

# National COPD Audit Programme

## Primary care audit 2015-17

### Local health board report

#### Cardiff & Vale

*(Winter 2017)*

*This document contains the local health board and component cluster level results, in comparison to the national results from the 2015-17 primary care audit.*

*If you have any questions about any of the content, please contact the audit team on [copd@rcplondon.ac.uk](mailto:copd@rcplondon.ac.uk) or 020 3075 1526 / 1566 / 1565.*

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The National COPD Audit Programme is commissioned by the Healthcare Quality Improvement Partnership (HQIP) as part of the National Clinical Audit (NCA) Programme. HQIP is led by a consortium of the Academy of Medical Royal Colleges, the Royal College of Nursing and National Voices. Its aim is to promote quality improvement, and in particular to increase the impact that clinical audit has on healthcare quality in England and Wales. HQIP holds the contract to manage and develop the NCA Programme, comprising more than 30 clinical audits that cover care provided to people with a wide range of medical, surgical and mental health conditions. The programme is funded by NHS England, the Welsh Government and, with some individual audits, also funded by the Health Department of the Scottish Government, DHSSPS Northern Ireland and the Channel Islands.

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## About this report

This report is the local health board and component cluster level report for **Cardiff & Vale** for the National COPD Audit Programme's primary care audit 2015-2017.

This report presents regional figures in order to support local health boards, clusters and primary care staff to better understand the quality of care received by patients and, consequently, to inform quality improvement projects. It is **designed to be read alongside the national report 'Planning for every breath'** and, therefore, the **key findings, commentary and methodology have not been duplicated here**. Additionally, section 5 of the national report (displaying the data queries in relation to severe mental illness, smoking status, and socioeconomic deprivation at both health board and national level) has not been replicated here. This decision was taken because of the risk of small numbers in the cluster level analysis.

The following are available on the national report website of the national report (<https://www.rcplondon.ac.uk/planningeverybreath>):

- Both parts of the national report:
  - The shorter report contains the key findings, recommendations, and quality improvement (QI) opportunities,
  - The longer report contains the results, and analysis methodology employed for the audit.
- Local health board and component cluster level reports for all other Welsh local health boards.
- A key findings infographic.
- A summary slide set of the findings, with a QI focus.

## Participation

The methodology for the National COPD Audit Programme's primary care audit 2015-2017 builds upon the learning from the 2014-15 audit. This audit uses data extracted from general practices (GP) in Wales in June 2017, pertaining to the two years following the last audit (1 April 2015 to 31 March 2017).

Data were extracted directly from GP electronic systems by the NHS Wales Informatics Service (NWIS), for all practices that opted-in. Data cleaning and analysis was conducted by Imperial College London.

The 2017 audit included **407/435** practices, 93.6% of all practices in Wales.

*Number of participating practices and clusters, per local health board, in the 2017 primary care audit*

Local health board (LHB) / cluster	Total practices	Number participating	Percent participating
<b>Wales</b>	<b>435</b>	<b>407</b>	<b>93.6%</b>
<b>Cardiff &amp; Vale (CVU)</b>	<b>66</b>	<b>53</b>	<b>80.3%</b>
Cardiff East	5	4	80.0%
Cardiff North	11	11	100.0%
Cardiff South East	8	6	75.0%
Cardiff South West	11	7	63.6%
Cardiff West	8	8	100.0%
Central Vale	8	7	87.5%
City & Cardiff South	7	5	71.4%
Eastern Vale	5	3	60.0%
Western Vale	3	2	66.7%
<b>Abertawe Bro Morgannwg (ABMU)</b>	<b>73</b>	<b>69</b>	<b>94.5%</b>
Afan	9	9	100.0%
Bayhealth	9	8	88.9%
Bridgend East Network	6	6	100.0%
Bridgend North Network	8	8	100.0%
Bridgend West Network	4	4	100.0%
Cityhealth	10	8	80.0%
Cwmtawe	5	5	100.0%
Llwchwr	5	5	100.0%
Neath	8	8	100.0%
Penderi	6	5	83.3%
Upper Valleys	4	4	100.0%
<b>Aneurin Bevan (AB)</b>	<b>80</b>	<b>79</b>	<b>98.8%</b>
Blaenau Gwent East	5	5	100.0%
Blaenau Gwent West	6	6	100.0%
Caerphilly East	7	7	100.0%
Caerphilly North	11	11	100.0%
Caerphilly South	7	7	100.0%

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Monmouthshire North	8	8	100.0%
Monmouthshire South	5	4	80.0%
Newport East	7	7	100.0%
Newport North	6	6	100.0%
Newport West	5	5	100.0%
Torfaen North	6	6	100.0%
Torfaen South	7	7	100.0%
<b>Betsi Cadwaladr (BCU)</b>	<b>108</b>	<b>105</b>	<b>97.2%</b>
Anglesey	11	11	100.0%
Arfon	11	11	100.0%
Central & South Denbighshire	8	8	100.0%
Central Wrexham	7	7	100.0%
Conwy East	6	5	83.3%
Conwy West	12	12	100.0%
Dwyfor	5	5	100.0%
Meirionnydd	6	6	100.0%
North & West Wrexham	6	6	100.0%
North Denbighshire	6	6	100.0%
North East Flintshire	8	7	87.5%
North West Flintshire	7	6	85.8%
South Flintshire	7	7	100.0%
South Wrexham	8	8	100.0%
<b>Cwm Taf (CT)</b>	<b>42</b>	<b>38</b>	<b>90.5%</b>
North Cynon	6	5	83.3%
North Merthyr Tydfil	4	4	100.0%
North Rhondda	5	4	80.0%
North Taf Ely	4	4	100.0%
South Cynon	5	5	100.0%
South Merthyr Tydfil	5	5	100.0%
South Rhondda	9	7	77.8%
South Taf Ely	4	4	100.0%
<b>Hywel Dda (HD)</b>	<b>50</b>	<b>50</b>	<b>100.0%</b>
Amman/Gwendraeth	7	7	100.0%
Llanelli	7	7	100.0%
North Ceredigion	7	7	100.0%
North Pembrokeshire	9	9	100.0%
South Ceredigion	7	7	100.0%
South Pembrokeshire	5	5	100.0%
Taf / Tywi	7	7	100.0%
<b>Powys (PT)</b>	<b>16</b>	<b>13</b>	<b>81.3%</b>
Mid Powys	5	4	80.0%
North Powys	7	6	85.7%
South Powys	4	3	75.0%



## Section 1: Demographics and comorbidities

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### 1.3 Comorbidities\*

#### *Rationale for inclusion:*

To allow assessment of the percentage of COPD patients with co-morbidities (to better categorise the audited cohort). **NICE CG101: Chronic obstructive pulmonary disease in over 16s: diagnosis and management**<sup>1</sup> recommends that co-morbidities are considered in the management of patients with COPD.

#### *Rationale for inclusion of depression and anxiety screening:*

**NICE CG91: Depression in adults with a chronic physical health problem: recognition and management**<sup>2</sup> / **NICE CG113: Generalised anxiety disorder and panic disorder in adults: management**<sup>3</sup>

NICE guidelines for both depression and anxiety recommend i) primary care to be alert to possible depression (particularly in patients with a past history of depression or a chronic physical health problem with associated functional impairment) and consider asking patients who may have depression two screening questions; and ii) consider the diagnosis of generalised anxiety disorder in people presenting with anxiety or significant worry, and in people who attend primary care frequently who have a chronic physical health problem.

Condition	Wales N=82,696	CVU N=7,892	Cardiff East N=1,065	Cardiff North N=1,495	Cardiff South East N=848	Cardiff South West N=1,149	Cardiff West N=982	Central Vale N=1,235	City & Cardiff South N=343	Eastern Vale N=398	Western Vale N=377
Asthma	34,622 (41.9%)	3,235 (41.0%)	413 (38.8%)	752 (50.3%)	357 (42.1%)	404 (35.2%)	483 (49.2%)	408 (33.0%)	146 (42.6%)	120 (30.2%)	152 (40.3%)
Bronchiectasis	3,946 (4.8%)	336 (4.3%)	41 (3.8%)	81 (5.4%)	30 (3.5%)	34 (3.0%)	49 (5.0%)	50 (4.0%)	16 (4.7%)	18 (4.5%)	17 (4.5%)
Coronary heart disease	33,054 (40.0%)	3,272 (41.5%)	486 (45.6%)	587 (39.3%)	280 (33.0%)	506 (44.0%)	385 (39.2%)	531 (43.0%)	160 (46.6%)	190 (47.7%)	147 (39.0%)

\* For information on gender (1.1) and age (1.2) of the audit cohort, please refer to the national report.

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<b>Diabetes</b>	<b>18,685</b> <b>(22.6%)</b>	1,568 (19.9%)	188 (17.7%)	344 (23.0%)	164 (19.3%)	232 (20.2%)	183 (18.6%)	221 (17.9%)	86 (25.1%)	76 (19.1%)	74 (19.6%)
<b>Heart failure</b>	<b>7,443</b> <b>(9.0%)</b>	752 (9.5%)	95 (8.9%)	178 (11.9%)	58 (6.8%)	85 (7.4%)	111 (11.3%)	94 (7.6%)	39 (11.4%)	44 (11.1%)	48 (12.7%)
<b>Hypertension</b>	<b>43,588</b> <b>(52.7%)</b>	4,096 (51.9%)	554 (52.0%)	826 (55.3%)	392 (46.2%)	584 (50.8%)	511 (52.0%)	632 (51.2%)	204 (59.5%)	222 (55.8%)	171 (45.4%)
<b>Lung cancer</b>	<b>1,921</b> <b>(2.3%)</b>	203 (2.6%)	34 (3.2%)	31 (2.1%)	18 (2.1%)	31 (2.7%)	33 (3.4%)	24 (1.9%)	11 (3.2%)	11 (2.8%)	10 (2.7%)
<b>Painful conditions<sup>†</sup></b>	<b>10,450</b> <b>(12.6%)</b>	998 (12.7%)	152 (14.3%)	158 (10.6%)	104 (12.3%)	168 (14.6%)	116 (11.8%)	175 (14.2%)	41 (12.0%)	38 (9.5%)	46 (12.2%)
<b>Stroke</b>	<b>8,623</b> <b>(10.4%)</b>	944 (12.0%)	120 (11.3%)	175 (11.7%)	88 (10.4%)	118 (10.3%)	133 (13.5%)	138 (11.2%)	54 (15.7%)	61 (15.3%)	57 (15.1%)
<b>Osteoporosis</b>	<b>10,657</b> <b>(12.9%)</b>	1,144 (14.5%)	150 (14.1%)	224 (15.0%)	110 (13.0%)	122 (10.6%)	155 (15.8%)	169 (13.7%)	47 (13.7%)	120 (30.2%)	47 (12.5%)
<i>Mental health conditions</i>											
<b>Schizophrenia, bipolar and other psychotic illness</b>	<b>6,448</b> <b>(7.8%)</b>	786 (10.0%)	94 (8.8%)	181 (12.1%)	98 (11.6%)	111 (9.7%)	102 (10.4%)	89 (7.2%)	42 (12.2%)	49 (12.3%)	20 (5.3%)
<b>Anxiety</b>	<b>25,180</b> <b>(30.5%)</b>	2,443 (31.0%)	323 (30.3%)	445 (29.8%)	354 (41.7%)	426 (37.1%)	275 (28.0%)	322 (26.1%)	106 (30.9%)	118 (29.6%)	74 (19.6%)
<i>Screened for anxiety or been diagnosed in the past two years</i>	<b>4,108</b> <b>(5.0%)</b>	426 (5.4%)	60 (5.6%)	71 (4.7%)	61 (7.2%)	87 (7.6%)	46 (4.7%)	58 (4.7%)	13 (3.8%)	18 (4.5%)	12 (3.2%)
<b>Depression</b>	<b>24,861</b> <b>(30.1%)</b>	2,825 (35.8%)	383 (36.0%)	538 (36.0%)	353 (41.6%)	468 (40.7%)	323 (32.9%)	424 (34.3%)	114 (33.2%)	106 (26.6%)	116 (30.8%)
<i>Screened for depression or been diagnosed in the past two years</i>	<b>14,465</b> <b>(17.5%)</b>	724 (9.2%)	66 (6.2%)	128 (8.6%)	84 (9.9%)	113 (9.8%)	111 (11.3%)	77 (6.2%)	33 (9.6%)	< 5	108 (28.6%)

<sup>†</sup> Defined as patients who had a record of 4 or more prescription analgesia medications in the last 12 months, OR 4 or more specified anti-epileptics in the absence of an epilepsy Read code in the last 12 months.





## Section 2: Getting the diagnosis right

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### Navigation

This section contains the following tables. If viewing this report on a computer, you can select the table that you wish to see from the list below.

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- [2.2 X-ray](#)
  - [2.2.1 The percentage of people with COPD who had a chest x-ray or CT scan 6 months prior to diagnosis or within 6 months of diagnosis \(i.e. when COPD code first added to disease register\) \(for diagnoses made in the last two years\)](#)

### 2.1 Spirometry

#### *Rationale for inclusion:*

**NICE CG101 COPD<sup>1</sup> and NICE QS 10 quality statement 1:** *People aged over 35 years who present with a risk factor and one or more symptoms of chronic obstructive pulmonary disease (COPD) should have post -bronchodilator spirometry. A post bronchodilator FEV1/ vital capacity (VC)<sup>‡</sup> or FEV1/FVC < 0.7 is required to make a diagnosis of COPD.<sup>4</sup>*

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<sup>‡</sup>A post bronchodilator FEV1/Slow or relaxed VC Read code does not exist, so it was not possible to extract information about the frequency with which this particular diagnostic test is conducted.

COPD can be diagnosed when the patient has been exposed to a known risk factor, they have a typical clinical presentation and when there is an objective measurement of fixed airways obstruction as determined by good quality spirometry. A small minority of patients may need more complex hospital based lung function or they may be diagnosed with emphysema after CT scanning.

**2.1.1 The percentage of people diagnosed with COPD in the past 2 years who have a post-bronchodilator FEV1/FVC <0.7 (consistent with airways obstruction)**

<i>Spirometry code</i>	Wales N=10,868	CVU N=1,163	Cardiff East N=174	Cardiff North N=182	Cardiff South East N=106	Cardiff South West N=192	Cardiff West N=130	Central Vale N=213	City & Cardiff South N=46	Eastern Vale N=60	Western Vale N=60
<b>No 339m code</b>	<b>9,660 (88.8%)</b>	969 (83.3%)	172 (98.9%)	127 (69.8%)	94 (88.7%)	170 (88.5%)	96 (73.8%)	181 (85.0%)	46 (100%)	60 (100%)	23 (38.3%)
<b>339m is ≥0.2 and &lt;0.7</b>	<b>918 (8.5%)</b>	155 (13.3%)	< 5	46 (25.3%)	9 (8.5%)	21 (10.9%)	22 (16.9%)	25 (11.7%)	< 5	< 5	32 (53.3%)
<b>339m invalid or ≥0.7</b>	<b>290 (2.7%)</b>	39 (3.4%)	< 5	9 (4.9%)	< 5	< 5	12 (9.2%)	7 (3.3%)	< 5	< 5	5 (8.3%)

**2.1.2 Spirometry: The percentage of people diagnosed with COPD in the past 2 years who have any FEV1/FVC ratio code (including 339m) with a result of ≥0.2 and <0.7**

	Wales N=10,868	CVU N=1,163	Cardiff East N=174	Cardiff North N=182	Cardiff South East N=106	Cardiff South West N=192	Cardiff West N=130	Central Vale N=213	City & Cardiff South N=46	Eastern Vale N=60	Western Vale N=60
<b>Any spirometry codes ≥0.2 and &lt;0.7</b>	<b>5,906 (54.3%)</b>	665 (57.2%)	67 (38.5%)	106 (58.2%)	64 (60.4%)	118 (61.5%)	75 (57.7%)	144 (67.6%)	20 (43.5%)	33 (55.0%)	38 (60.0%)

## 2.2 X-ray

### 2.2.1 The percentage of people with COPD who had a chest X-ray or CT scan 6 months prior to diagnosis or within 6 months of diagnosis (for diagnoses made in the last two years)

**Rationale for inclusion:**

**NICE CG101 COPD<sup>1</sup>** recommends that at the time of their initial diagnostic evaluation, in addition to spirometry, all patients should have a chest x-ray to exclude other pathologies.

	Wales N=10,868	CVU N=1,163	Cardiff East N=174	Cardiff North N=182	Cardiff South East N=106	Cardiff South West N=192	Cardiff West N=130	Central Vale N=213	City & Cardiff South N=46	Eastern Vale N=60	Western Vale N=60
Chest x-ray within 6 months	4,300 (39.6%)	508 (43.7%)	51 (29.3%)	82 (45.1%)	48 (45.3%)	96 (50.0%)	44 (33.8%)	113 (53.1%)	9 (19.6%)	36 (60.0%)	29 (48.3%)



## Section 3: Assessing severity and future risk

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### Navigation

This section contains the following tables. If viewing this report on a computer, you can select the table that you wish to see from the list below.

- [3.1 The proportion of people with COPD with MRC scores 1, 2, 3, 4, 5 and 'not recorded' in the last year](#)
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### 3.1 The proportion of people with COPD with MRC scores 1, 2, 3, 4, 5 and 'not recorded' in the last year

#### *Rationale for inclusion:*

**NICE CG101 COPD:**<sup>1</sup> *One of the primary symptoms of COPD is breathlessness. The Medical Research Council (MRC) breathlessness scale should be used to grade the breathlessness according to the level of exertion required to elicit it.*

Breathlessness of MRC score 3 or more represents a significant functional impairment.<sup>5</sup> Patients with MRC score 3 or more should be receiving the key components of a review. They should be receiving pulmonary rehabilitation as soon as possible. They may also require additional pharmacological interventions and oxygen therapy so a more targeted and intensive review may be required.

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MRC score	Wales N=82,696	CVU N=7,892	Cardiff East N=1,065	Cardiff North N=1,495	Cardiff South East N=848	Cardiff South West N=1,149	Cardiff West N=982	Central Vale N=1,235	City & Cardiff South N=343	Eastern Vale N=398	Western Vale N=377
<b>1</b>	<b>6,368 (7.7%)</b>	626 (7.9%)	81 (7.6%)	150 (10.0%)	33 (3.9%)	57 (5.0%)	121 (12.3%)	91 (7.4%)	23 (6.7%)	39 (9.8%)	31 (8.2%)
<b>2</b>	<b>22,144 (26.8%)</b>	2,069 (26.2%)	254 (23.8%)	433 (29.0%)	232 (27.4%)	328 (28.5%)	230 (23.4%)	343 (27.8%)	59 (17.2%)	102 (25.6%)	88 (23.3%)
<b>3</b>	<b>13,715 (16.6%)</b>	1,414 (17.9%)	150 (14.1%)	234 (15.7%)	144 (17.0%)	257 (22.4%)	138 (14.1%)	296 (24.0%)	43 (12.5%)	92 (23.1%)	60 (15.9%)
<b>4</b>	<b>7,021 (8.5%)</b>	888 (11.3%)	118 (11.1%)	112 (7.5%)	90 (10.6%)	197 (17.1%)	102 (10.4%)	129 (10.4%)	46 (13.4%)	55 (13.8%)	39 (10.3%)
<b>5</b>	<b>1,153 (1.4%)</b>	148 (1.9%)	25 (2.3%)	23 (1.5%)	26 (3.1%)	19 (1.7%)	22 (2.2%)	16 (1.3%)	6 (1.7%)	< 5	7 (1.9%)
<b>Not recorded</b>	<b>32,295 (39.1%)</b>	2,747 (34.8%)	437 (41.0%)	543 (36.3%)	323 (38.1%)	291 (25.3%)	369 (37.6%)	360 (29.1%)	166 (48.4%)	106 (26.6%)	152 (40.3%)

*Grade 1 – not troubled by breathlessness or strenuous exercise*

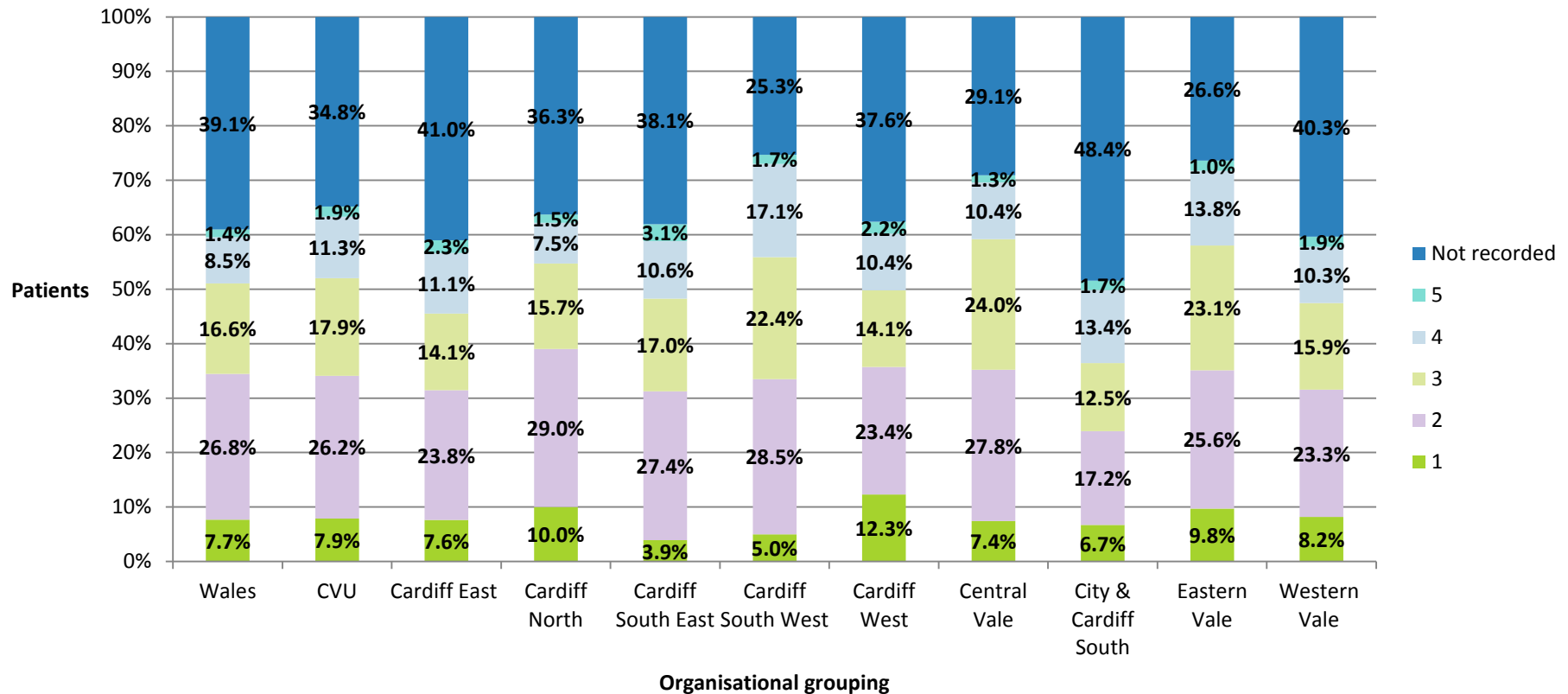
*Grade 2 – short of breath when hurrying or walking up a slight hill*

*Grade 3 – walks slower than contemporaries on level ground because of breathlessness or has to stop for breath*

*Grade 4 – stops to breathe after walking 100 metres (109 yards) or after a few minutes walking on level ground*

*Grade 5 – too breathless to leave the house or breathless when dressing or undressing*

*The proportion of patients with each MRC score, or 'not recorded' in the last year*



### 3.2 The proportion of people with COPD who have a measure of FEV1 %-predicted value recorded in the last year

**Rationale for inclusion:**

**NICE CG101 COPD:**<sup>1</sup> There is no specific recommendation to measure annually but treatment thresholds for pulmonary rehabilitation, inhaled therapies and assessment for oxygen are determined by FEV1%-predicted and the subsequent classification of severity.

	Wales N=82,696	CVU N=7,892	Cardiff East N=1,065	Cardiff North N=1,495	Cardiff South East N=848	Cardiff South West N=1,149	Cardiff West N=982	Central Vale N=1,235	City & Cardiff South N=343	Eastern Vale N=398	Western Vale N=377
FEV1 %- predicted value in last year	22,756 (27.5%)	1,634 (20.7%)	353 (33.1%)	267 (17.9%)	151 (17.8%)	122 (10.6%)	201 (20.5%)	308 (24.9%)	36 (10.5%)	73 (18.3%)	123 (32.6%)

### 3.3 The proportion and status of people with COPD who were asked about tobacco smoking in the last year

#### *Rationale for inclusion:*

**NICE QS43 – Smoking: supporting people to stop<sup>6</sup> quality statement 1 (linked to NICE QS10):** *People are asked if they smoke by their healthcare practitioner, and those who smoke are offered advice on how to stop.*

Tobacco smoking is the cause of COPD in the vast majority of people. Stopping smoking reduces the rate of decline of lung function and reduces exacerbations. Other treatments for COPD work better if tobacco use has ceased.<sup>7,8</sup>

Smoking status	Wales N=82,696	CVU N=7,892	Cardiff East N=1,065	Cardiff North N=1,495	Cardiff South East N=848	Cardiff South West N=1,149	Cardiff West N=982	Central Vale N=1,235	City & Cardiff South N=343	Eastern Vale N=398	Western Vale N=377
Never smoker	7,574 (9.2%)	554 (7.0%)	60 (5.6%)	170 (11.4%)	62 (7.3%)	32 (2.8%)	101 (10.3%)	55 (4.5%)	18 (5.2%)	37 (9.3%)	19 (5.0%)
Ex-smoker	34,551 (41.8%)	3,508 (44.5%)	458 (43.0%)	669 (44.7%)	325 (38.3%)	530 (46.1%)	431 (43.9%)	601 (48.7%)	116 (33.8%)	196 (49.2%)	182 (48.3%)
Current smoker	21,924 (26.5%)	2,287 (29.0%)	320 (30.0%)	323 (21.6%)	283 (33.4%)	416 (36.2%)	219 (22.3%)	413 (33.4%)	121 (35.3%)	99 (24.9%)	93 (24.7%)
Not asked about smoking	18,647 (22.6%)	1,543 (19.6%)	227 (21.3%)	333 (22.3%)	178 (21.0%)	171 (14.9%)	231 (23.5%)	166 (13.4%)	88 (25.7%)	66 (16.6%)	83 (22.0%)

### 3.4 Exacerbation count in the past year

#### *Rationale for inclusion:*

**NICE CG101 COPD:**<sup>1</sup> *A more comprehensive assessment of severity includes ... the frequency of exacerbations ...* The guideline also advises on treatment thresholds for pulmonary rehabilitation, self-management planning and inhaled therapies according to exacerbation frequency.

Exacerbations accelerate the decline of COPD, impair quality of life during the episode and, if left untreated, can result in hospitalisation and increase risk of death.<sup>9,10,11</sup> Recovery can be prolonged during which time the patient and carer will need additional physical and psychosocial support. Recognising and recording exacerbations should be a key element of risk stratification in a general practice COPD population.

The learning from the first extraction was that exacerbation Read codes (eg 66Yf) are not reliably used. Therefore, in order to ensure that we were able to provide a more comprehensive and accurate breakdown of exacerbation rates at a population level, we have used a validated modelling method with high reliability.<sup>12,13,14,15</sup> LRTI codes and concurrent respiratory antibiotic and oral prednisolone codes are used in this model (for more information, please refer to the methodology in the national report). An analysis solely using extracted exacerbation Read codes is also presented, for comparative purposes (see 3.4.2).

#### **3.4.1 Exacerbation count in the past year – using validated method**

Due to absent LRTI codes from some practices, there is a slightly lower COPD population denominator for this measure.<sup>§</sup>

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<sup>§</sup> This is due to several practices closing partway through the extraction period.



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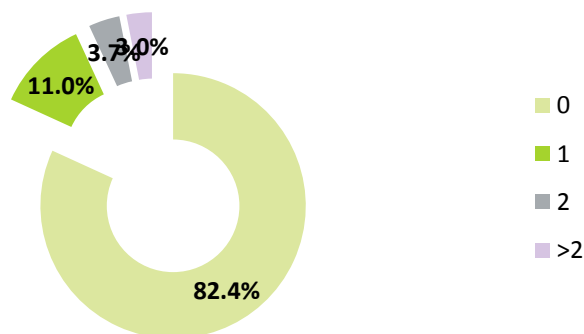
<i>Number of exacerbations</i>	<b>Wales N=82,133</b>	<b>CVU N=7,547</b>	<b>Cardiff East N=1,065</b>	<b>Cardiff North N=1,495</b>	<b>Cardiff South East N=610</b>	<b>Cardiff South West N=1,149</b>	<b>Cardiff West N=982</b>	<b>Central Vale N=1,128</b>	<b>City &amp; Cardiff South N=343</b>	<b>Eastern Vale N=398</b>	<b>Western Vale N=377</b>
<b>0</b>	<b>47,724 (58.1%)</b>	4,271 (56.6%)	594 (55.8%)	927 (62.0%)	392 (64.3%)	545 (47.4%)	604 (61.5%)	607 (53.8%)	196 (57.1%)	229 (57.5%)	177 (46.9%)
<b>1</b>	<b>15,017 (18.3%)</b>	1,478 (19.6%)	229 (21.5%)	275 (18.4%)	117 (19.2%)	243 (21.1%)	168 (17.1%)	218 (19.3%)	74 (21.6%)	73 (18.3%)	81 (21.5%)
<b>2</b>	<b>7,412 (9.0%)</b>	749 (9.9%)	108 (10.1%)	130 (8.7%)	39 (6.4%)	139 (12.1%)	85 (8.7%)	119 (10.5%)	35 (10.2%)	44 (11.1%)	50 (13.3%)
<b>&gt;2</b>	<b>11,980 (14.6%)</b>	1,049 (13.9%)	134 (12.6%)	163 (10.9%)	62 (10.2%)	222 (19.3%)	125 (12.7%)	184 (16.3%)	38 (11.1%)	52 (13.1%)	69 (18.3%)

**3.4.2 Exacerbation count in the past year – using GP recorded exacerbation codes**

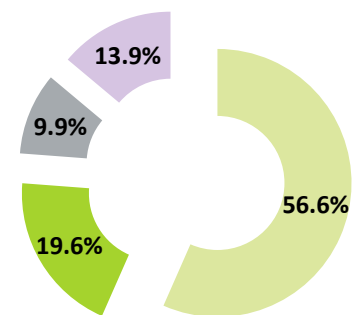
<i>Number of exacerbations</i>	<b>Wales N=82,696</b>	<b>CVU N=7,892</b>	<b>Cardiff East N=1,065</b>	<b>Cardiff North N=1,495</b>	<b>Cardiff South East N=848</b>	<b>Cardiff South West N=1,149</b>	<b>Cardiff West N=982</b>	<b>Central Vale N=1,235</b>	<b>City &amp; Cardiff South N=343</b>	<b>Eastern Vale N=398</b>	<b>Western Vale N=377</b>
<b>0</b>	<b>68,458 (82.8%)</b>	6,501 (82.4%)	914 (85.8%)	1248 (83.5%)	716 (84.4%)	897 (78.1%)	761 (77.5%)	1014 (82.1%)	298 (86.9%)	352 (88.4%)	301 (79.8%)
<b>1</b>	<b>8,793 (10.6%)</b>	867 (11.0%)	99 (9.3%)	156 (10.4%)	74 (8.7%)	154 (13.4%)	124 (12.6%)	150 (12.1%)	29 (8.5%)	30 (7.5%)	51 (13.5%)
<b>2</b>	<b>3,064 (3.7%)</b>	290 (3.7%)	35 (3.3%)	50 (3.3%)	27 (3.2%)	51 (4.4%)	52 (5.3%)	42 (3.4%)	8 (2.3%)	10 (2.5%)	15 (4.0%)
<b>&gt;2</b>	<b>2,381 (2.9%)</b>	234 (3.0%)	17 (1.6%)	41 (2.7%)	31 (3.7%)	47 (4.1%)	45 (4.6%)	29 (2.3%)	8 (2.3%)	6 (1.5%)	10 (2.7%)

Exacerbation count in the past year in the health board

Cardiff and Vale University LHB  
Using GP recorded codes



Cardiff and Vale University LHB  
Using validated method



### 3.5 Oxygen: management and treatment

**Rationale for inclusion:**

**NICE QS10 - Quality statement 3:**<sup>4</sup> People with stable COPD and a persistent resting stable oxygen saturation level of 92% or less have their arterial blood gases measured to assess whether they need long-term oxygen therapy.

Wales	CVU	Cardiff East	Cardiff North	Cardiff South East	Cardiff South West	Cardiff West	Central Vale	City & Cardiff South	Eastern Vale	Western Vale
People with stable COPD and a persistent resting stable oxygen saturation level of 92% or less in the last 2 years who have evidence of an arterial blood gas measurement or referral for home oxygen assessment										
N=6,734 747 (11.1%)	N=536 29 (5.4%)	N=79 8 (10.1%)	N=100 < 5	N=67 5 (7.5%)	N=94 < 5	N=64 < 5	N=75 < 5	N=23 < 5	N=19 < 5	N=15 < 5
People with COPD who have a record of oxygen therapy in the past 6 months										
N=82,696 639 (0.8%)	N=7,892 28 (0.4%)	N=1,065 5 (0.5%)	N=1,495 5 (0.3%)	N=848 < 5	N=1,149 < 5	N=982 5 (0.5%)	N=1,235 6 (0.5%)	N=343 < 5	N=398 < 5	N=377 5 (1.3%)



## Section 4: Providing high value care

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### Navigation

This section contains the following tables. If viewing this report on a computer, you can select the table that you wish to see from the list below.

- [4.1 People with COPD who are prescribed an inhaler who have evidence of an inhaler technique check in the past year](#)
- [4.2 The proportion of patients with COPD who have had the influenza immunisation in the preceding 1 August to 31 March](#)
- [4.3 The proportion of people with COPD who were recorded as a current smoker at any time in the past 2 years who have received or had a referral to a behavioural change intervention \(BCI\) and had a stop smoking drug prescribed](#)
- [4.4 Pulmonary rehabilitation](#)
  - [4.4.1 Proportion of people with COPD with MRC scores 3-5 who have been referred to PR in the past 3 years](#)
  - [4.4.2 Proportion of people with COPD who are breathless \(any MRC score\) and have been referred to PR in the past 3 years](#)
- [4.5 Use of inhaled therapies in the last 6 months of the audit period](#)
  - [4.5.1 Patients issued a prescription for inhaled therapy in the last six months of the audit period](#)
  - [4.5.2 Types of inhaled therapy prescribed to patients in the last six months of the audit period](#)

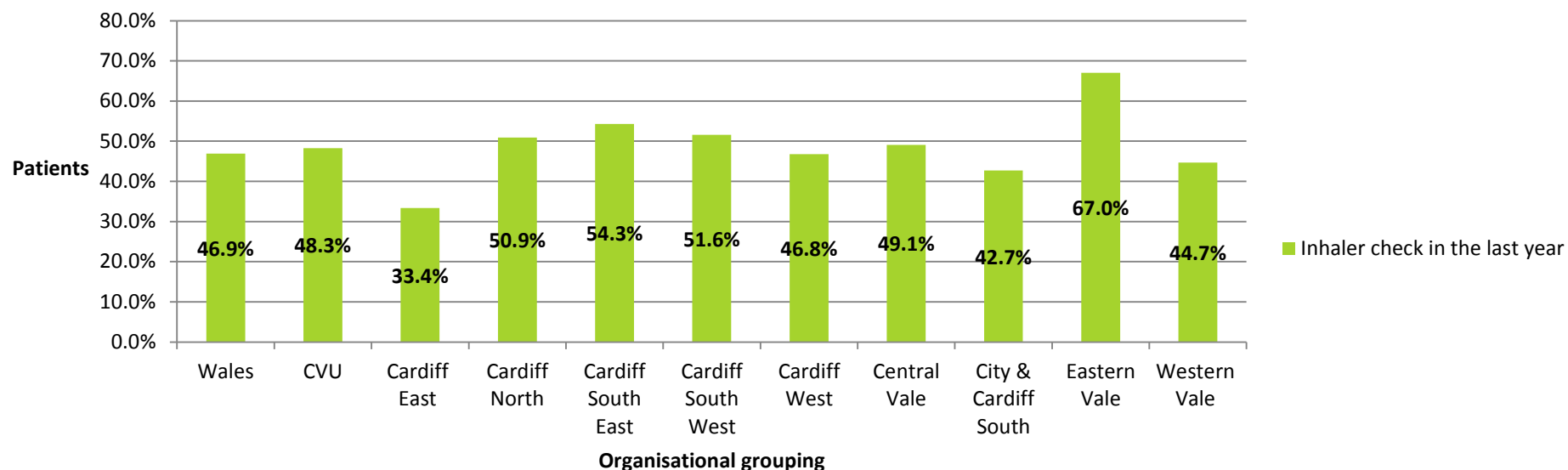
#### 4.1 People with COPD who are prescribed an inhaler who have evidence of an inhaler technique check in the past year

##### *Rationale for inclusion:*

**NICE QS10 - Quality statement 2:**<sup>4</sup> *People with COPD who are prescribed an inhaler have their inhaler technique assessed when starting treatment and then regularly during treatment.*

	Wales N=75,923	CVU N=7,290	Cardiff East N=988	Cardiff North N=1,343	Cardiff South East N=781	Cardiff South West N=1,072	Cardiff West N=897	Central Vale N=1,172	City & Cardiff South N=321	Eastern Vale N=358	Western Vale N=358
<b>Inhaler check in the last year</b>	<b>35,572 (46.9%)</b>	3,522 (48.3%)	330 (33.4%)	683 (50.9%)	424 (54.3%)	553 (51.6%)	420 (46.8%)	575 (49.1%)	137 (42.7%)	240 (67.0%)	160 (44.7%)

The percentage of patients with evidence of an inhaler check in the last year



#### 4.2 The proportion of patients with COPD who have had the influenza immunisation in the preceding 1 August to 31 March

*Rationale for inclusion:*

**NICE CG101 COPD:**<sup>1</sup> *Pneumococcal vaccination and an annual influenza vaccination should be offered to all patients with COPD as recommended by the Chief Medical Officer.*

	Wales N=82,696	CVU N=7,892	Cardiff East N=1,065	Cardiff North N=1,495	Cardiff South East N=848	Cardiff South West N=1,149	Cardiff West N=982	Central Vale N=1,235	City & Cardiff South N=343	Eastern Vale N=398	Western Vale N=377
<b>Influenza immunisation received</b>	<b>54,602 (66.0%)</b>	5,435 (68.9%)	676 (63.5%)	1,075 (71.9%)	551 (65.0%)	828 (72.1%)	666 (67.8%)	865 (70.0%)	206 (60.1%)	284 (71.4%)	284 (75.3%)

### 4.3 The proportion of people with COPD who were recorded as a current smoker at any time in the past 2 years who have received or had a referral to a behavioural change intervention (BCI) and had a stop smoking drug prescribed

**Rationale for inclusion:**

NICE QS10 is linked to QS43 - Smoking: supporting people to stop:<sup>6</sup>

- NICE QS43 - Quality statement 2: People who smoke are offered a referral to an evidence-based smoking cessation service.
- NICE QS43 - Quality statement 3: People who smoke are offered behavioural support with pharmacotherapy by an evidence-based smoking cessation service.
- NICE QS43 - Quality statement 4: People who seek support to stop smoking and who agree to take pharmacotherapy are offered a full course.
- NICE QS43 - Quality statement 5: People who smoke who have set a quit date with an evidence-based smoking cessation service are assessed for carbon monoxide levels 4 weeks after the quit date.

	Wales N=35,045	CVU N=3,481	Cardiff East N=581	Cardiff North N=526	Cardiff South East N=393	Cardiff South West N=565	Cardiff West N=311	Central Vale N=634	City & Cardiff South N=188	Eastern Vale N=161	Western Vale N=122
Current smokers who received BCI referral/smoking-cessation pharmacotherapy	4,383 (12.5%)	711 (20.4%)	110 (18.9%)	107 (20.3%)	71 (18.1%)	147 (26.0%)	65 (20.9%)	130 (20.5%)	31 (16.5%)	22 (13.7%)	28 (23.0%)

#### 4.4 Pulmonary rehabilitation (PR)

*Rationale for inclusion:*

**NICE QS10 - Quality statement 4:**<sup>4</sup> *People with stable COPD and exercise limitation due to breathlessness are referred to a PR programme.*

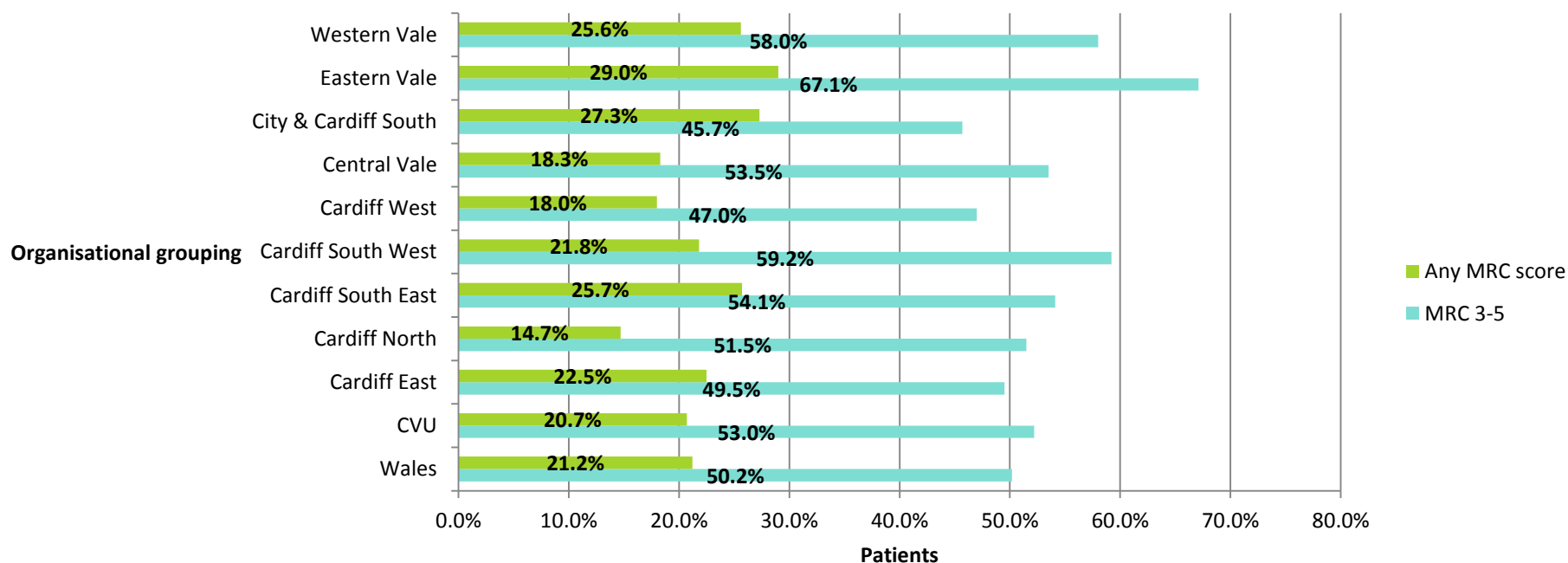
##### 4.4.1 Proportion of people with COPD with MRC scores 3-5 who have been referred to PR in the past 3 years

	Wales N=15,190	CVU N=1,339	Cardiff East N=210	Cardiff North N=200	Cardiff South East N=194	Cardiff South West N=152	Cardiff West N=164	Central Vale N=157	City & Cardiff South N=105	Eastern Vale N=76	Western Vale N=81
<b>MRC score 3-5 and referred</b>	<b>7,621 (50.2%)</b>	709 (53.0%)	104 (49.5%)	103 (51.5%)	105 (54.1%)	90 (59.2%)	77 (47.0%)	84 (53.5%)	48 (45.7%)	51 (67.1%)	47 (58.0%)

##### 4.4.2 Proportion of people with COPD who are breathless (any MRC score) and have been referred to PR in the past 3 years

	Wales N=47,974	CVU N=4,296	Cardiff East N=640	Cardiff North N=894	Cardiff South East N=490	Cardiff South West N=455	Cardiff West N=556	Central Vale N=616	City & Cardiff South N=209	Eastern Vale N=217	Western Vale N=219
<b>Any MRC score and referred to PR</b>	<b>10,179 (21.2%)</b>	889 (20.7%)	144 (22.5%)	131 (14.7%)	126 (25.7%)	99 (21.8%)	100 (18.0%)	113 (18.3%)	57 (27.3%)	63 (29.0%)	56 (25.6%)

*Patients with COPD who have been referred for PR*



#### 4.5 Use of inhaled therapies in the last 6 months of the audit period

**Rationale for inclusion:**

**NICE CG101 COPD<sup>1</sup>**

- *In people with stable COPD who remain breathless or have exacerbations despite use of short acting bronchodilators as required, offer the following as maintenance therapy: if FEV1 ≥ 50% predicted: either long-acting beta2 agonist (LABA) or long-acting muscarinic antagonist (LAMA) if FEV1 < 50% predicted: either LABA with an inhaled corticosteroid (ICS) in a combination inhaler, or LAMA.*
- *Offer LAMA in addition to LABA+ICS to people with COPD who remain breathless or have exacerbations despite taking LABA+ICS, irrespective of their FEV1.*

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- *In people with stable COPD and an FEV1  $\geq$  50% who remain breathless or have exacerbations despite maintenance therapy with a LABA: consider LABA+ICS in a combination inhaler, consider LAMA in addition to LABA where ICS is declined or not tolerated.*
- *Offer LAMA in addition to LABA+ICS to people with COPD who remain breathless or have exacerbations despite taking LABA+ICS, irrespective of their FEV1.*
- *Consider LABA+ICS in a combination inhaler in addition to LAMA for people with stable COPD who remain breathless or have exacerbations despite maintenance therapy with LAMA irrespective of their FEV1.*
- *The choice of drug(s) should take into account the person's symptomatic response and preference, and the drug's potential to reduce exacerbations, its side effects and cost.*

**4.5.1 Patients issued a prescription for inhaled therapy in the last six months of the audit period**

	Wales	CVU	Cardiff East	Cardiff North	Cardiff South East	Cardiff South West	Cardiff West	Central Vale	City & Cardiff South	Eastern Vale	Western Vale
<b>Patients on inhaled therapy</b>	<b>55,434 (67.0%)</b>	5,662 (71.7%)	768 (72.1%)	1,012 (67.7%)	546 (64.4%)	878 (76.4%)	650 (66.2%)	982 (79.5%)	238 (69.4%)	285 (71.6%)	303 (80.4%)

**4.5.2 Types of inhaled therapy prescribed to patients in the last six months of the audit period**

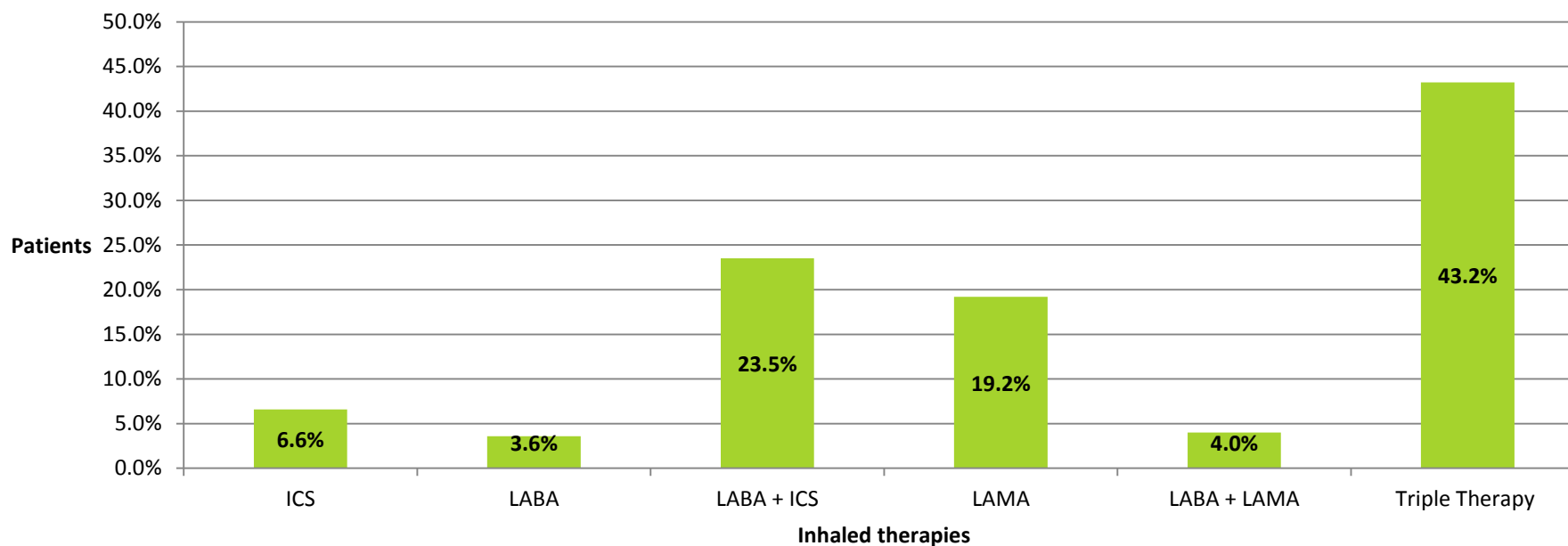
<i>Inhaled therapy</i>	Wales N=55,434	CVU N=5,662	Cardiff East N=768	Cardiff North N=1,012	Cardiff South East N=546	Cardiff South West N=878	Cardiff West N=650	Central Vale N=982	City & Cardiff South N=238	Eastern Vale N=285	Western Vale N=303
<b>ICS</b>	<b>4,493 (8.1%)</b>	372 (6.6%)	62 (8.1%)	84 (8.3%)	40 (7.3%)	43 (4.9%)	63 (9.7%)	35 (3.6%)	19 (8.0%)	8 (2.8%)	18 (5.9%)
<b>LABA</b>	<b>2,075 (3.7%)</b>	205 (3.6%)	17 (2.2%)	46 (4.5%)	8 (1.5%)	36 (4.1%)	21 (3.2%)	36 (3.7%)	< 5	17 (6.0%)	21 (6.9%)
<b>LABA + ICS</b>	<b>16,351 (29.5%)</b>	1,330 (23.5%)	198 (25.8%)	283 (28.0%)	114 (20.9%)	155 (17.7%)	200 (30.8%)	182 (18.5%)	49 (20.6%)	83 (29.1%)	66 (21.8%)
<b>LAMA</b>	<b>10,899 (19.7%)</b>	1,085 (19.2%)	131 (17.1%)	184 (18.2%)	120 (22.0%)	204 (23.2%)	108 (16.6%)	202 (20.6%)	42 (17.6%)	38 (13.3%)	56 (18.5%)



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<b>LABA + LAMA</b>	<b>1,699 (3.1%)</b>	227 (4.0%)	20 (2.6%)	44 (4.3%)	25 (4.6%)	50 (5.7%)	14 (2.2%)	48 (4.9%)	9 (3.8%)	9 (3.2%)	8 (2.6%)
<b>Triple therapy</b>	<b>19,917 (35.9%)</b>	2,443 (43.2%)	340 (44.3%)	371 (36.7%)	239 (43.8%)	390 (44.4%)	244 (37.5%)	479 (48.8%)	116 (48.7%)	130 (45.6%)	134 (44.2%)

*Inhaled therapies prescribed to patients in the last six months in your health board*



## **Appendix A: Report preparation**

This report was written by the following, on behalf of the National COPD Audit Programme's primary care workstream group.

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### **Professor C Michael Roberts**

Associate Director, Care Quality Improvement Department, Royal College of Physicians, London; Programme Clinical Lead, National COPD Audit Programme; and clinical academic lead for population health, UCL Partners.

## Appendix B: Participating clusters and practices in your health board

For the full list of participating practices and clusters, please refer to the national report.

<b>Abertawe Bro Morgannwg University Health Board</b>		
<b>Cluster</b>	<b>Practices</b>	
<b>Afan</b>	Afan Valley Group Practice	Cwmavon Health Centre (Dr Huw Browning)
	Cwmavon Health Centre (Dr Penney)	Cymmer Surgery
	Fairfield Medical Centre	King's Surgery
	Mount Surgery	Riverside Surgery
<b>BayHealth</b>	Gower Medical Practice	Kings Road Surgery (Swansea)
	St Thomas Surgery (Swansea)	The Grove Medical Centre
	The Mumbles Medical Practice	The Surgery (Sketty)
	Uplands Surgery	
<b>Bridgend East Network</b>	Ashfield Surgery	Newcastle Surgery
	Oak Tree Surgery	Riversdale House
	The Medical Centre (Pencoed)	The New Surgery (Pencoed)
<b>Bridgend North Network</b>	Bron y Garn Surgery	Llynfi Surgery
	New Street Surgery	New Surgery (Pontycymmer)
	Ogmore Vale Surgery	The Surgery (Nantymoel)
	Tynycoed Surgery	Woodlands Surgery
<b>Bridgend West Network</b>	Dr T D Eales Surgery	Heathbridge House
	The Portway Surgery	The Surgery (North Cornelly)
<b>CityHealth</b>	Brunswick Health Centre	Greenhill Medical Centre
	High Street Surgery	Kingsway Surgery
	Mayhill Surgery	Nicholl St Medical Centre
	SA Medical Centre	The Harbourside Health Centre
<b>Cwmtawe</b>	Clydach Primary Care Centre	Llwyn Brwydrau Surgery
	New Cross Surgery	Strawberry Place Surgery
	Sway Road Surgery	
<b>Llchwyr</b>	Gowerton Medical Centre	Pen y Bryn Surgery
	Princess Street Surgery	Talybont Surgery
	Ty'r Felin Surgery	
<b>Neath</b>	Alfred Street Surgery	Briton Ferry Health Centre (Dr H Wilkes & Partners)
	Castle Surgery	Dyfed Road Health Centre
	Skewen Medical Centre	Tabernacle Surgery
	Victoria Gardens Surgery	Waterside Medical Practice
<b>Penderi</b>	Cheriton Medical Centre	Cwmfelin Medical Centre
	Fforestfach Medical Centre (Dr Powell)	Fforestfach Medical Centre (Dr Rees)
	Manselton Surgery	
<b>Upper Valleys</b>	Amman Tawe Partnership (Cwm)	Dulais Valley Primary Care Centre
	Pontardawe Health Centre	Vale of Neath Practice
<b>Aneurin Bevan Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>Blaenau Gwent East</b>	Abertillery Group Practice	Blaen-y-Cwm Surgery
	Blaina Medical Practice	Cwm Calon
	Six Bells Medical Centre	

<b>Blaenau Gwent West</b>	Cwm Health Centre	Glan yr Afon Surgery
	Glanrhyd Surgery	Glyn Ebwy Surgery
	Health Centre (Tredegar)	Pen-y-Cae Surgery
<b>Caerphilly East</b>	Avicenna Medical Centre	North Celyn (Crumlin)
	Pontllanfraith Health Centre	Risca Surgery
	St. Luke's Surgery	Sunnybank Health Centre
	Wellspring Medical Centre	
<b>Caerphilly North</b>	Bargoed Hall Family Health Centre	Bryntirion Surgery
	Markham Medical Centre	Meddygfa Cwm Rhymni Practice
	Meddygfa Gelligaer Surgery	Nelson Surgery
	Oakfield Surgery	South Street Surgery
	The Health Centre (Dr Ali)	The Health Centre (Dr Mahto)
	The Lawn Medical Practice	
<b>Caerphilly South</b>	Court House Medical Centre	Lansbury Surgery
	Meddygfa Tridwr	Nantgarw Road Medical Centre
	The Village Surgery	Tonyfelin Medical Centre
	Ty Bryn Surgery	
<b>Monmouthshire North</b>	Castle Gate Medical Practice (Monmouth)	Dixton Road Surgery
	Hereford Road Surgery	Old Station Surgery
	The Medical Centre (Usk)	The Surgery (Usk)
	Tudor Gate Surgery	Wye Valley Practice
<b>Monmouthshire South</b>	Gray Hill Surgery	Mount Pleasant Practice
	Wyedean Practice	Vauxhall Surgery
<b>Newport East</b>	Beechwood Primary Care	Eveswell Surgery
	Lliswerry Medical Centre	Park Surgery (Newport)
	Ringland Health Centre	The Rugby Surgery
	Underwood Health Centre	
<b>Newport North</b>	Grange Clinic	Isca Medical Centre
	Malpas Brook Health Centre	Richmond Clinic
	St Julians Medical Centre	The Rogerstone Practice
<b>Newport West</b>	Bellevue Surgery	Bryngwyn Surgery
	St David's Clinic	St. Brides Medical Centre
	St. Paul's Clinic	
<b>Torfaen North</b>	Blaenavon Medical Practice	Churchwood Surgery
	Panteg Health Centre	The Mount Surgery
	The Surgery (Abersychan)	Trosnant Lodge
<b>Torfaen South</b>	Clark Avenue Surgery	Cwmbran Village Surgery
	Fairwater Medical Centre	Greenmeadow Surgery
	Llanyravon Surgery	New Chapel Street Surgery
	Oak Street Surgery	
<b>Betsi Cadwaladr University Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>Anglesey</b>	Cambria Surgery	Canolfan Iechyd Amlwch
	Coed Y Glyn Surgery	Gerafon Surgery
	Meddygfa Star Surgery	Meddygfa Victoria
	Parc Glas Surgery	The Health Centre (Llanfairpwll)
	The Health Centre (Ynys Mon)	The Surgery (Gwalchmai)
	The Surgery (Holyhead)	

<b>Arfon</b>	Bodnant	Bron Derw Medical Centre
	Corwen House	Dolwenith
	Felinheli & Porthaethwy Surgery	Glanfa
	Liverpool House	Market Street Surgery
	The Surgery (Llanberis)	Yr Hen Orsaf Medical Centre
<b>Central and South Denbighshire</b>	Beech House Surgery	Berllan Surgery
	Bronffynnon Surgery	Middle Lane Surgery
	Pen-y-Bont Surgery	Plas Meddyg
	The Clinic (Ruthin)	The Health Centre (Corwen)
<b>Central Wrexham</b>	Beechley Medical Centre	Borras Park Surgery
	Caia Park Surgery	Hillcrest Medical Centre (Wrexham)
	Plas Y Bryn Medical Centre	Strathmore Medical Practice
	The Surgery (Wrexham)	
<b>Conwy East</b>	Cadwgan Surgery	Kinmel Bay Medical Centre
	Rhoslan	Rysseldene Surgery
	The Gwrych Medical Centre	
<b>Conwy West</b>	Bodreinalt	Craig Y Don Medical Practice
	Llys Meddyg (Conwy)	Lonfa
	Meddygfa (Betwy y Coed)	Meddygfa Gyffin
	Mostyn House Medical Practice	Plas Menai Surgery
	The Medical Centre (Penrhyn Bay)	The Surgery (Llanwrst)
	Uwchaled Medical Practice	West Shore Surgery
<b>Dwyfor</b>	Meddyg Care	Meddygfa Rhydbach
	The Health Centre (Criccieth)	Treflan
	Ty Doctor	
<b>Meirionnydd</b>	Bron Meirion	Caerffynnon
	Meddygfa (Bala)	Minfor Surgery
	Tywyn Health Centre	
<b>North and West Wrexham</b>	Alyn Family Doctors	Bryn Darland Surgery
	Caritas Health Partnership	Forge Road Surgery
	Pen Y Maes Health Centre	The Health Centre (Coedpoeth)
<b>North Denbighshire</b>	Clarence Medical Centre	Healthy Prestatyn Iach (Ffordd Pendyffryn)
	Kings House Surgery	Lakeside Medical Centre
	Madryn House Surgery	Park House Surgery
<b>North East Flintshire</b>	Deeside Medical Centre	Marches Medical Practice
	Queensferry Medical Practice	Shotton Lane Surgery
	St Mark's Dee View Surgery	The Quay Health Centre (Dr Harney)
	The Quay Health Centre (Dr Lodhi)	
<b>North West Flintshire</b>	Bodowen Surgery	Eyton Place Surgery
	Panton Surgery	Pendre Surgery (Holywell)
	Pennant Surgery	The Laurels Surgery
<b>South Flintshire</b>	Bradley's Practice	Bromfield Medical Centre
	Caergwrle Medical Practice	Hope Family Medical Centre
	Leeswood Surgery	Pendre Surgery (Mold)
	Roseneath Medical Practice	
<b>South Wrexham</b>	Canofan Iechyd Llangollen Health Centre	Castle Health Care
	Crane Medical Centre	Ruabon Medical Centre
	The Health Centre (Beech Avenue)	The Surgery (Gardden Road)

	The Surgery (Hanmar)	The Surgery (Overton On Dee)
<b>Cardiff and Vale University Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>Cardiff East</b>	Llanedeyrn Health Centre	Llanrumney Medical Group
	Rumney Primary Care Centre	Willowbrook Surgery
<b>Cardiff North</b>	Birchgrove Surgery	Cathedral View Medical Centre
	Crwys Medical Centre	Cyncoed Medical Practice
	Llanishen Court Surgery	North Cardiff Medical Centre
	Roath House Surgery	St Isan Road Surgery
	St. Davids Medical Centre	The Penylan Surgery
	Whitchurch Road Surgery	
<b>Cardiff South East</b>	Cathays Surgery	Clifton Surgery
	Four Elms Medical Centre	North Road Medical Practice
	Roathwell Surgery	The City Surgery
<b>Cardiff South West</b>	Ely Bridge Surgery	Greenmount Surgery
	Kings Road Surgery (Cardiff)	Meddygfa Lansdowne Surgery
	Riverside HC Canton	Westway Surgery
	Woodlands Medical Centre	
<b>Cardiff West</b>	Danescourt Surgery	Fairwater Health Centre
	Llandaff North Medical Centre	Llandaff Surgery
	Meddygfa Llwynceilyn Practice	Radyr Medical Centre
	Whitchurch Village Practice	
<b>Central Vale</b>	Court Road Surgery	Highlight Park Medical Practice
	Sully Surgery	The Practice Of Health
	The Vale Family Practice	The Waterfront Medical Centre
	West Quay Medical Centre	
<b>City and Cardiff South</b>	Clare Road Medical Centre	Grange Medical Practice
	Grangetown Health Centre	Saltmead Medical Centre
	The Surgery (Grangetown)	
<b>Eastern Vale</b>	Dinas Powys MC	Stanwell Surgery
	Station Road Surgery	
<b>Western Vale</b>	Eryl Surgery	Western Vale Family Practice
<b>Cwm Taf Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>North Cynon</b>	Cwmaman Surgery	Foundary Town Clinic
	Maendy Place Surgery	Park Surgery (Aberdare)
	The Health Centre (Hirwaun)	
<b>North Merthyr Tydfil</b>	Kier Hardey Health Park (Dr J Davies)	Kier Hardy Health Park (Dr Jayadev)
	Kier Hardy Health Park (Dr NANNAPANENI)	Morlais Medical Practice
<b>North Rhondda</b>	Forest View Medical Centre	New Tynewydd Surgery
	The Maerdy Ferndale Mgp	The Surgery (Ton Pentre)
<b>North Taf Ely</b>	Eglwys Bach Surgery	Taf Vale Practice
	The Ashgrove Surgery	Ynysybwll Surgery

<b>South Cynon</b>	Cynon Vale Medical Practice (Cardiff Road)	Hillcrest Medical Centre (Mountain Ash)
	Rhos House Surgery	The Health Centre (Abercynon)
	The Penrhiwceiber Medical Centre	
<b>South Merthyr Tydfil</b>	Brookside Medical Centre	Pontcae Medical Practice
	The Surgery (Bedlinog)	Treharris Primary Health Care
	Troed Y Fan Medical Practice (Aberfan)	
<b>South Rhondda</b>	Cwm Gwrydd Medical Centre	Llwynypia Medical Practice
	Pont Newydd Medical Centre	Porth Farm Surgery
	St. Andrews Surgery	The Health Centre (Tonypanyd)
	The Surgery (Penygraig)	
<b>South Taf Ely</b>	Old School Surgery	Parc Canol Group Practice
	Talbot Green Group Practice	The Health Centre (Taffs Well)
<b>Hywel Dda Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>Amman /Gwendraeth</b>	Amman Tawe Partnership (Gwaun Cae Gurwen)	Brynteg Surgery
	Coalbrook Surgery	Meddygfa Minafon
	Meddygfa Penygroes	Meddygfa'r Tymbl
	The Surgery (Ammanford)	
<b>Llanelli</b>	Ashgrove Medical Centre	Avenue Villa Surgery
	Fairfield Surgery	Meddygfa Tywyn Bach
	The Llwynhendy Health Centre	The Surgery (Llangennech)
	Ty Elli Group Practice	
<b>North Ceredigion</b>	Borth Medical Practice	Church Surgery
	Llanilar Health Centre	Padarn Surgery
	Tanyfron Surgery	Tregaron Surgery
	Ystwyth Primary Care Centre	
<b>North Pembrokeshire</b>	Barlow House Surgery	Meddygfa Wdig
	Newport Surgery	St David's Surgery
	St Thomas Surgery (Haverfordwest)	The Health Centre (Fishguard)
	The Robert Street Practice	The Surgery (Solva)
	Winch Lane Surgery	
<b>South Ceredigion</b>	Ashleigh Surgery	Cardigan Health Centre
	Lampeter Medical Practice	Llwynfran Surgery
	Meddygfa Emlyn	Meddygfa Teifi Surgery
	The Surgery (New Quay)	
<b>South Pembrokeshire</b>	Argyle Medical Group	Narberth Surgery
	Neyland Health Centre	Saundersfoot Medical Centre
	The Surgery (Tenby)	
<b>Taf/Teifi/Tywi</b>	Coach & Horses Surgery	Meddygfa Teilo
	Furnace House Surgery	Meddygfa Taf

	St Peter's Surgery	Llanfair Surgery (Llandoverly)
	Meddygfa Tywi	Morfa Lane Surgery
<b>Powys Teaching Health Board</b>		
<b>Cluster</b>	<b>Practice(s)</b>	
<b>Mid Powys</b>	Llandrindod Wells Medical Practice	Presteigne Medical Practice
	The Surgery (Rhayader)	Wylcwm Street Surgery
<b>North Powys</b>	Arwystli Medical Practice	Canolfan Iechyd Glantwymyn
	Llanfair Caereinion Medical Practice	Montgomery Medical Practice
	Newtown Medical Practice	Welshpool Medical Practice
<b>South Powys</b>	Ty Henry Vaughan	War Memorial Health Centre
	Ystradgynlais Group Practice	



## Appendix C: References

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