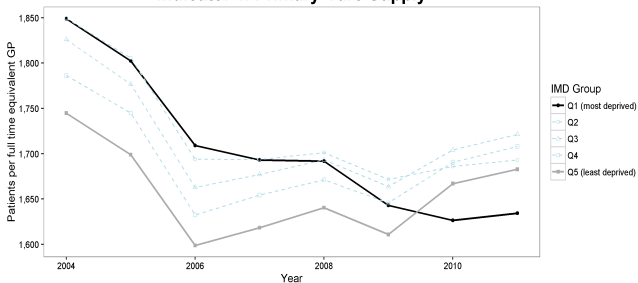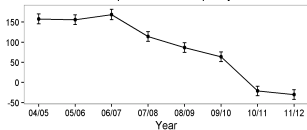Equity trend chart



Indicator 1. Primary Care Supply: Patients per full time equivalent GP, excluding registrars and retainers, adjusted for age, sex and health deprivation

Background
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1. Primary Care Supply
2. Primary Care Quality
3. Hospital Waiting Time

## Equity correlation plot at CCG level



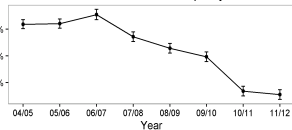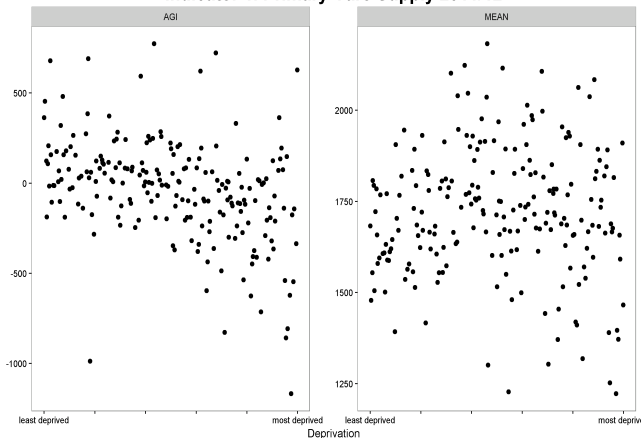Indicator 1. Primary Care Supply: Patients per full time equivalent GP, excluding registrars and retainers, adjusted for age, sex and health deprivation

Background
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1. Primary Care Supply
2. Primary Care Quality
3. Hospital Waiting Time
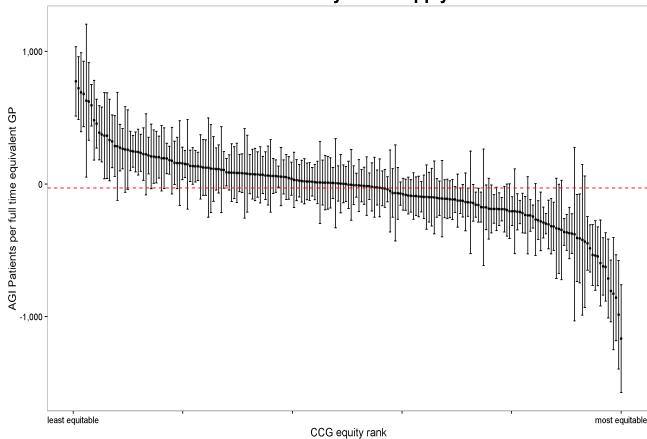
## Equity caterpillar plot at CCG level



**Indicator 1. Primary Care Supply 2011/12**

*Indicator 1. Primary Care Supply: Patients per full time equivalent GP, excluding registrars and retainers, adjusted for age, sex and health deprivation*

Background
**Healthcare Access**
Healthcare Outcomes
Health

1. **Primary Care Supply**
2. Primary Care Quality
3. Hospital Waiting Time

## Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | City and Hackney | -1,166.41 | TRUE |
| 2 | Hambleton, Richmondshire and Whitby | -986.61 | TRUE |
| 3 | Blackpool | -857.67 | TRUE |
| 4 | West London (Kensington and Chelsea, Que | -826.97 | TRUE |
| 5 | Sandwell and West Birmingham | -806.51 | TRUE |
| 6 | Greenwich | -713.50 | TRUE |
| 7 | Southwark | -625.70 | TRUE |
| 8 | Tower Hamlets | -621.37 | TRUE |
| 9 | Lincolnshire East | -595.85 | TRUE |
| 10 | Knowsley | -545.43 | TRUE |

Table: Best performing CCGs in terms of SII: 2011

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Healthcare Access
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Health

1. Primary Care Supply
2. Primary Care Quality
3. Hospital Waiting Time

Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|---|---|---|---|
| 1 | North East Essex | 773.55 | TRUE |
| 2 | Swale | 722.97 | TRUE |
| 3 | South Lincolnshire | 691.32 | TRUE |
| 4 | Bracknell and Ascot | 679.51 | TRUE |
| 5 | Bradford City | 627.91 | TRUE |
| 6 | Southend | 622.19 | TRUE |
| 7 | Basildon and Brentwood | 593.93 | TRUE |
| 8 | Richmond | 480.87 | TRUE |
| 9 | Surrey Downs | 454.71 | TRUE |
| 10 | Stafford and Surrounds | 386.20 | TRUE |

Table: Worst performing CCGs in terms of SII: 2011

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Indicator 2. Primary Care Quality

Primary Care Quality

- clinical performance in the quality and outcomes framework (weighted by public health impact)

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3. Hospital Waiting Time

# PHIS Definition

| Summary description of indicator | Crude prevalence per 100 000 registered patients - mean (SD) | Annual mortality reduction per 100 000 registered patients | Weight in PHIS |
|---|---|---|---|
| Diabetes: influenza vaccination | 4420 (1881) | 63.7 | 0.158 |
| CHD: influenza vaccination | 3448 (1487) | 61.6 | 0.153 |
| Hypertension: BP ≤150/90 mmHg | 13 548 (5117) | 48.2 | 0.120 |
| CHD: beta-blocker treatment | 3448 (1487) | 45.9 | 0.114 |
| Stroke/TIA: influenza vaccination | 1649 (967) | 28.1 | 0.070 |
| Diabetes: HbA1c ≤7.0% | 4420 (1881) | 26.5 | 0.066 |
| COPD: influenza vaccination | 1626 (958) | 24.9 | 0.062 |
| CHD: aspirin or other antithrombotic therapy | 3448 (1487) | 24.8 | 0.061 |
| CHD: cholesterol ≤5.0 mmol/l | 3448 (1487) | 15.8 | 0.039 |
| Stroke (non-haemorrhagic): aspirin or other antithrombotic | 1080 (649) | 15.8 | 0.039 |
| Diabetes: BP ≤145/85 mmHg | 4420 (1881) | 13.5 | 0.033 |
| CHD: BP ≤150/90 mmHg | 3448 (1487) | 11.3 | 0.028 |
| CHD, stroke/TIA, hypertension, DM, CKD, COPD, asthma, psychosis: smoking cessation advice | 3903 (2525) | 10.9 | 0.027 |
| Diabetes: HbA1c ≤9.0% | 4420 (1881) | 7.4 | 0.018 |
| Diabetes with proteinuria or microalbuminuria: ACEI or ARB therapy | 505 (513) | 3.4 | 0.008 |
| CHD (myocardial infarction): ACEI or ARB therapy | 572 (291) | 1.5 | 0.004 |

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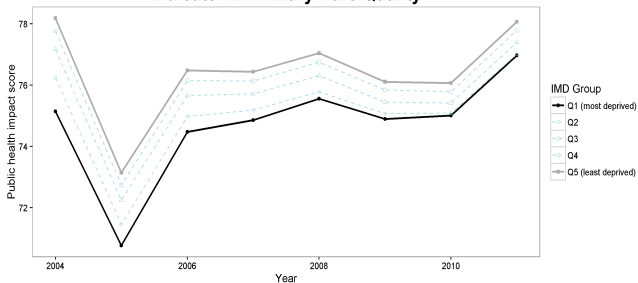
## Equity scatterplot (inverted scale)



Indicator 2. Primary Care Quality 2011/12
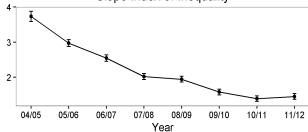
Indicator 2. Primary Care Quality: clinical performance in the quality and outcomes framework (weighted by public health impact)
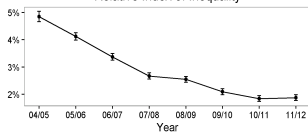
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## Equity trend chart
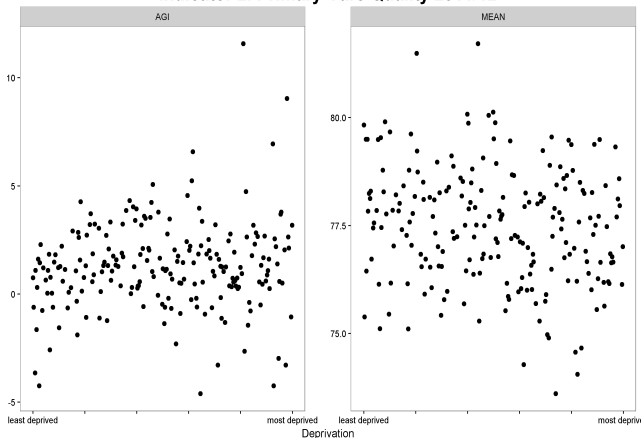


Indicator 2. Primary Care Quality: clinical performance in the quality and outcomes framework (weighted by public health impact)

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1. Primary Care Supply
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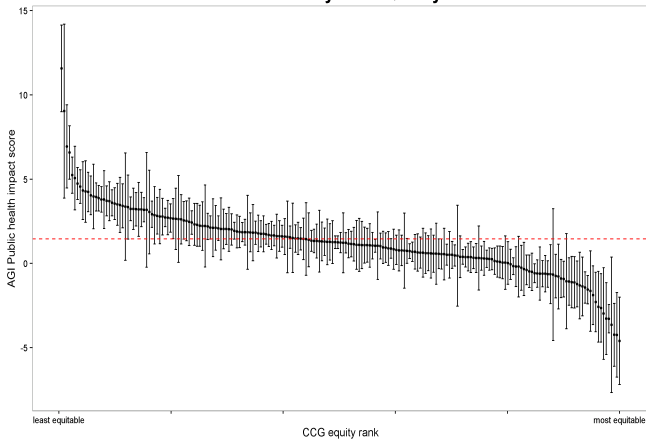## Equity correlation plot at CCG level



**Indicator 2. Primary Care Quality 2011/12**

Indicator 2. Primary Care Quality: clinical performance in the quality and outcomes framework (weighted by public health impact)

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## Equity caterpillar plot at CCG level



Indicator 2. Primary Care Quality: clinical performance in the quality and outcomes framework (weighted by public health impact)

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1. Primary Care Supply
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Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | Slough | -4.60 | TRUE |
| 2 | Bracknell and Ascot | -4.24 | TRUE |
| 3 | Waltham Forest | -4.24 | TRUE |
| 4 | Surrey Heath | -3.64 | TRUE |
| 5 | City and Hackney | -3.28 | TRUE |
| 6 | West London (Kensington and Chelsea, Que | -3.28 | TRUE |
| 7 | Islington | -2.97 | TRUE |
| 8 | Southwark | -2.64 | TRUE |
| 9 | Newbury and District | -2.58 | TRUE |
| 10 | Hounslow | -2.30 | TRUE |

Table: Best performing CCGs in terms of SII: 2011

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1. Primary Care Supply
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Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|---|---|---|---|
| 1 | Brent | 11.58 | TRUE |
| 2 | Newham | 9.04 | TRUE |
| 3 | South Manchester | 6.94 | TRUE |
| 4 | Southend | 6.59 | TRUE |
| 5 | Greater Huddersfield | 5.24 | TRUE |
| 6 | Thurrock | 5.07 | TRUE |
| 7 | South Sefton | 4.74 | TRUE |
| 8 | Croydon | 4.56 | TRUE |
| 9 | Havering | 4.32 | TRUE |
| 10 | West Suffolk | 4.27 | TRUE |

Table: Worst performing CCGs in terms of SII: 2011

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1. Primary Care Supply
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3. Hospital Waiting Time
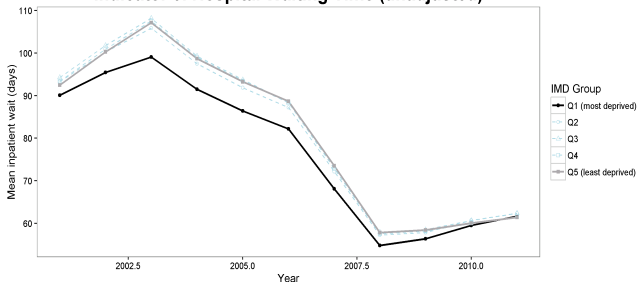
Indicator 3. Hospital Waiting Time

Hospital Waiting Time

- days from outpatient decision-to-treat to inpatient admission-for-treatment
- excludes "planned appointments" where wait scheduled for medical reasons
- excludes waits longer than 12 months
- adjusted for speciality of consultant responsible for admission episode (over 100 mainspef codes)

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1. Primary Care Supply
2. Primary Care Quality
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## Equity scatterplot



Indicator 3. Hospital Waiting Time 2011/12

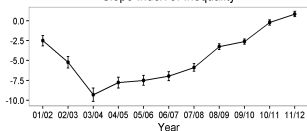Indicator 3. Hospital Waiting Time: days from outpatient decision-to-treat to inpatient admission-for-treatment adjusted for specialty
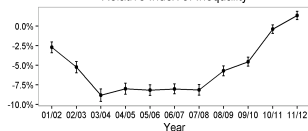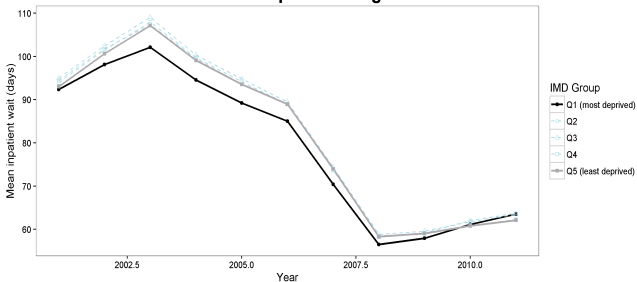
Background
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1. Primary Care Supply
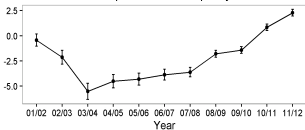2. Primary Care Quality
3. Hospital Waiting Time

Equity trend chart unadjusted



Indicator 3. Hospital Waiting Time: days from outpatient decision-to-treat to inpatient admission-for-treatment

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1. Primary Care Supply
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Equity trend chart



Indicator 3. Hospital Waiting Time

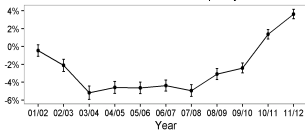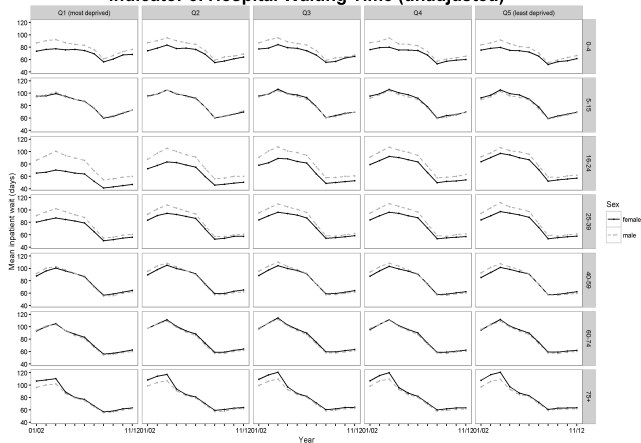Indicator 3. Hospital Waiting Time: days from outpatient decision-to-treat to inpatient admission-for-treatment adjusted for specialty

Background
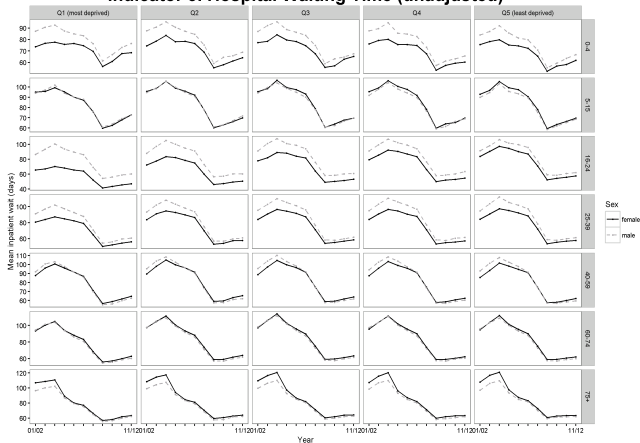**Healthcare Access**
Healthcare Outcomes
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1. Primary Care Supply
2. Primary Care Quality
**3. Hospital Waiting Time**

Equity matrix plot



**Indicator 3. Hospital Waiting Time (unadjusted)**

Breakdown by age, sex, deprivation and year

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1. Primary Care Supply
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3. Hospital Waiting Time

## Equity matrix plot (free axis between age groups)



**Indicator 3. Hospital Waiting Time (unadjusted)**

Breakdown by age, sex, deprivation and year

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1. Primary Care Supply
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3. Hospital Waiting Time

## Equity correlation plot at CCG level



Indicator 3. Hospital Waiting Time 2011/12

Indicator 3. Hospital Waiting Time: days from outpatient decision-to-treat to inpatient admission-for-treatment adjusted for specialty

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1. Primary Care Supply
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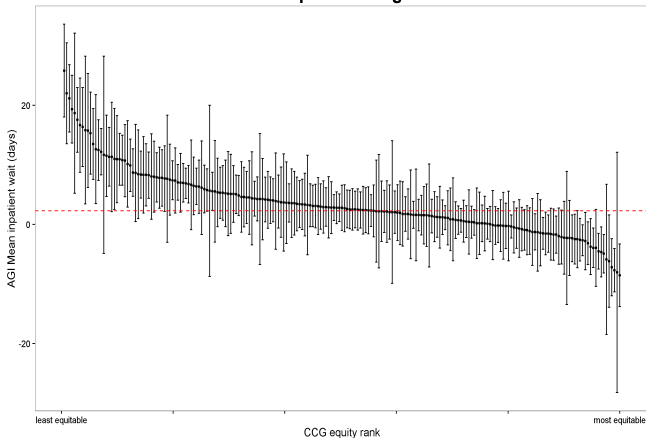
## Equity caterpillar plot at CCG level



**Indicator 3. Hospital Waiting Time 2011/12**

*Indicator 3. Hospital Waiting Time: days from outpatient decision-to-treat to inpatient admission-for-treatment adjusted for specialty*

Background
Healthcare Access
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1. Primary Care Supply
2. Primary Care Quality
3. Hospital Waiting Time

Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|---|---|---|---|
| 1 | Nottingham City | -8.54 | TRUE |
| 2 | Bradford City | -8.06 | FALSE |
| 3 | South Devon and Torbay | -7.70 | TRUE |
| 4 | North Derbyshire | -7.20 | TRUE |
| 5 | Hounslow | -6.18 | TRUE |
| 6 | Lewisham | -5.89 | FALSE |
| 7 | Rotherham | -4.93 | TRUE |
| 8 | Portsmouth | -4.63 | TRUE |
| 9 | South Tees | -4.51 | TRUE |
| 10 | Cannock Chase | -3.96 | FALSE |

Table: Best performing CCGs in terms of SII: 2011

Background
Healthcare Access
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1. Primary Care Supply
2. Primary Care Quality
3. Hospital Waiting Time

Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|---:|---|---|---|
| 1 | North Manchester | 25.80 | TRUE |
| 2 | Haringey | 22.01 | TRUE |
| 3 | Redbridge | 21.15 | TRUE |
| 4 | West London (Kensington and Chelsea, Que | 19.34 | TRUE |
| 5 | Barking & Dagenham | 18.66 | TRUE |
| 6 | West Essex | 17.54 | TRUE |
| 7 | Central Manchester | 16.65 | TRUE |
| 8 | Surrey Heath | 16.34 | TRUE |
| 9 | Islington | 15.82 | TRUE |
| 10 | Central London (Westminster) | 15.74 | TRUE |

Table: Worst performing CCGs in terms of SII: 2011

Background
Healthcare Access
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4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
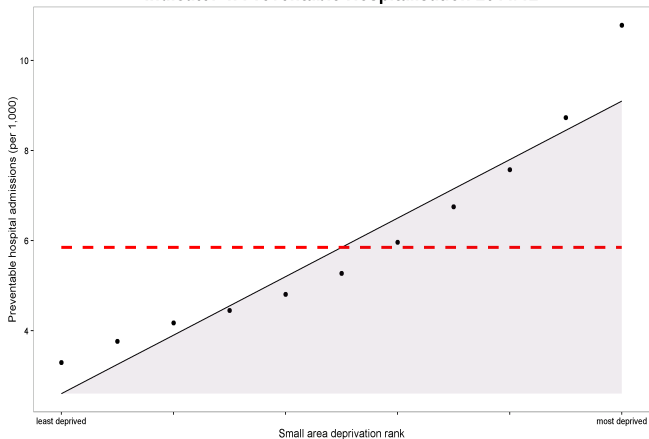7. Amenable Mortality

## Contents

## Indicator 4. Preventable Hospitalisation

Preventable Hospitalisation

- number of people per 1,000 population having one or more emergency hospitalisations for an ambulatory care sensitive condition

- adjusted for age and sex

- preventable defined according to the NHS outcomes framework definition for indicator: NHS OF 2.3.i

Background
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4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
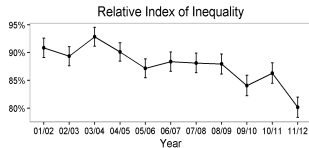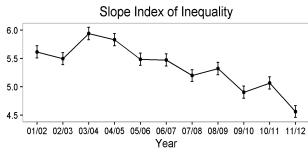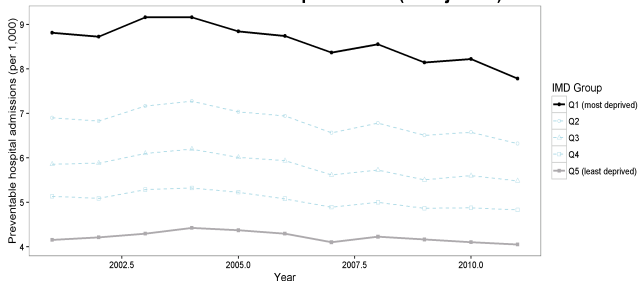7. Amenable Mortality

# Equity scatterplot
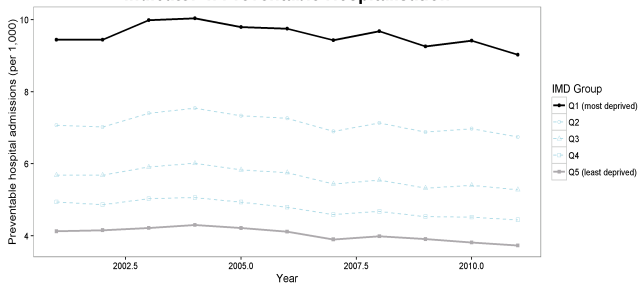


Indicator 4. Preventable Hospitalisation 2011/12

Indicator 4. Preventable Hospitalisation: hospitalisations per 1,000 population for conditions amenable to healthcare adjusted for age and sex

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Healthcare Access
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4. Preventable Hospitalisation
5. Repeat Hospitalisation
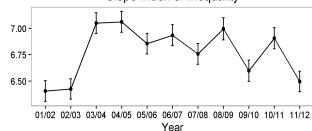6. Dying in Hospital
7. Amenable Mortality

Equity trend chart unadjusted



Indicator 4. Preventable Hospitalisation: hospitalisations per 1,000 population for conditions amenable to healthcare

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4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity trend chart



Indicator 4. Preventable Hospitalisation: hospitalisations per 1,000 population for conditions amenable to healthcare adjusted for age and sex

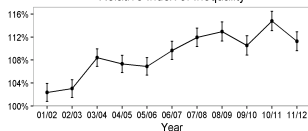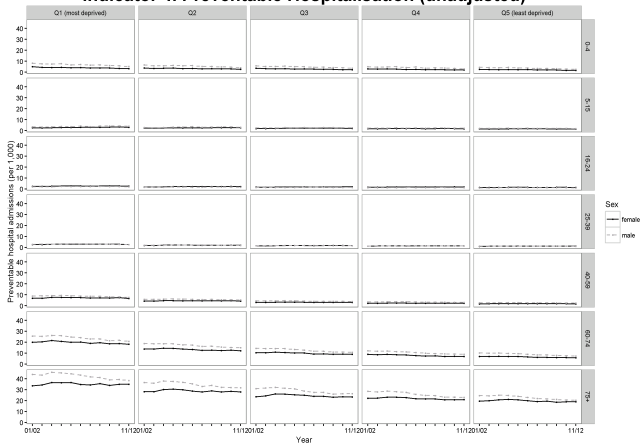Background
Healthcare Access
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**4. Preventable Hospitalisation**
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

## Equity matrix plot



Indicator 4. Preventable Hospitalisation (unadjusted)

Breakdown by age, sex, deprivation and year

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4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

## Equity matrix plot (free axis between age groups)



Indicator 4. Preventable Hospitalisation (unadjusted)

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity correlation plot at CCG level



Indicator 4. Preventable Hospitalisation: hospitalisations per 1,000 population for conditions amenable to healthcare adjusted for age and sex
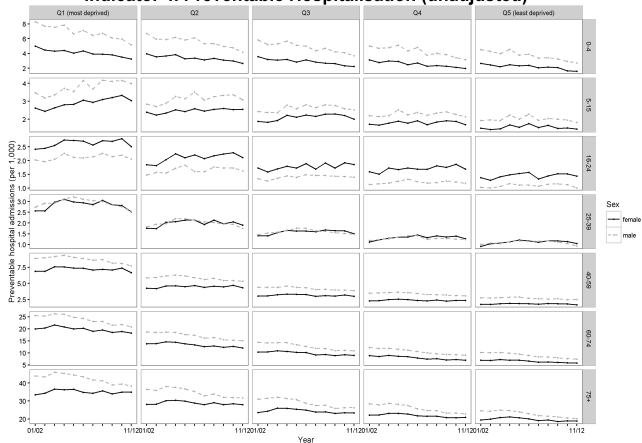
## Equity caterpillar plot at CCG level



Indicator 4. Preventable Hospitalisation: hospitalisations per 1,000 population for conditions amenable to healthcare adjusted for age and sex

Background
Healthcare Access
**Healthcare Outcomes**
Health

**4. Preventable Hospitalisation**
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|---:|---|---|---|
| 1 | Crawley | 1.25 | TRUE |
| 2 | City and Hackney | 1.35 | TRUE |
| 3 | North Somerset | 1.41 | TRUE |
| 4 | East Surrey | 1.46 | TRUE |
| 5 | Isle of Wight | 2.13 | TRUE |
| 6 | Fareham and Gosport | 2.51 | TRUE |
| 7 | North, East, West Devon | 2.62 | TRUE |
| 8 | North Norfolk | 2.73 | TRUE |
| 9 | Newham | 2.82 | FALSE |
| 10 | Hambleton, Richmondshire and Whitby | 2.85 | TRUE |

Table: Best performing CCGs in terms of SII: 2011

## Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|-----:|-----|----:|-------------|
| 1 | North Manchester | 17.85 | TRUE |
| 2 | Bradford City | 17.40 | FALSE |
| 3 | Central Manchester | 16.32 | TRUE |
| 4 | Birmingham South and Central | 13.31 | TRUE |
| 5 | Lewisham | 12.51 | TRUE |
| 6 | Waltham Forest | 12.28 | TRUE |
| 7 | Sandwell and West Birmingham | 12.09 | TRUE |
| 8 | Blackburn with Darwen | 12.02 | TRUE |
| 9 | Heywood, Middleton & Rochdale | 11.78 | TRUE |
| 10 | South Manchester | 11.75 | TRUE |

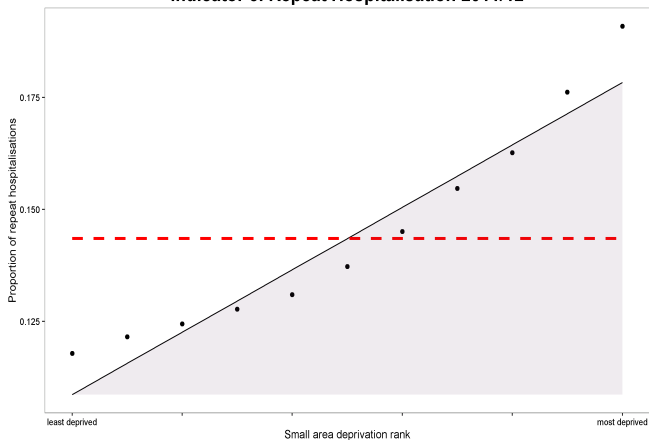Table: Worst performing CCGs in terms of SII: 2011

Indicator 5. Repeat Hospitalisation

Repeat hospitalisation

- proportion of inpatients with subsequent emergency readmission the same year
- adjusted for age and sex

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
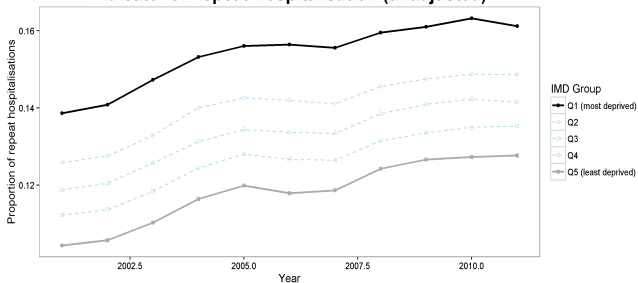7. Amenable Mortality

# Equity scatterplot



**Indicator 5. Repeat Hospitalisation 2011/12**

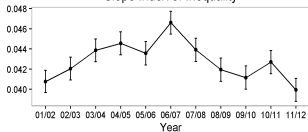Indicator 5. Repeat Hospitalisation: proportion of inpatients with subsequent emergency readmission the same year adjusted for age and sex

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
**5. Repeat Hospitalisation**
6. Dying in Hospital
7. Amenable Mortality

# Equity trend chart unadjusted



Indicator 5. Repeat Hospitalisation: proportion of inpatients with subsequent emergency readmission the same year

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
**5. Repeat Hospitalisation**
6. Dying in Hospital
7. Amenable Mortality

Equity trend chart



**Indicator 5. Repeat Hospitalisation**

Indicator 5. Repeat Hospitalisation: proportion of inpatients with subsequent emergency readmission the same year adjusted for age and sex

Background
Healthcare Access
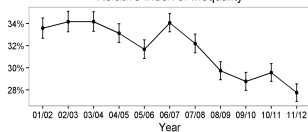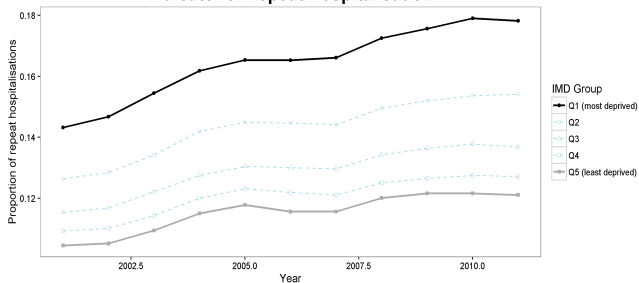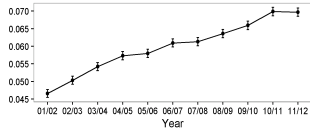**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity matrix plot



**Indicator 5. Repeat Hospitalisation (unadjusted)**

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
**5. Repeat Hospitalisation**
6. Dying in Hospital
7. Amenable Mortality

## Equity matrix plot (free axis between age groups)



**Indicator 5. Repeat Hospitalisation (unadjusted)**

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

## Equity correlation plot at CCG level



Indicator 5. Repeat Hospitalisation 2011/12

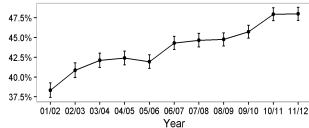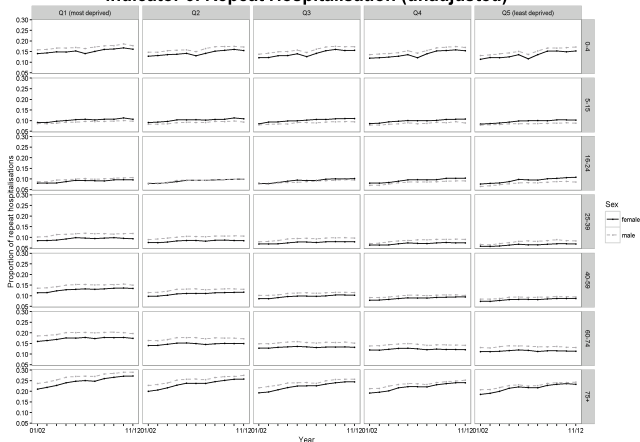Indicator 5. Repeat Hospitalisation: proportion of inpatients with subsequent emergency readmission the same year adjusted for age and sex
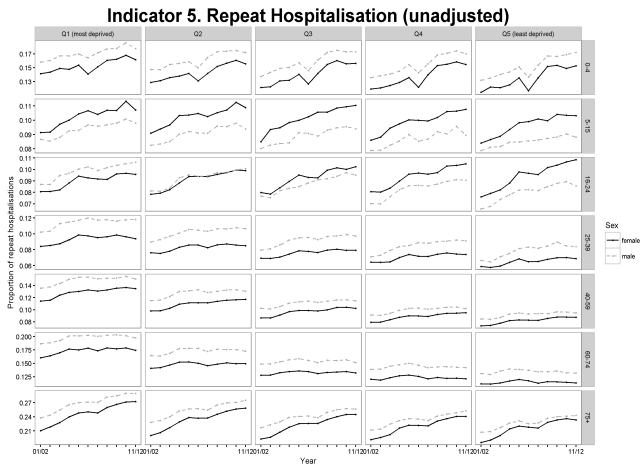
Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. **Repeat Hospitalisation**
6. Dying in Hospital
7. Amenable Mortality

## Equity caterpillar plot at CCG level



Indicator 5. Repeat Hospitalisation: proportion of inpatients with subsequent emergency readmission the same year adjusted for age and sex

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|---|---|---|---|
| 1 | North Norfolk | -0.01 | TRUE |
| 2 | South Reading | -0.00 | TRUE |
| 3 | Hambleton, Richmondshire and Whitby | 0.01 | TRUE |
| 4 | North East Essex | 0.02 | TRUE |
| 5 | South Kent Coast | 0.02 | TRUE |
| 6 | Corby | 0.03 | FALSE |
| 7 | Crawley | 0.03 | TRUE |
| 8 | North & West Reading | 0.03 | TRUE |
| 9 | South Lincolnshire | 0.03 | TRUE |
| 10 | South Norfolk | 0.03 | TRUE |

Table: Best performing CCGs in terms of SII: 2011

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
**5. Repeat Hospitalisation**
6. Dying in Hospital
7. Amenable Mortality

Bottom 10 CCGs (1 = worst on equity)

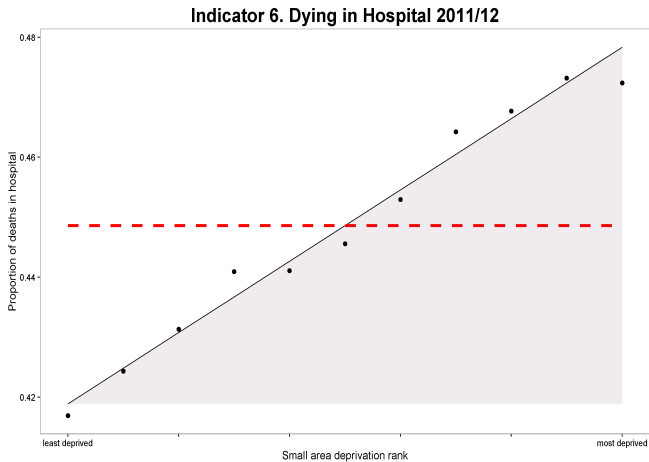| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | Blackpool | 0.14 | TRUE |
| 2 | Bradford City | 0.14 | FALSE |
| 3 | North Manchester | 0.14 | TRUE |
| 4 | Central London (Westminster) | 0.13 | TRUE |
| 5 | Sandwell and West Birmingham | 0.13 | TRUE |
| 6 | Waltham Forest | 0.13 | TRUE |
| 7 | Birmingham CrossCity | 0.11 | TRUE |
| 8 | Blackburn with Darwen | 0.11 | TRUE |
| 9 | Leeds South and East | 0.11 | TRUE |
| 10 | Oldham | 0.11 | TRUE |

Table: Worst performing CCGs in terms of SII: 2011

Indicator 6. Dying in Hospital
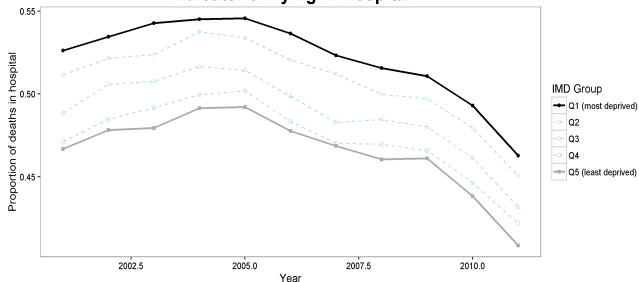
Dying in Hospital

- poportion of deaths in hospital

Background
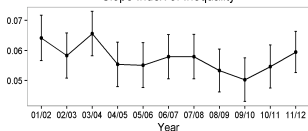Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity scatterplot



Indicator 6. Dying in Hospital: proportion of deaths in hospital

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity trend chart



Indicator 6. Dying in Hospital: proportion of deaths in hospital

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity matrix plot



Indicator 6. Dying in Hospital

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity matrix plot (free axis between age groups)



Indicator 6. Dying in Hospital

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Equity correlation plot at CCG level



Indicator 6. Dying in Hospital: proportion of deaths in hospital

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
**6. Dying in Hospital**
7. Amenable Mortality

## Equity caterpillar plot at CCG level



Indicator 6. Dying in Hospital: proportion of deaths in hospital

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|---:|---|---:|---|
| 1 | Bradford City | -0.34 | FALSE |
| 2 | Lambeth | -0.23 | FALSE |
| 3 | Lewisham | -0.18 | FALSE |
| 4 | Thurrock | -0.17 | TRUE |
| 5 | Rushcliffe | -0.16 | FALSE |
| 6 | East Surrey | -0.10 | FALSE |
| 7 | Isle of Wight | -0.10 | FALSE |
| 8 | Wolverhampton | -0.09 | TRUE |
| 9 | Greenwich | -0.08 | FALSE |
| 10 | Luton | -0.08 | FALSE |

Table: Best performing CCGs in terms of SII: 2011

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | Barking & Dagenham | 0.38 | FALSE |
| 2 | Islington | 0.31 | FALSE |
| 3 | Newham | 0.30 | FALSE |
| 4 | Harrogate and Rural District | 0.29 | TRUE |
| 5 | Kingston | 0.28 | FALSE |
| 6 | Newbury and District | 0.27 | FALSE |
| 7 | Tower Hamlets | 0.26 | FALSE |
| 8 | Guildford and Waverley | 0.24 | FALSE |
| 9 | Crawley | 0.23 | FALSE |
| 10 | Richmond | 0.23 | FALSE |

Table: Worst performing CCGs in terms of SII: 2011

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
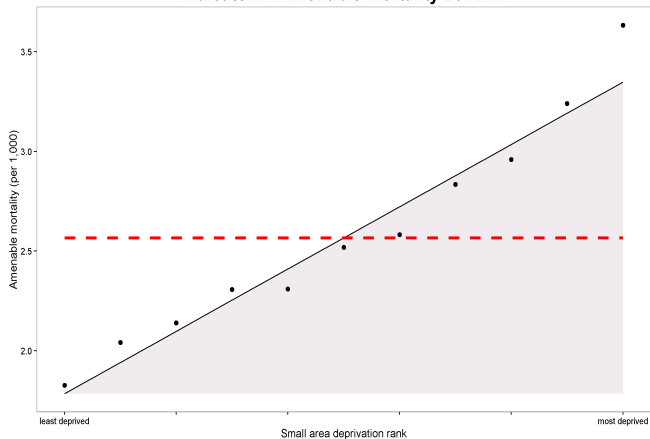**7. Amenable Mortality**

Indicator 7. Amenable Mortality

Amenable Mortality

- deaths per 1,000 population from causes considered amenable to health care
- adjusted for age and sex
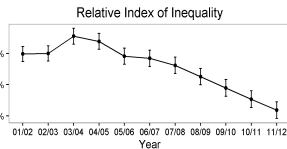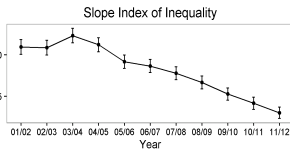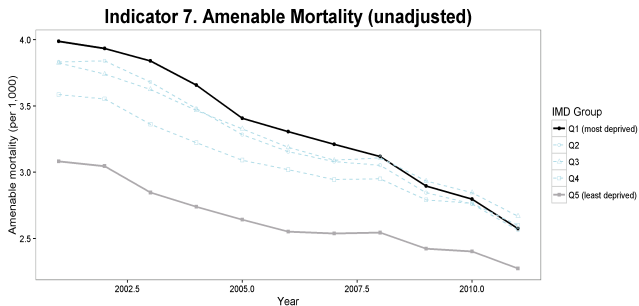- amenable defined according to the NHS outcomes framework definition for indicator: NHS OF 1.1

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

## Equity scatterplot



Indicator 7. Amenable Mortality: deaths per 1,000 population from causes amenable to health care adjusted for age and sex

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
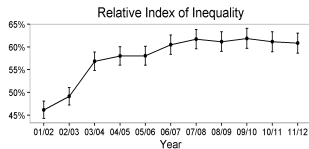5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**
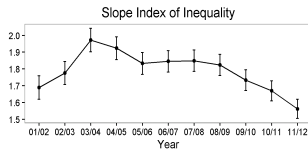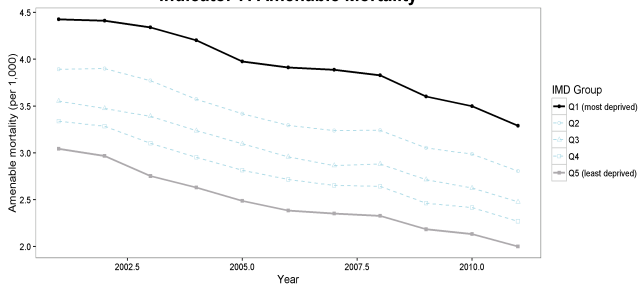
Equity trend chart unadjusted



Indicator 7. Amenable Mortality: deaths per 1,000 population from causes amenable to health care

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**

Equity trend chart
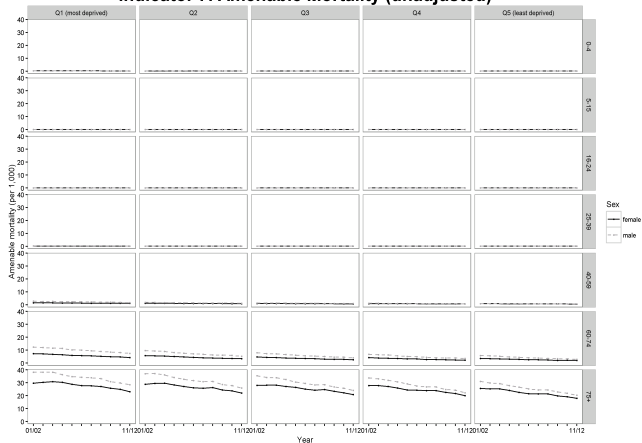


Indicator 7. Amenable Mortality: deaths per 1,000 population from causes amenable to health care adjusted for age and sex

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**

Equity matrix plot



Indicator 7. Amenable Mortality (unadjusted)

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**

# Equity matrix plot (free axis between age groups)



**Indicator 7. Amenable Mortality (unadjusted)**

Breakdown by age, sex, deprivation and year

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**

Equity correlation plot at CCG level



**Indicator 7. Amenable Mortality 2011/12**

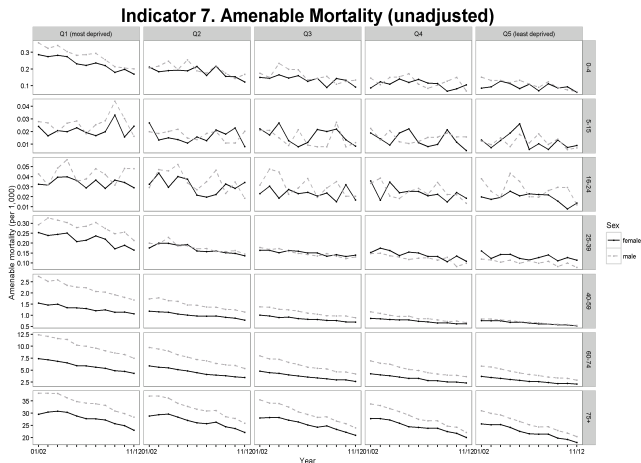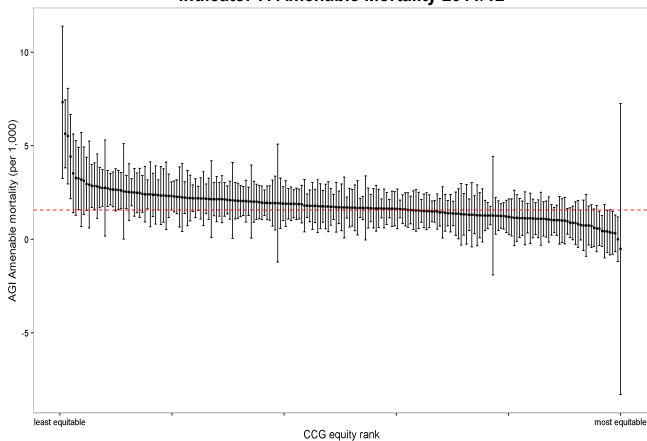*Indicator 7. Amenable Mortality: deaths per 1,000 population from causes amenable to health care adjusted for age and sex*

Background
Healthcare Access
**Healthcare Outcomes**
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
**7. Amenable Mortality**

## Equity caterpillar plot at CCG level



Indicator 7. Amenable Mortality: deaths per 1,000 population from causes amenable to health care adjusted for age and sex

## Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | Bradford City | -0.52 | FALSE |
| 2 | North Norfolk | -0.00 | TRUE |
| 3 | South Norfolk | 0.31 | TRUE |
| 4 | Surrey Downs | 0.34 | TRUE |
| 5 | North & West Reading | 0.36 | FALSE |
| 6 | Merton | 0.41 | TRUE |
| 7 | Erewash | 0.43 | FALSE |
| 8 | Wiltshire | 0.44 | TRUE |
| 9 | Guildford and Waverley | 0.57 | FALSE |
| 10 | High Weald Lewes Havens | 0.57 | TRUE |

Table: Best performing CCGs in terms of SII: 2011

Background
Healthcare Access
Healthcare Outcomes
Health

4. Preventable Hospitalisation
5. Repeat Hospitalisation
6. Dying in Hospital
7. Amenable Mortality

Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | Newham | 7.33 | TRUE |
| 2 | North Manchester | 5.64 | TRUE |
| 3 | Slough | 5.51 | TRUE |
| 4 | Lewisham | 4.42 | TRUE |
| 5 | Scarborough and Ryedale | 3.52 | FALSE |
| 6 | Tower Hamlets | 3.27 | FALSE |
| 7 | Rushcliffe | 3.25 | TRUE |
| 8 | Waltham Forest | 3.19 | FALSE |
| 9 | Blackpool | 3.13 | FALSE |
| 10 | Blackburn with Darwen | 2.96 | FALSE |

Table: Worst performing CCGs in terms of SII: 2011

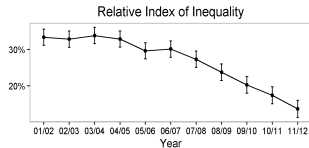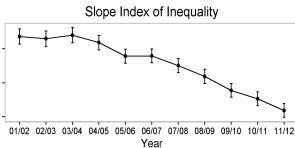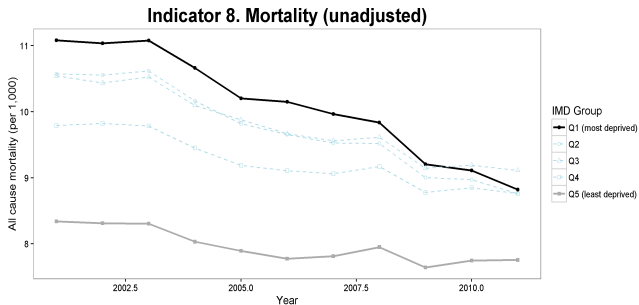Contents

Indicator 8. Mortality

Mortality

- deaths per 1,000 population from all causes at all ages
- adjusted for age and sex

Equity scatterplot

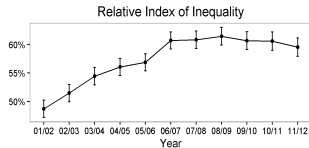

Indicator 8. Mortality 2011/12
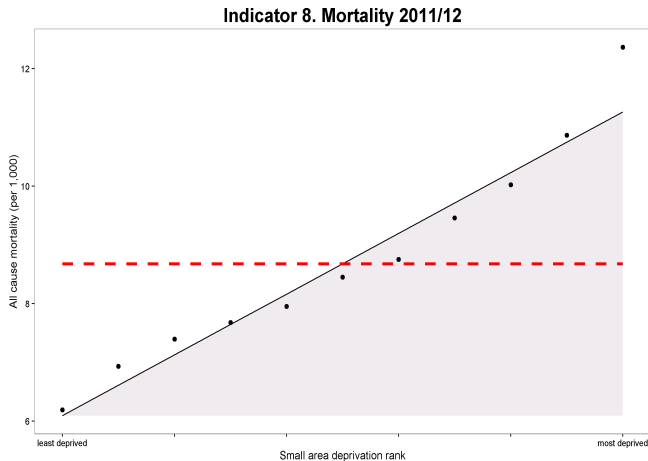
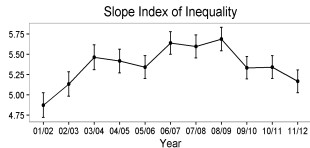Indicator 8. Mortality: death rate per 1,000 population adjusted for age and sex

# Equity trend chart unadjusted



Indicator 8. Mortality: deaths per 1,000 population from all causes at all ages

## Equity trend chart
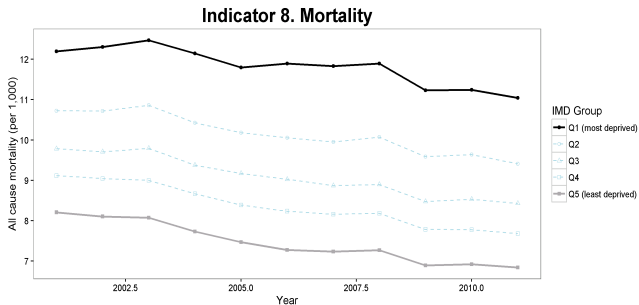


Indicator 8. Mortality: death rate per 1,000 population adjusted for age and sex

# Equity matrix plot



Indicator 8. Mortality (unadjusted)
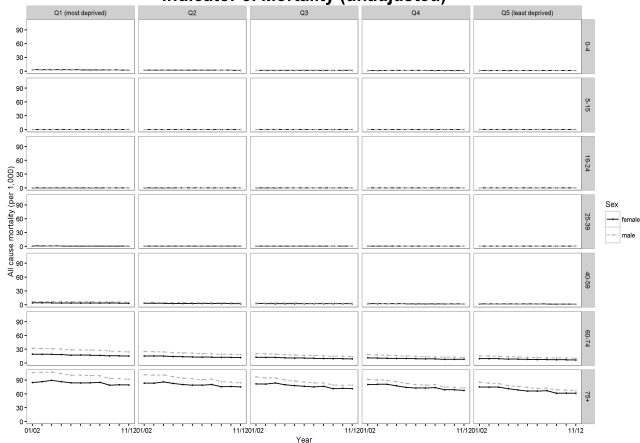
Breakdown by age, sex, deprivation and year

# Equity matrix plot (free axis between age groups)



**Indicator 8. Mortality (unadjusted)**

Breakdown by age, sex, deprivation and year

## Equity correlation plot at CCG level
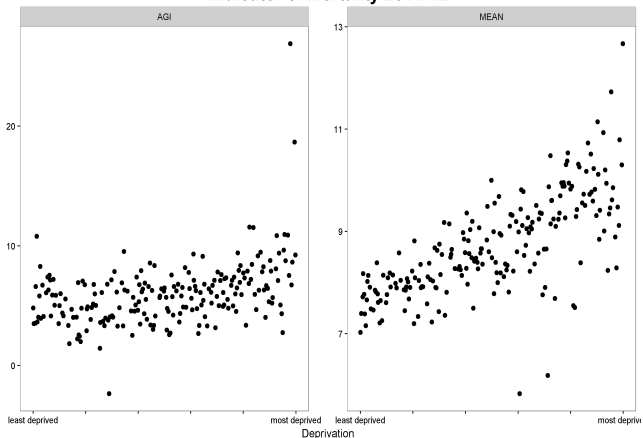


Indicator 8. Mortality 2011/12

Indicator 8. Mortality: death rate per 1,000 population adjusted for age and sex

## Equity caterpillar plot at CCG level



**Indicator 8. Mortality 2011/12**
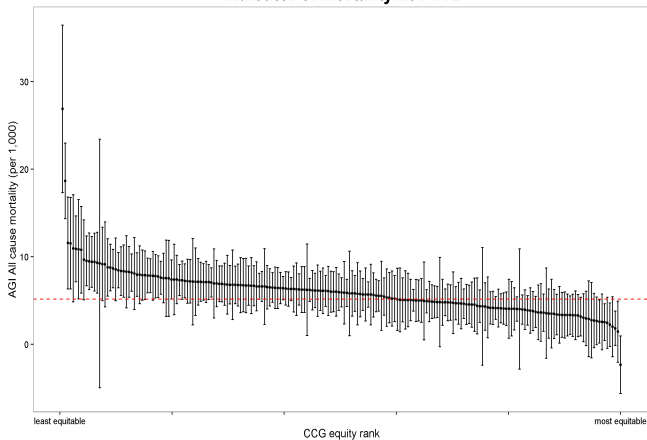
*Indicator 8. Mortality: death rate per 1,000 population adjusted for age and sex*

Top 10 CCGs (1 = best on equity)

| Rank | CCG | SII | Significant |
|------|-----|-----|-------------|
| 1 | North Norfolk | -2.34 | TRUE |
| 2 | Ashford | 1.45 | TRUE |
| 3 | Wiltshire | 1.82 | TRUE |
| 4 | Hambleton, Richmondshire and Whitby | 2.00 | FALSE |
| 5 | High Weald Lewes Havens | 2.23 | TRUE |
| 6 | South Norfolk | 2.44 | FALSE |
| 7 | South Eastern Hampshire | 2.52 | TRUE |
| 8 | South Lincolnshire | 2.57 | FALSE |
| 9 | Norwich | 2.59 | TRUE |
| 10 | Telford & Wrekin | 2.67 | FALSE |

Table: Best performing CCGs in terms of SII: 2011

Bottom 10 CCGs (1 = worst on equity)

| Rank | CCG | SII | Significant |
|---|---|---|---|
| 1 | Newham | 26.90 | TRUE |
| 2 | North Manchester | 18.67 | TRUE |
| 3 | Lewisham | 11.58 | TRUE |
| 4 | Lambeth | 11.54 | TRUE |
| 5 | Central Manchester | 10.96 | FALSE |
| 6 | Tower Hamlets | 10.90 | TRUE |
| 7 | Waltham Forest | 10.86 | TRUE |
| 8 | Rushcliffe | 10.80 | TRUE |
| 9 | Blackpool | 9.65 | FALSE |
| 10 | Southport and Formby | 9.53 | TRUE |

Table: Worst performing CCGs in terms of SII: 2011

Appendix

Details of indicator definitions

# NHS OF definition of ambulatory care sensitive conditions

NHS Outcomes Framework 2014/15: Domain 2 Appendices

### Appendix 2 - Primary diagnoses for chronic ambulatory care sensitive conditions for indicator 2.3.i

| ICD–10 codes | Condition group and cause |
|---|---|
| **Infections** | |
| B18.0, B18.1 | Chronic viral hepatitis B without delta-agent (B18.0) and with delta-agent (B18.1) (excluding people with a secondary diagnosis of D57 (sickle-cell disorders) |
| **Nutritional, endocrine and metabolic** | |
| E10, E11, E12, E13, E14 | Diabetes |
| **Diseases of the blood** | |
| D50.1, D50.8, D50.9, D51, D52 | Iron deficiency anaemia: D50.1 Sideropenic dysphagia, D50.8 Other iron deficiency anaemias, D50.9 Iron deficiency anaemia, unspecified, D51 Vitamin B12 deficiency anaemia, D52 Folate deficiency anaemia |
| **Mental and behavioural disorders** | |
| F00, F01, F02, F03 | Dementia |
| **Neurological disorders** | |
| G40, G41 | Convulsions and Epilepsy |
| **Cardiovascular diseases** | |
| I11.0, I50, J81X, I13.0. (excluding OPCS4 codes: K0, K1, K2, K3, K4, K50, K52, K55, K56, K57, K60, K61, K66, K67, K68, K69, K71). | Congestive heart failure: I11.0 Hypertensive heart disease with (congestive) heart failure, I50 Heart failure, J81X Pulmonary oedema, I13.0 Hypertensive heart and renal disease with (congestive) heart failure. |
| I20, I25. OPCS4 codes excluded: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, V, W, X0, X1, X2, X4, X5 | Angina |
| I10X, I11.9. OPCS4 codes excluded: K0, K1, K2, K3, K4, K50, K52, K55, K56, K57, K60, K61, K66, K67, K68, K69, K71 | Hypertension |
| I48 | Atrial fibrillation and flutter |

NHS Outcomes Framework 2014/15: Domain 2 Appendices

| ICD–10 codes | Condition group and cause |
|---|---|
| **Respiratory diseases** | |
| J20, J41, J42X, J43, J44, J47X. J20 only with second diagnosis of J41, J42, J43, J44, J47 | Chronic obstructive pulmonary disease |
| J45, J46X | Asthma (J45) and Status asthmaticus (J46) |

# NHS OF definition of conditions amenable to healthcare (1/2)

NHS Outcomes Framework 2014/15: Domain 1 Appendices

## Domain 1 Appendices

**Appendix 1 – Causes considered amenable to healthcare used in the calculation of NHS Outcomes Framework indicators 1a, 1a.i and 1a.ii**

| ICD–10 codes | Condition group and cause | Ages included | Used in indicator |
|---|---|---|---|
| **Infections** | | | |
| A00 – A09 | Intestinal infectious disease | 0-14 | Children's indicator (1a.ii) only |
| A15–A19, B90 | Tuberculosis | 0-74 | All |
| A35 – A36, A80 | Other infections (diphtheria, other tetanus, acute poliomyelitis) | 0-19 | Children's indicator (1a.ii) only |
| A37 | Whooping cough | 0-14 | Children's indicator (1a.ii) only |
| A38–A41, A46, A48.1, B50–B54, G00, G03, J02, L03 | Selected invasive bacterial and protozoal infections | 0-74 | All |
| B05 | Measles | 1-14 | Children's indicator (1a.ii) only |
| B17.1, B18.2 | Hepatitis C | 0-74 | All |
| B20-B24 | HIV/AIDS | All ages | All |
| **Neoplasms** | | | |
| C18–C21 | Malignant neoplasm of colon and rectum | 0-74 | All |
| C43 | Malignant melanoma of skin | 0-74 | All |
| C44 | Other malignant neoplasms of skin | 0-19 | Children's indicator (1a.ii) only |
| C50 | Malignant neoplasm of breast | 0-74 | All |

NHS Outcomes Framework 2014/15: Domain 1 Appendices

| ICD–10 codes | Condition group and cause | Ages included | Used in indicator |
|---|---|---|---|
| C53 | Malignant neoplasm of cervix uteri | 0-74 | All |
| C54 – C55 | Malignant neoplasms of corpus uteri and uterus unspecified | 0-19 | Children's indicator (1a.ii) only |
| C62 | Malignant neoplasm of testis | 0-19 | Children's indicator (1a.ii) only |
| C67 | Malignant neoplasm of bladder | 0-74 | All |
| C73 | Malignant neoplasm of thyroid gland | 0-74 | All |
| C81 | Hodgkin's disease | 0-74 | All |
| C91, C92.0 | Leukaemia | 0-44 | All |
| D10–D36 | Benign neoplasms | 0-74 | All |
| **Nutritional, endocrine and metabolic** | | | |
| E00 – E07 | Disorders of thyroid gland | 0-19 | Children's indicator (1a.ii) only |
| E10–E14 | Diabetes mellitus | 0-49 | All |
| **Neurological disorders** | | | |
| G40–G41 | Epilepsy and status epilepticus | 0-74 | All |
| **Cardiovascular diseases (CVD)** | | | |
| I01–I09 | Rheumatic and other valvular heart disease | 0-74 | All |
| I10–I15 | Hypertensive diseases | 0-74 | All |
| I20–I25 | Ischaemic heart disease | 0-74 | All |
| I60–I69 | Cerebrovascular diseases | 0-74 | All |
| **Respiratory diseases** | | | |
| J09–J11 | Influenza (including swine flu) | 0-74 | All |
| J12–J18 | Pneumonia | 0-74 | All |
| J45–J46 | Asthma | 0-74 | All |

# NHS OF definition of conditions amenable to healthcare (2/2)

NHS Outcomes Framework 2014/15: Domain 1 Appendices

| ICD–10 codes | Condition group and cause | Ages included | Used in indicator |
|---|---|---|---|
| J00-J08, J20-J39, J47-J99 | Other respiratory | 1-14 | Children's Indicator (1a.ii) only |
| **Digestive disorders** | | | |
| K25–K28 | Gastric and duodenal ulcer | 0-74 | All |
| K35–K38, K40–K46, K80–K83, K85,K86.1-K86.9, K91.5 | Acute abdomen, appendicitis, intestinal obstruction, cholecystitis / lithiasis, pancreatitis, hernia | 0-74 | All |
| **Genitourinary disorders** | | | |
| N00–N07, N17–N19, N25-N27 | Nephritis and nephrosis | 0-74 | All |
| N13, N20–N21, N35, N40, N99.1 | Obstructive uropathy & prostatic hyperplasia | 0-74 | All |
| **Maternal & infant** | | | |
| P00–P96, A33 | Complications of perinatal period | All ages | All |
| Q00–Q99 | Congenital malformations, deformations and chromosomal anomalies | 0-74 | All |
| O00 – O99 | Pregnancy, childbirth and the puerperium | 0-19 | Children's Indicator (1a.ii) only |
| **Injuries** | | | |
| Y60–Y69, Y83–Y84 | Misadventures to patients during surgical and medical care | All ages | All |