

# NHS Atlases of Variation - The Power of Variation

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# Inconvenient truths

- “The Atlas exposes some inconvenient truths about the extent of variation in care for some common conditions”
  - Professor Sir Bruce Keogh

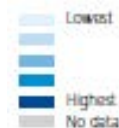
# Inconvenient truths – Diabetes and The Atlas of Variation

- 5 diabetes maps in Atlas 2015 have confidence intervals
- Of the 211 local health economies in England (at time of data capture):
  - 13 were not significant outliers on any of the diabetes maps
- Or rather:
  - 198 and their local providers had at least one significant improvement opportunity in diabetes

**Map 30:** Percentage of people in the National Diabetes Audit (NDA) with Type 1 and Type 2 diabetes who received NICE-recommended care processes (excluding eye screening) by CCG

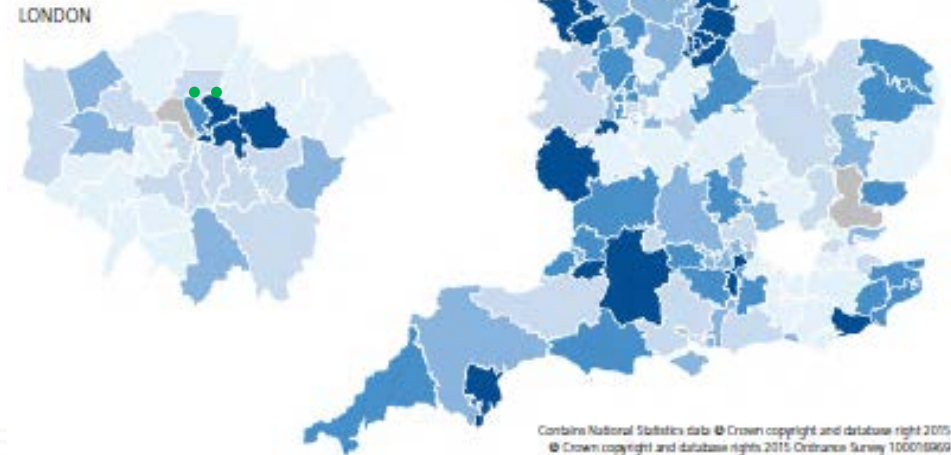
2012/13

Domain 1: Preventing premature mortality

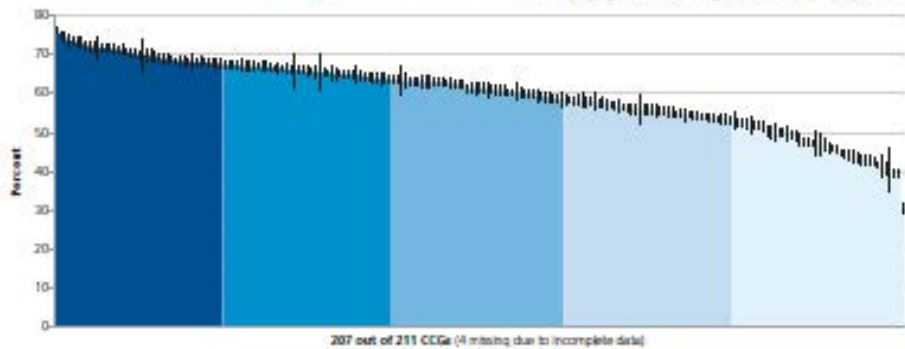


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**Map 35:** Relative risk of major lower limb amputation among people in the National Diabetes Audit (NDA) with Type 1 and Type 2 diabetes compared with people without diabetes by CCG

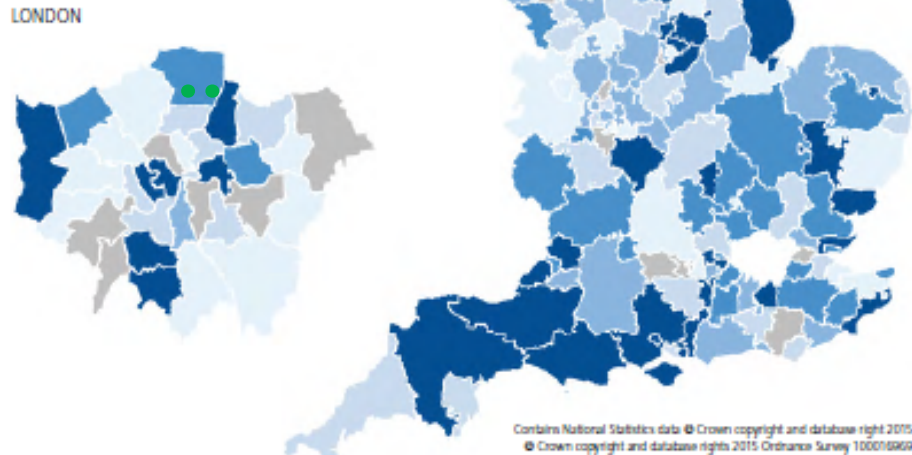
Indirectly standardised rate, adjusted for age and sex, 2010/11–2012/2013

Domain 1: Preventing premature mortality

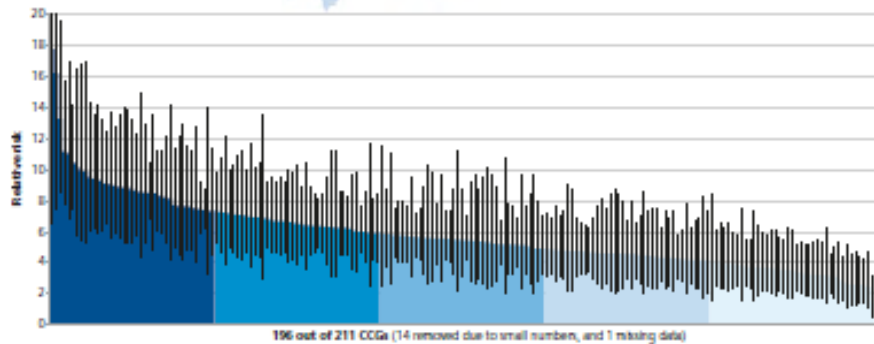


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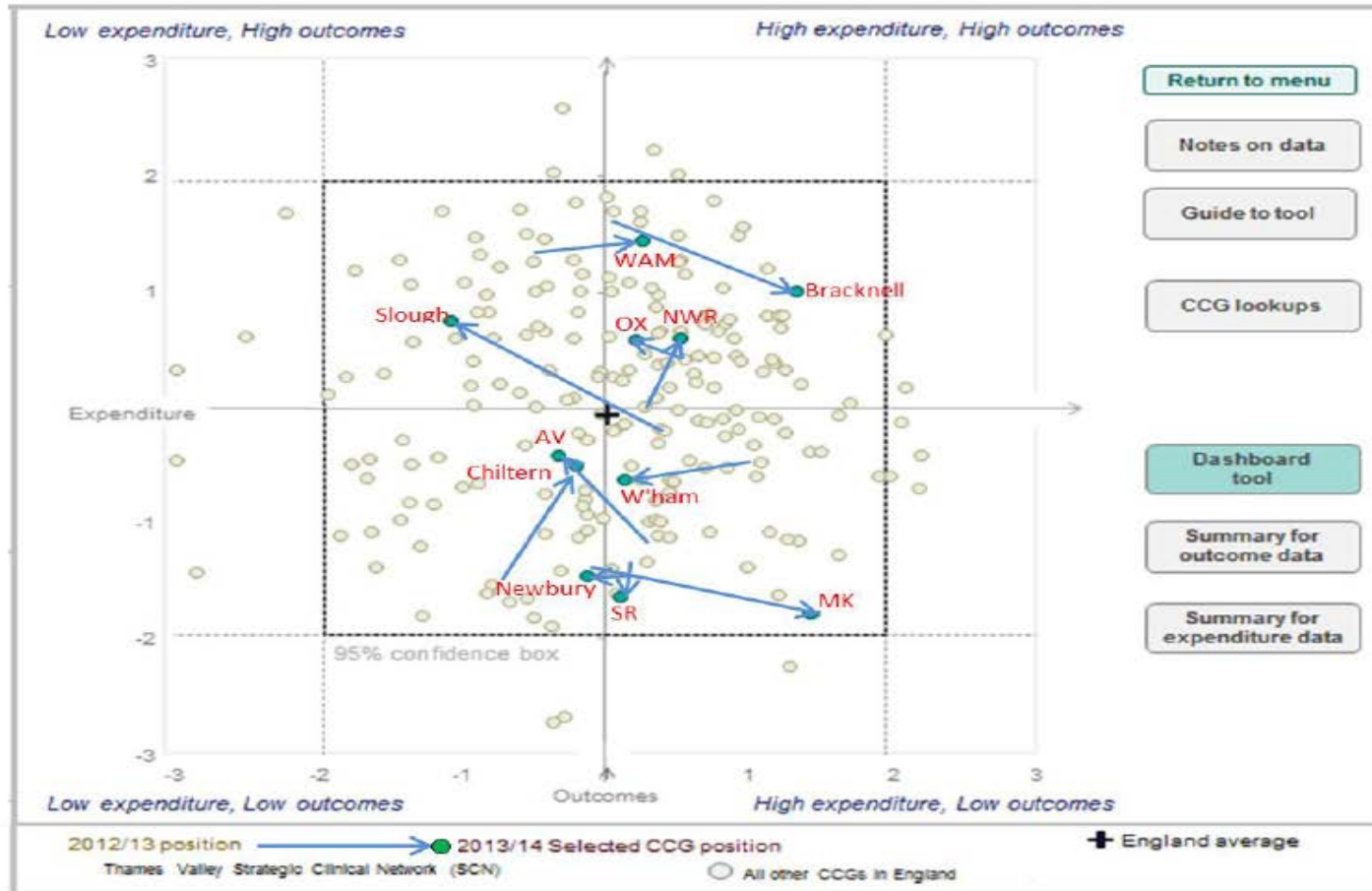
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# Outcomes Versus Expenditure (DOVE) Tool - Diabetes quadrant chart 2013/14



Data:

Total spend on diabetes prescribing compared to people with diabetes with a HbA1c of 59mmol/mol or less in the TVSCN area



# First Do No Harm

The first Atlas of Variation (2009) – destabilised complacency by highlighting huge and unwarranted variation in:

- Access
- Quality
- Outcome
- Value

Also revealed two other problems:

Overuse – leading to

- Waste
- Patient harm (even when the quality of care is high)

Underuse – leading to

- Failure to prevent disease
- Inequity

# The invisibility of improvement opportunity

- Diagnostic Atlas

- %age stroke patients undergoing brain imaging within 1 hour of arrival at hospital, by hospital

• 80 <sup>th</sup> %ile -	55%
• Fairfield -	43%
• NMGH -	32%
• MRI -	7%
• Royal Oldham -	4%

# The invisibility of improvement opportunity

- Diagnostic Atlas

- %age stroke patients undergoing brain imaging within 24 hours of arrival at hospital, by hospital

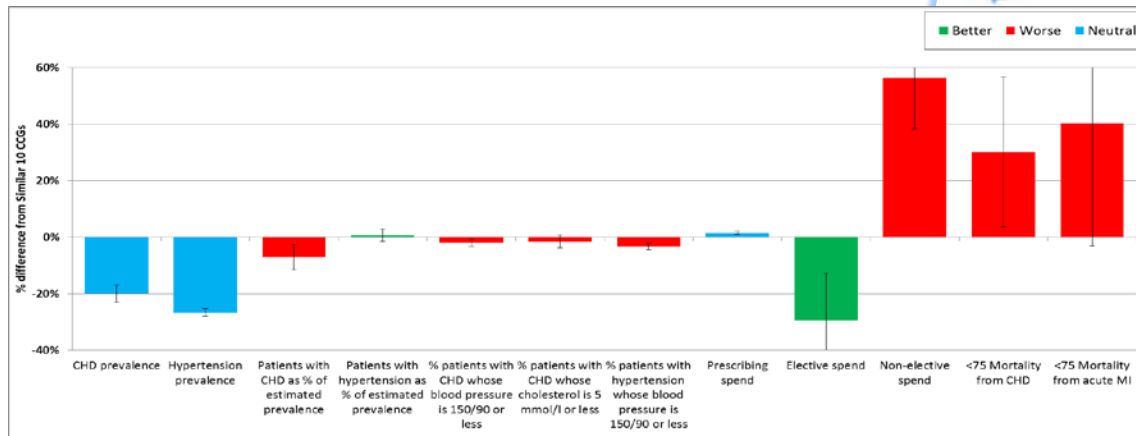
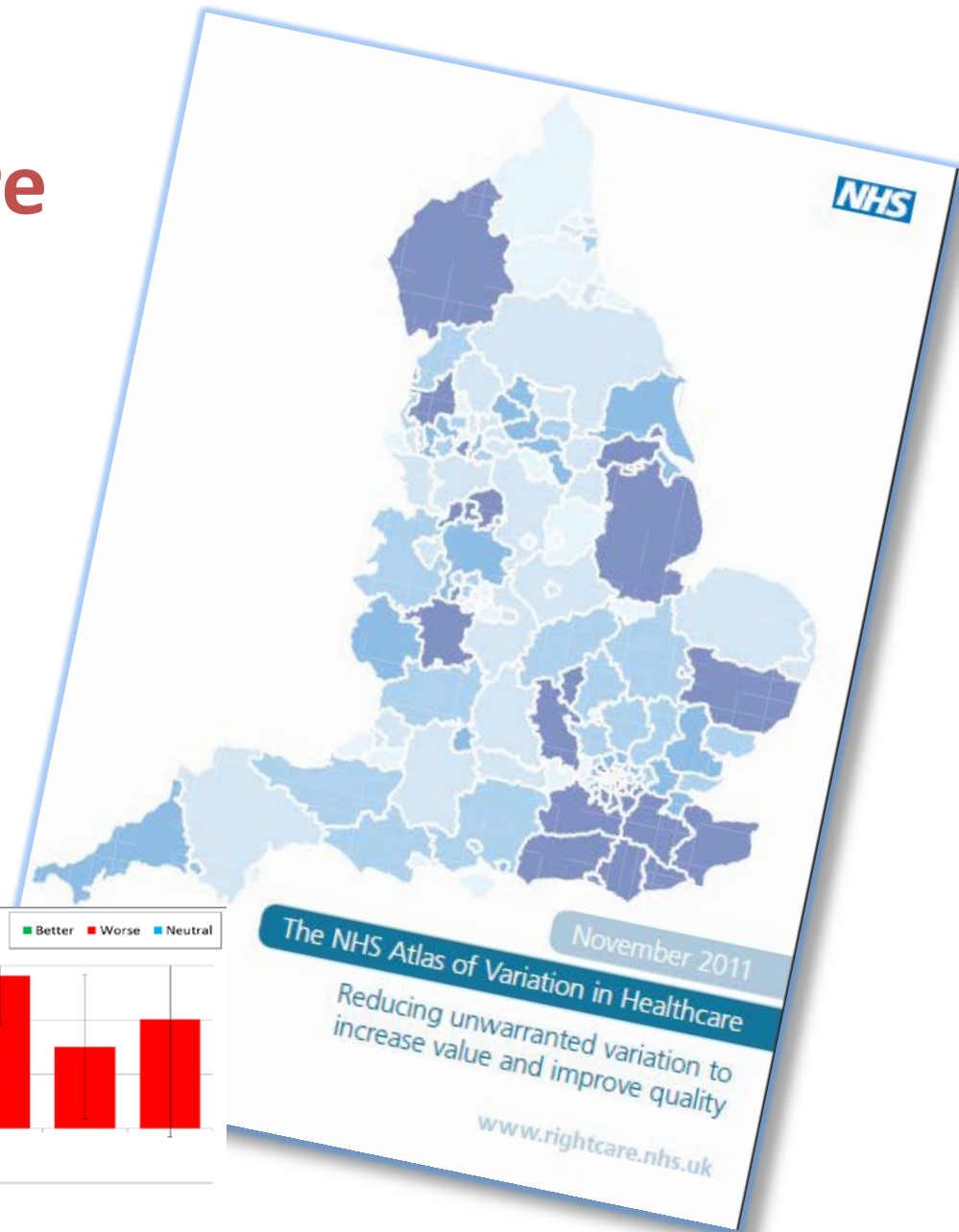
- 80<sup>th</sup> %ile - 98%
- Fairfield - 96%
- NMGH - 91%
- MRI - 81%
- Royal Oldham - 94%



# 1st fundamental of population healthcare improvement

Awareness is the first step towards improvement –

If the existence of clinical and financial variation is unknown, the debate about whether it is unwarranted cannot take place

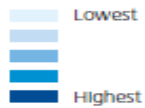


The NHS Atlas of Variation in Healthcare  
November 2011  
Reducing unwarranted variation to increase value and improve quality  
[www.rightcare.nhs.uk](http://www.rightcare.nhs.uk)

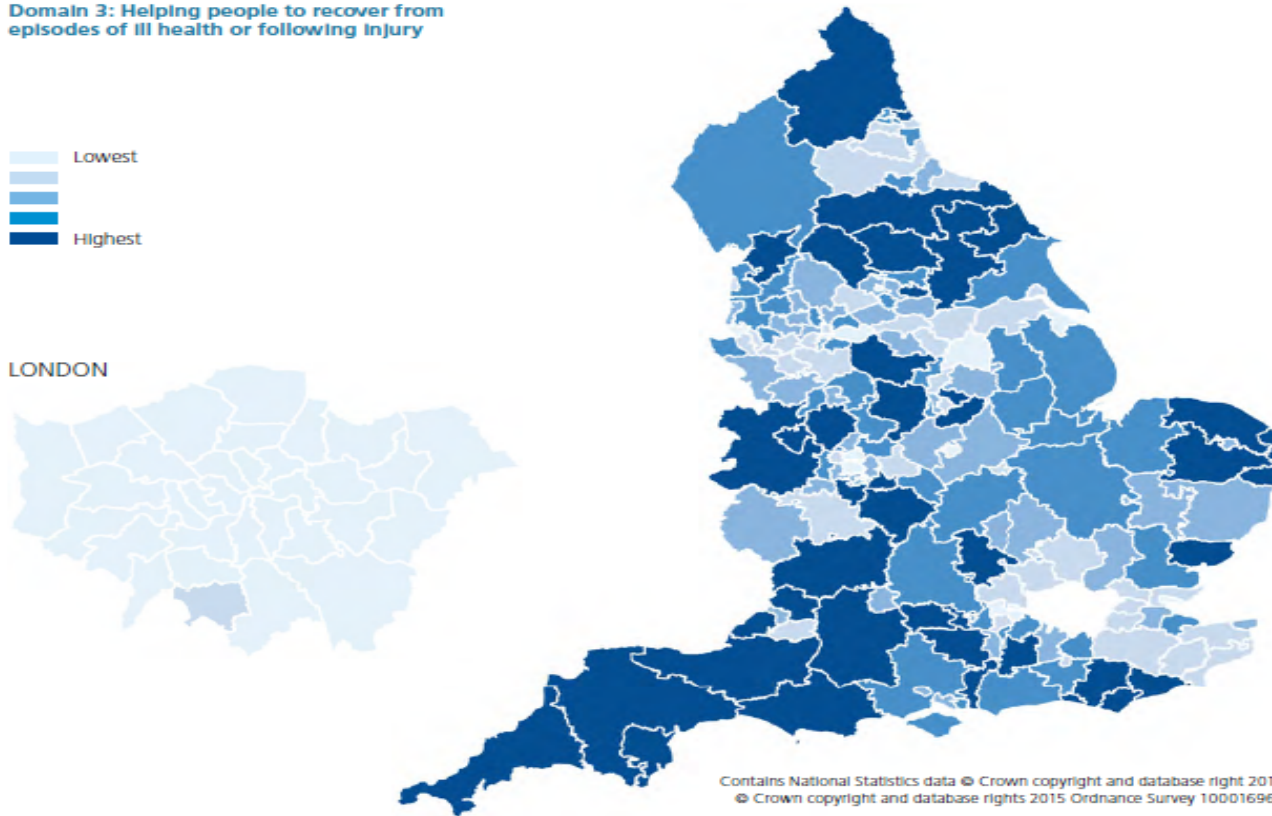
# Map 59: Rate of primary hip replacement procedures per population by CCG

Directly standardised rate, adjusted for age and sex, 2012/13

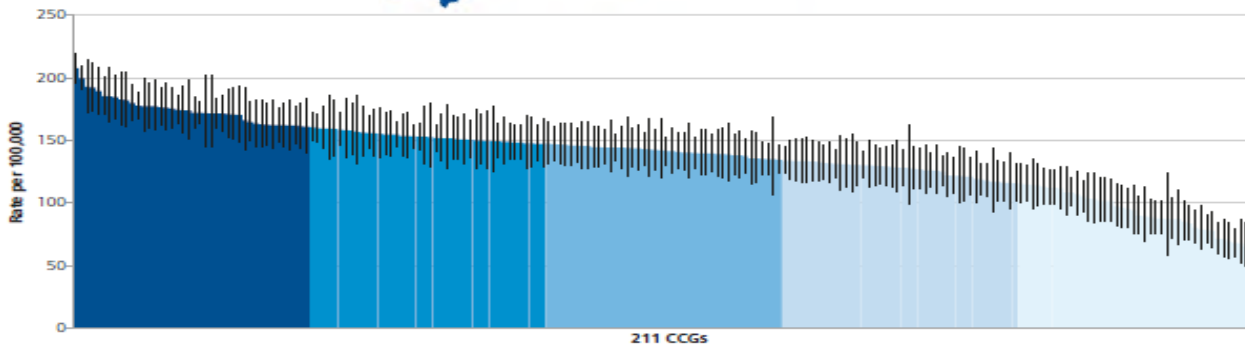
Domain 3: Helping people to recover from episodes of ill health or following injury



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- NEW Devon – 200 per 100k
- Cluster 75<sup>th</sup> %ile – 176 (England norm is 137)
- 73% of CCGs do not follow best practice (RCSEng)
- Options for Action –
  - Follow NICE and other clinical guidance
  - Use Patient Decision Aids (RCS and Cochrane advocated)

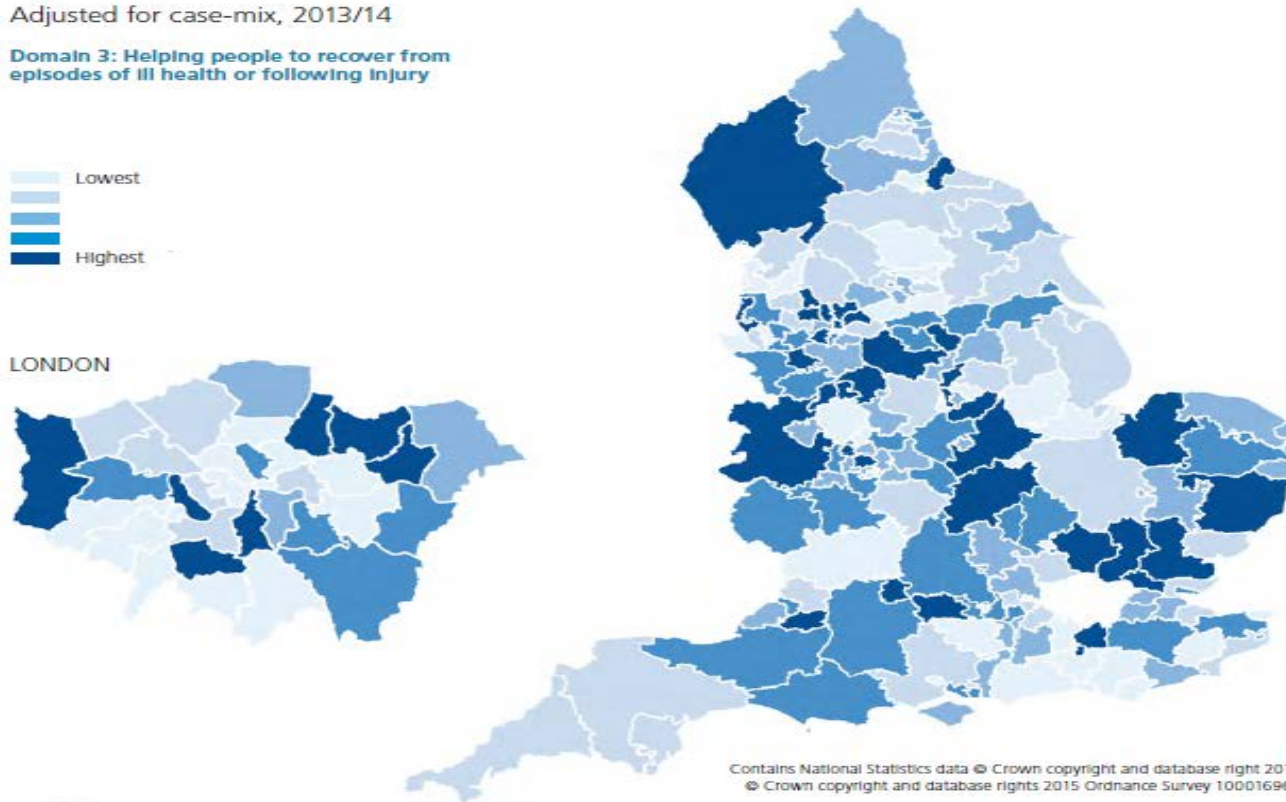
# Map 60: Mean patient-reported health gain (EQ-5D Index score) for primary hip replacement procedures by CCG

Adjusted for case-mix, 2013/14

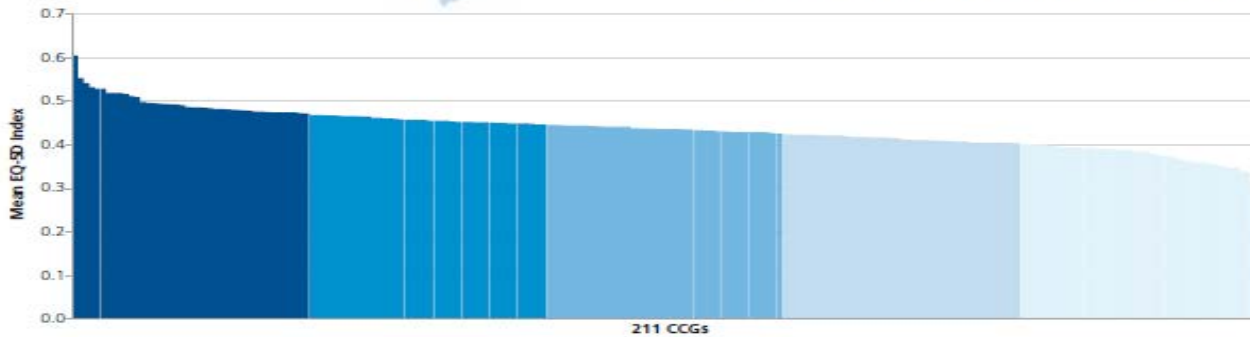
Domain 3: Helping people to recover from episodes of ill health or following injury



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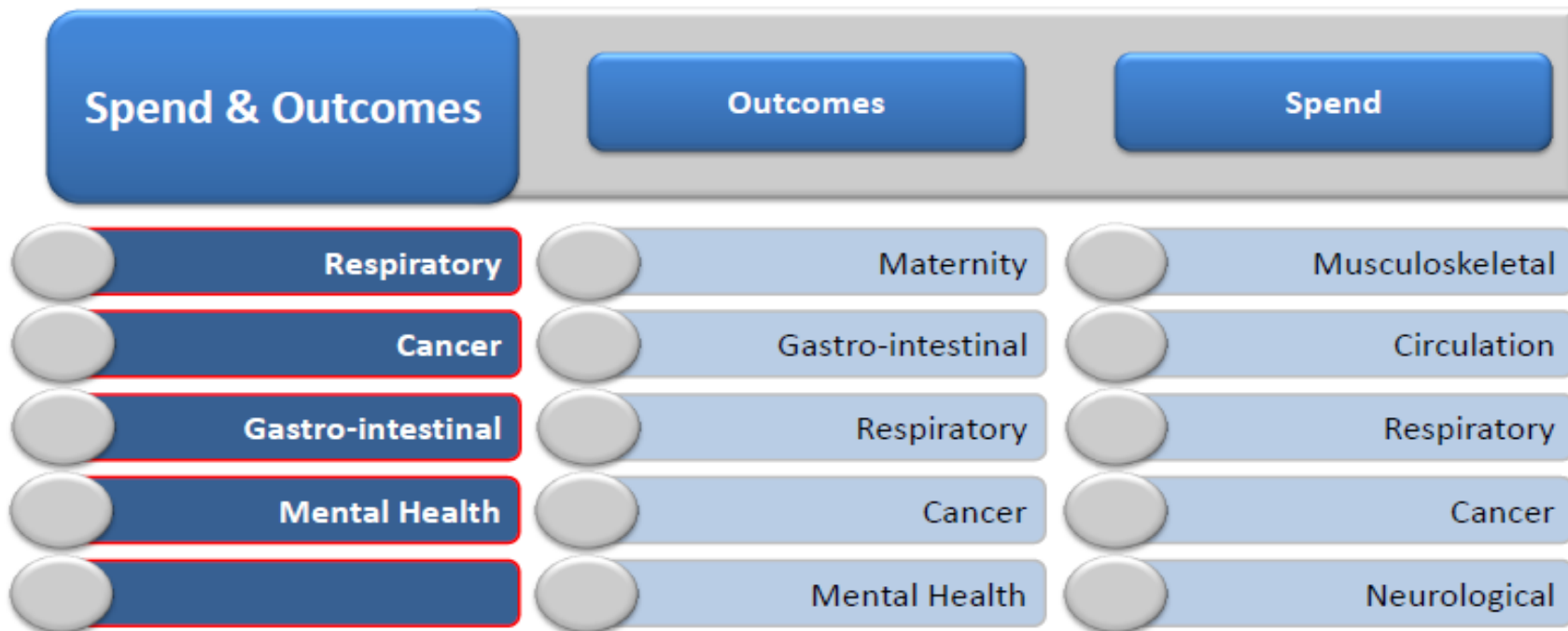
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- NEW Devon – 0.42
- Cluster 75<sup>th</sup> %ile – 0.46
- Best in cluster – Cumbria CCG
- Options for Action – Use Shared Decision Making

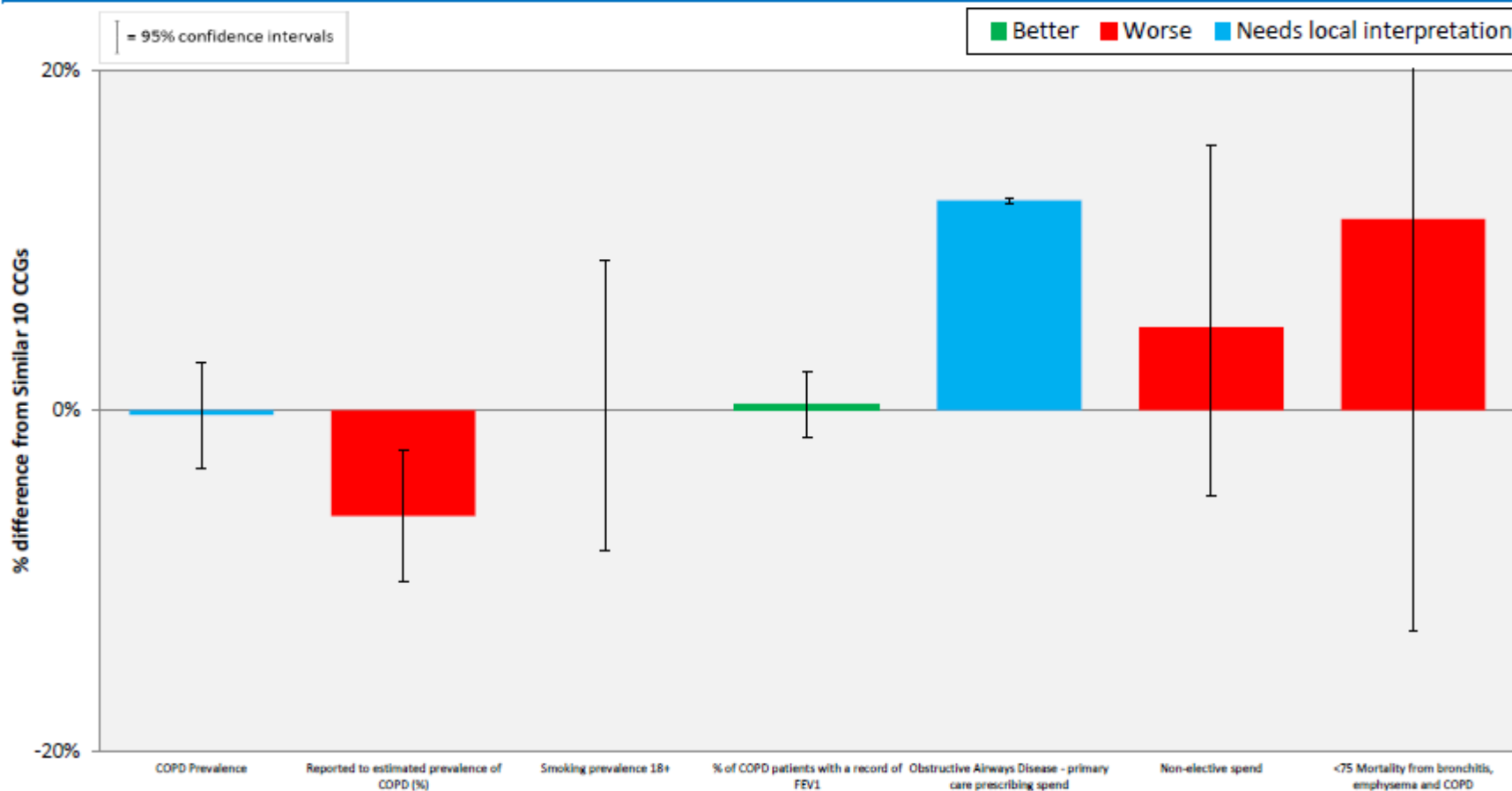
# Phase 1: Where to Look - Commissioning for Value

## Headline opportunity areas for your health economy



A note on the methodology used to calculate your headline opportunities is available on our website:

<https://www.england.nhs.uk/comm-for-value/>



**NICE Guidance:**

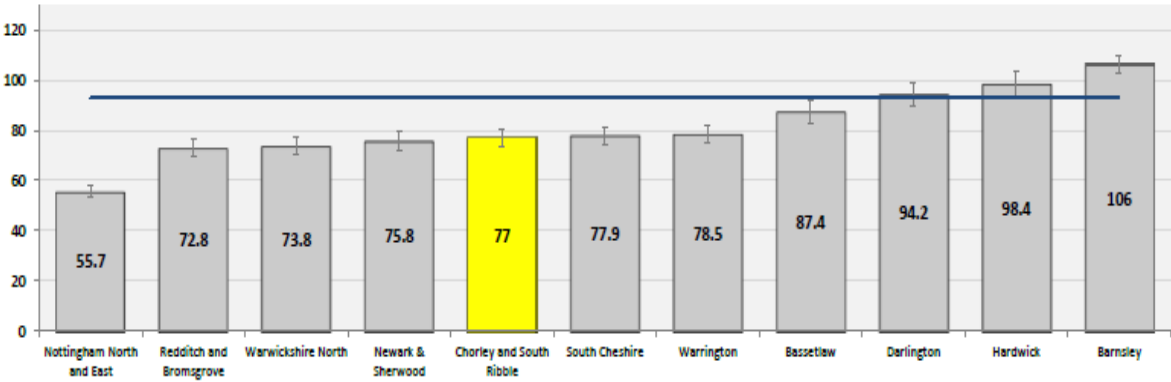
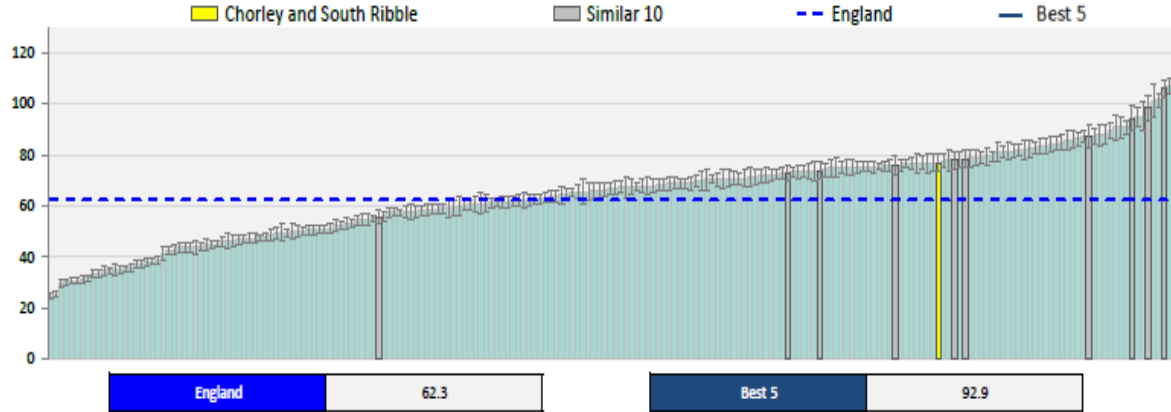
<http://pathways.nice.org.uk/pathways/chronic-obstructive-pulmonary-disease>

NHS RightCare CFV Respiratory focus pack

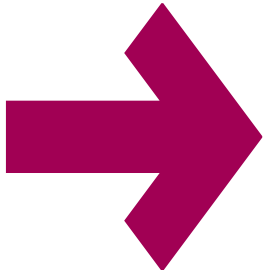
NHS Chorley and South Ribble CCG

# This LHE could do better at case finding – 838 more COPD patients could be added to GP registers and managed in primary and community care to help prevent unnecessary admissions and save money.

Reported to estimated prevalence of COPD (%) 838 Pats. 50



Definition: Chronic Obstructive Pulmonary Disease (COPD) (%) Reported to estimated prevalence: Disease Register and Population  
 SOURCE: Quality and Outcomes Framework (QoF), The Health and Social Care Information Centre, IMAHE (Interactive Health Atlas for Lung conditions in England), Public Health England  
 Year: 2014/15 (2011)

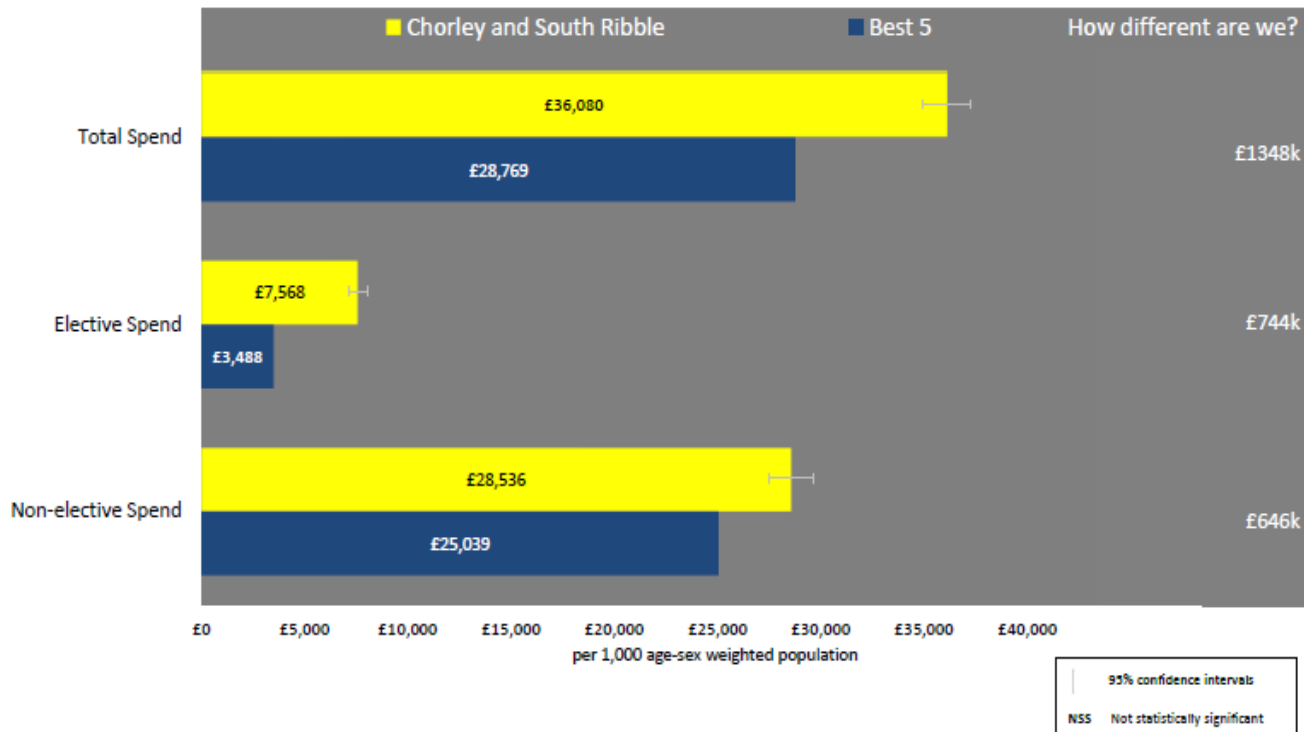




# Chorley and South Ribble CCG spend over £1.3 million more on Respiratory admissions than the best five similar CCGs.

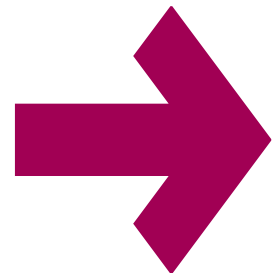
## Respiratory - Spend

13



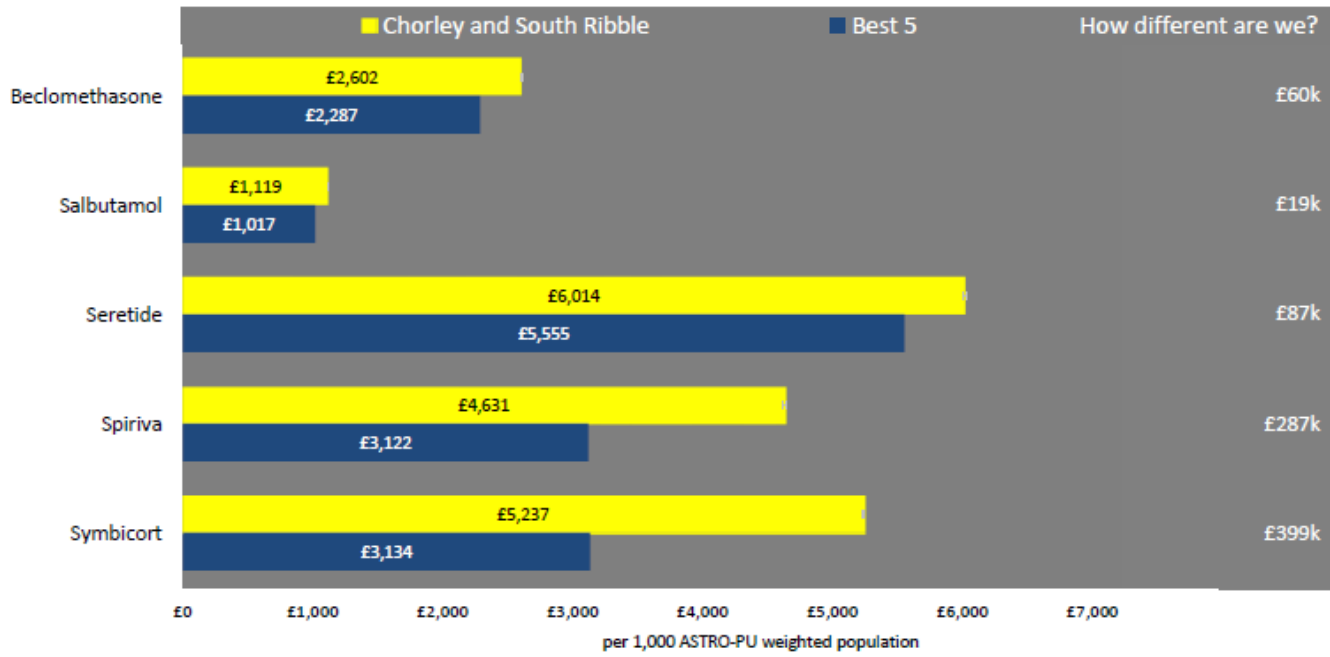
NHS RightCare CFV Respiratory focus pack

NHS Chorley and South Ribble CCG



Spend on one drug (Symbicort) prescribed in primary care is £400k higher than the lowest five similar CCGs.

Respiratory - Primary Care Prescribing Spend continued 33



NHS RightCare CFV Respiratory focus pack

NHS Chorley and South Ribble CCG

# Complex Patients - Co-morbidities

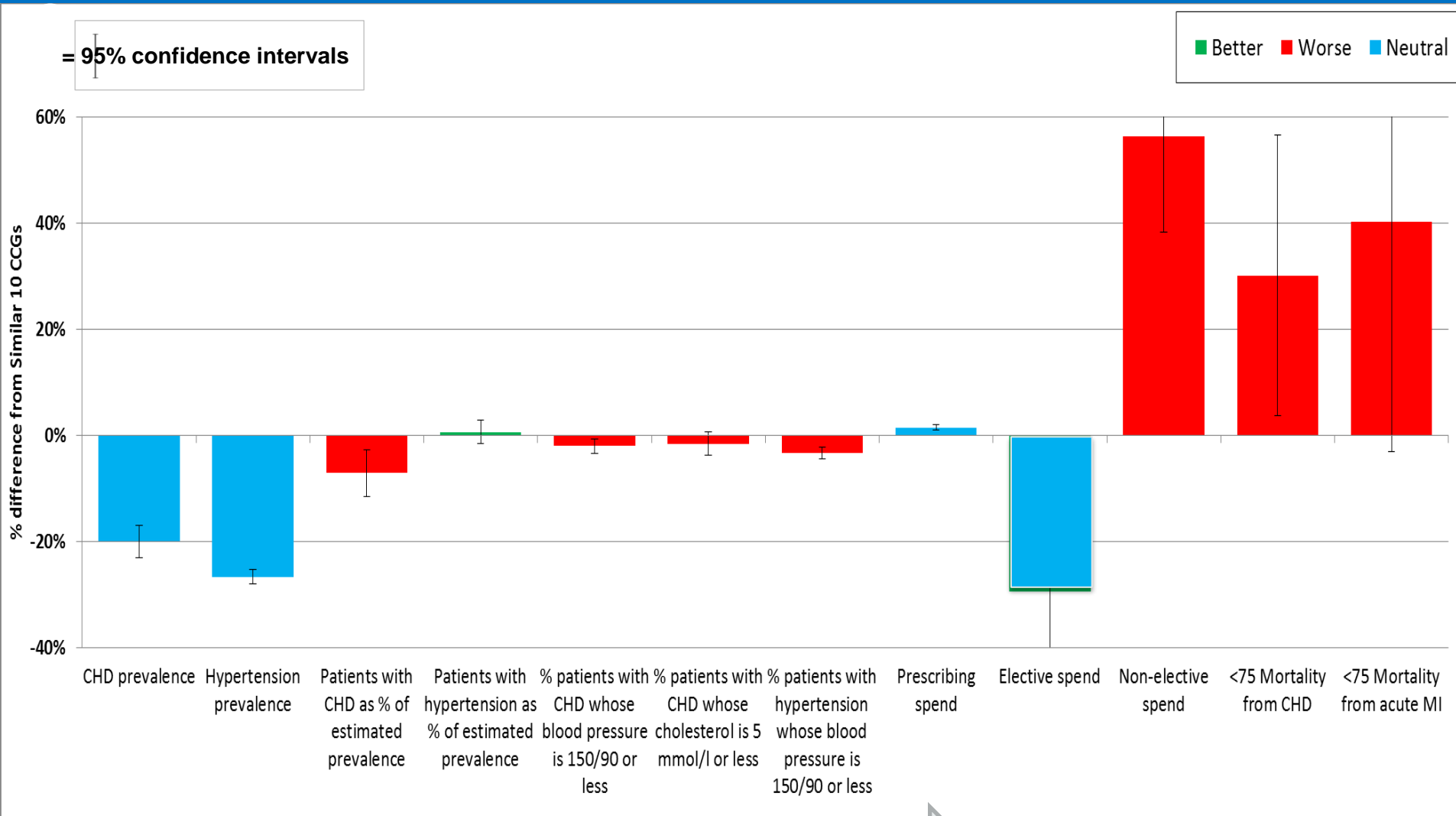
NHS Chorley and South Ribble CCG

Of the 185 patients admitted for Gastro intestinal, 53 patients were admitted for a Genito Urinary condition and 49 patients were admitted for a Respiratory condition.

\*For more details on how to interpret the following table, please refer to the last slide of this pack "Complex Patients - How to interpret co-morbidities table"

Main conditions	Co-morbidity 1	Co-morbidity 2	Co-morbidity 3	Co-morbidity 4	Co-morbidity 5
<b>Gastro intestinal</b>	Genito Urinary	Respiratory	Neurological	Cancer	Circulation
185 patients	53	49	52	45	43
<b>Circulation</b>	Respiratory	Neurological	Gastro intestinal	Genito Urinary	Cancer
186 patients	46	45	43	33	22
<b>Respiratory</b>	Gastro intestinal	Circulation	Neurological	Genito Urinary	Cancer
162 patients	49	46	45	31	27
<b>Neurological</b>	Gastro intestinal	Circulation	Genito Urinary	Respiratory	Cancer
150 patients	52	45	44	45	30
<b>Cancer</b>	Gastro intestinal	Neurological	Respiratory	Infectious diseases	Genito Urinary
126 patients	45	30	27	26	21

# Heart disease pathway of a page – Why Bradford chose



Initial contact to end of treatment

**NHS Bradford City CCG**

- Variation - 7<sup>th</sup> worst mortality rate for CVD <75years old
- 28% of all deaths amongst <75 year olds
- Programme overview - Statin Switches, Hypertension, Stroke prevention
  - Over 6000 on simvastatin with total cholesterol >4 mmol/l or LDL >2 mmol/l (no direct comparison of simvastatin vs atorvastatin)
  - Converted to only two doses of statin (40mg and 80mg atorvastatin) as per ACC guide (greater benefits since NNT=62 for moderate/high intensity cholesterol management vs. NNT=156 for low intensity)
- Switched 6,000 patients (completed in 3 months)
- Improved mortality – including **210 less deaths** last year (£1.6M)
- **17,000** people helped, either better or for the first time
- **38,000** people monitoring BP remotely

# Cardiovascular Disease Prevention: Risk Detection and Management in Primary Care

The Interventions	<b>Cross Cutting:</b> 1. NHS Health Check - systematic detection of high BP, AF, NDH, T2DM, CKD, high cholesterol, CVD risk 2. System level action to support guideline implementation by clinicians 3. Support for patient activation, individual behaviour change and self management					
	<u>High BP detection and treatment</u>	<u>AF detection &amp; anticoagulation</u>	<u>Detection, CVD risk assessment, treatment</u>	<u>Type 2 Diabetes preventive intervention</u>	<u>Diabetes detection and treatment</u>	<u>CKD detection and management</u>
<u>The Opportunities</u>	5 million un-diagnosed. 40% poorly controlled	30% undiagnosed. Over half untreated or poorly controlled	85% of FH undiagnosed. Most people at high CVD risk don't receive statins	5 million with NDH. Most do not receive intervention	940k undiagnosed. 40% do not receive all 8 care processes	1.2m undiagnosed. Many have poor BP & proteinuria control
The Evidence	BP lowering prevents strokes and heart attacks	Anticoagulation prevents 2/3 of strokes in AF	Behaviour change and statins reduce lifetime risk of CVD	Intensive behaviour change (eg NHS DPP) reduces T2DM risk 30-60%	Control of BP, HbA1c and lipids improves CVD outcomes	Control of BP, CVD risk and proteinuria improves outcomes
The Risk Condition	<u>Blood Pressure</u>	<u>Atrial Fibrillation</u>	<u>High CVD risk &amp; Familial H/cholesterol</u>	<u>Non Diabetic Hyperglycemia ('pre-diabetes')</u>	<u>Type 1 and 2 Diabetes</u>	<u>Chronic Kidney Disease</u>

## Detection and 2°/3° Prevention

The Outcomes	50% of all strokes & heart attacks, plus CKD & dementia	5-fold increase in strokes, often of greater severity	Marked increase in premature death and disability from CVD	Marked increase in Type 2 DM and CVD at an earlier age	Marked increase in heart attack, stroke, kidney, eye, nerve damage	Increase in CVD, acute kidney injury & renal replacement
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# Spreading the impact

- West Hampshire estimate 52 strokes averted through systematic support to improve GP management of AF.
- In Lambeth and Southwark (London), pharmacist management in blood pressure and AF has improved control and contributed to averting 45 strokes
- Medway in Kent are re-designing the entire CVD secondary prevention system to mirror this NHS RightCare Optimal Solution
- The hypertension and atrial fibrillation components will be copied in every part of the NHS in England in 2017, via the NHS RightCare approach
- “This is a game changer” – British Health Foundation

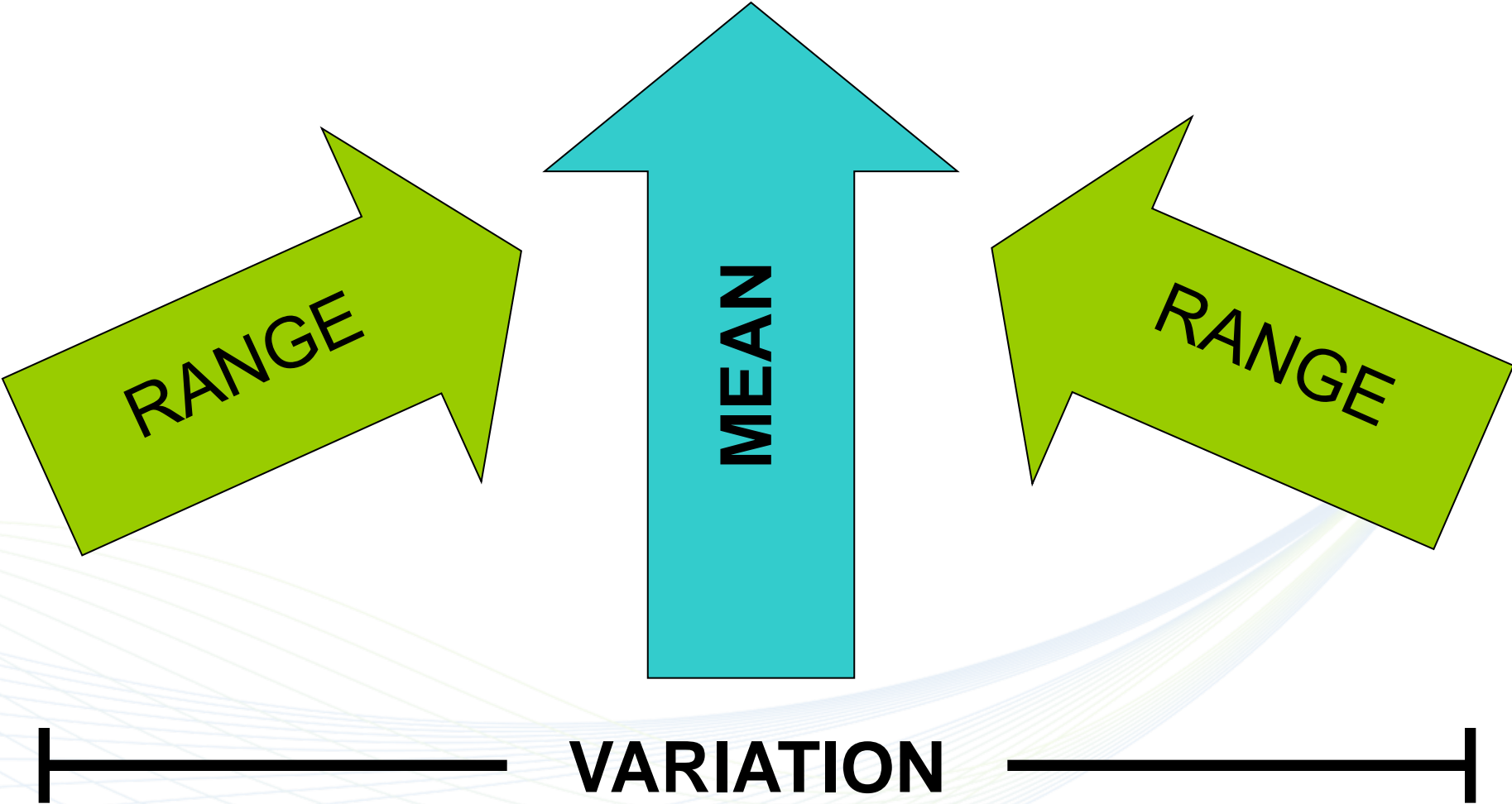
# Systems and Pathways

## Multi-Pathways on a page

	Prevention & Public Health	Estimated Prevalence	Detection	Primary Care Management	Self Care	Prescribing	Elective	Non-Elective	Step-up/ Step-down	Rehab	Outcome	End of Life
Breast Cancer	Red	Red	Green	Yellow		Blue ▲	Blue ▲	Red	Green	Yellow	Green	Red
Lower GI Cancer	Red	Red	Green	Yellow			Blue ▲	Red	Green	Yellow	Yellow	Red
Lung Cancer	Red	Red	Red	Yellow			Blue ▲	Red	Green	Yellow	Red	Red
Neurological				Red	Yellow	Blue ▲	Blue ▲	Red	Green	Green	Yellow	Red
Serious Mental Illness	Red	Red		Yellow	Green	Blue ▼		Red	Red		Red	
Common mental health disorders	Red	Red	Red	Red	Yellow	Blue ▲					Yellow	
Dementia	Red	Yellow	Red	Red	Yellow	Blue ▲		Red	Red	Green	Yellow	Red
CHD	Red	Red	Green	Red	Yellow	Blue ▲	Blue ▲	Red	Green	Green	Yellow	Red
Stroke	Red	Red	Yellow	Red	Yellow	Blue ▲	Blue ▲	Red	Yellow	Green	Yellow	Red
Diabetes	Red	Red	Red	Red	Yellow	Blue ▼		Red	Green	Green	Yellow	
Renal	Red	Yellow	Yellow	Yellow	Yellow	Blue ▲	Blue ▲	Red	Green	Green	Green	Red
COPD	Yellow	Red	Green	Red	Yellow	Blue ▲		Red	Green	Green	Red	Red
Asthma	Yellow			Red	Yellow	Blue ▲		Red	Green	Green	Red	
Musculoskeletal	Red	Yellow	Blue ▲	Red	Yellow	Blue ▲	Blue ▲	Red	Green	Yellow	Yellow	
Frailty	Red		Blue ▲	Red	Yellow			Red	Red	Yellow	Red	Red
Multiple Conditions	Red			Red	Yellow				Red	Yellow	Red	Red

# What are we trying to achieve?

Reduce the range of variation, Improve the mean



## For further information -

- **Email RightCare**
- **[rightcare@nhs.net](mailto:rightcare@nhs.net)**
  
- **Twitter:**
- **@nhsrightcare**
- **@matthew\_cripps1**
  
- **Visit RightCare:**
- **<http://www.england.nhs.uk/rightcare/>**