

## **TOOL D3 Estimating the local cost of obesity**

| For:      | Commissioners in primary care trusts (PCTs)  |
|-----------|--|
| About:    | This tool provides estimates of the annual costs to the NHS of diseases related to overweight and obesity and obesity alone, broken down to PCT level. Estimated costs have been based on a disaggregation of the national estimates calculated by Foresight (for selected years 2007-2015). See Setting local goals in Section C. |
| Purpose:  | To give an understanding of the scale of the problem to the NHS in PCTs if current trends continue.  |
| Use:      | <ul> <li>Can be used for understanding the problem in your PCT – case for funding.</li> <li>Can be used for evaluation and monitoring purposes. The data can be used as a baseline and for monitoring interventions relating to reducing costs to NHS.</li> </ul>  |
| Resource: | Modelling future trends in obesity and the impact on health. Foresight tackling obesities: Future choices. 16 www.foresight.gov.uk   |

The estimated annual costs to the NHS of diseases related to overweight and obesity (BMI 25kgm<sup>2</sup> or more) and obesity alone (BMI 30kg/m<sup>2</sup> or more), by PCT, are provided below.

The costs have been estimated using the national estimates calculated by Foresight. A microsimulation model was used to forecast costs to the NHS of the consequences of overweight and obesity. No inflation costs, either of prices generally or healthcare costs in particular, were incorporated within the costs, so this allows for direct comparison to current prices. Future BMI-related costs were approximated by subtracting estimates of current NHS costs of obesity from projected costs derived from the model. Further information about the microsimulation model can be found at www.foresight.gov.uk

Estimated annual costs to NHS of diseases related to overweight and obesity (BMI 25kg/m² or more) and obesity alone (BMI 30kg/m² or more), by PCT

|                                      | Estimated annual costs to NHS of diseases related to overweight and obesity £ million |       |       | Estimated annual costs to NHS of diseases related to obesity  £ million |      |       |  |
|--------------------------------------|---|-------|-------|---|------|-------|--|
|                                      | 2007 2010 2015  |       | 2007  | 2010  | 2015 |       |  |
| Government Office for the North East |   |       |       |   |      |       |  |
| County Durham PCT                    | 156.7   | 162.7 | 173.9 | 81.3  | 88.1 | 101.1 |  |
| Darlington PCT                       | 27.6  | 28.6  | 30.6  | 14.3  | 15.5 | 17.8  |  |
| Gateshead PCT                        | 61.9  | 64.3  | 68.7  | 32.1  | 34.8 | 39.9  |  |
| Hartlepool PCT                       | 29.3  | 30.4  | 32.5  | 15.2  | 16.5 | 18.9  |  |
| Middlesbrough PCT                    | 45.8  | 47.5  | 50.8  | 23.7  | 25.7 | 29.5  |  |
| Newcastle PCT                        | 81.1  | 84.1  | 90    | 42.1  | 45.6 | 52.3  |  |
| North Tees PCT                       | 51.9  | 53.9  | 57.6  | 26.9  | 29.2 | 33.5  |  |
| North Tyneside PCT                   | 58.9  | 61.2  | 65.4  | 30.6  | 33.1 | 38    |  |
| Northumberland Care Trust            | 85.7  | 88.9  | 95.1  | 44.4  | 48.1 | 55.3  |  |

|   | Estimated annual costs to NHS of diseases related to overweight and obesity £ million |       |       | Estimated annual costs to NHS of diseases related to obesity  £ million |      |       |  |
|---|---|-------|-------|---|------|-------|--|
|   | 2007  | 2010  | 2015  | 2007  | 2010 | 2015  |  |
| Redcar and Cleveland PCT                    | 41  | 42.5  | 45.5  | 21.3  | 23   | 26.4  |  |
| South Tyneside PCT                          | 48.8  | 50.7  | 54.2  | 25.3  | 27.4 | 31.5  |  |
| Sunderland Teaching PCT                     | 88.4  | 91.7  | 98.1  | 45.9  | 49.7 | 57    |  |
| <b>Government Office for the North West</b> | t   |       |       |   |      |       |  |
| Ashton, Leigh and Wigan PCT                 | 90.8  | 94.3  | 100.8 | 47.1  | 51   | 58.6  |  |
| Blackburn with Darwen PCT                   | 46.4  | 48.1  | 51.4  | 24.1  | 26   | 29.9  |  |
| Blackpool PCT                               | 45.8  | 47.5  | 50.8  | 23.8  | 25.7 | 29.6  |  |
| Bolton PCT                                  | 78.3  | 81.3  | 86.9  | 40.6  | 44   | 50.5  |  |
| Bury PCT                                    | 50  | 51.9  | 55.5  | 26  | 28.1 | 32.3  |  |
| Central and Eastern Cheshire PCT            | 111.4   | 115.6 | 123.6 | 57.8  | 62.6 | 71.9  |  |
| Central Lancashire PCT                      | 119.2   | 123.7 | 132.3 | 61.8  | 67   | 76.9  |  |
| Cumbria PCT                                 | 136.8   | 141.9 | 151.8 | 71  | 76.9 | 88.2  |  |
| East Lancashire PCT                         | 110.1   | 114.2 | 122.2 | 57.1  | 61.9 | 71    |  |
| Halton and St Helens PCT                    | 95.3  | 98.9  | 105.8 | 49.5  | 53.6 | 61.5  |  |
| Heywood, Middleton and Rochdale PCT         | 63.4  | 65.8  | 70.4  | 32.9  | 35.6 | 40.9  |  |
| Knowsley PCT                                | 55  | 57.1  | 61    | 28.5  | 30.9 | 35.5  |  |
| Liverpool PCT                               | 163.6   | 169.8 | 181.5 | 84.9  | 91.9 | 105.5 |  |
| Manchester PCT                              | 166.8   | 173.1 | 185.1 | 86.6  | 93.7 | 107.6 |  |
| North Lancashire PCT                        | 90.5  | 93.9  | 100.4 | 47  | 50.9 | 58.4  |  |
| Oldham PCT                                  | 67.5  | 70.1  | 74.9  | 35  | 37.9 | 43.6  |  |
| Salford PCT                                 | 73.3  | 76.1  | 81.3  | 38  | 41.2 | 47.3  |  |
| Sefton PCT                                  | 82.1  | 85.2  | 91.1  | 42.6  | 46.1 | 52.9  |  |
| Stockport PCT                               | 74.4  | 77.2  | 82.6  | 38.6  | 41.8 | 48    |  |
| Tameside and Glossop PCT                    | 66.8  | 69.3  | 74.1  | 34.6  | 37.5 | 43.1  |  |
| Trafford PCT                                | 57.5  | 59.7  | 63.8  | 29.8  | 32.3 | 37.1  |  |
| Warrington PCT                              | 51.2  | 53.1  | 56.8  | 26.6  | 28.8 | 33    |  |
| Western Cheshire PCT                        | 65.6  | 68.1  | 72.8  | 34  | 36.8 | 42.3  |  |
| Wirral PCT                                  | 98.5  | 102.2 | 109.3 | 51.1  | 55.3 | 63.6  |  |
| Government Office for Yorkshire and T       | he Humbe  | r     |       |   |      |       |  |
| Barnsley PCT                                | 72.3  | 75.1  | 80.3  | 37.5  | 40.6 | 46.7  |  |
| Bradford and Airedale PCT                   | 142.6   | 148   | 158.3 | 74  | 80.1 | 92    |  |
| Calderdale PCT                              | 53  | 55    | 58.8  | 27.5  | 29.8 | 34.2  |  |
| Doncaster PCT                               | 88.4  | 91.7  | 98.1  | 45.9  | 49.7 | 57    |  |
| East Riding of Yorkshire PCT                | 76.4  | 79.3  | 84.8  | 39.7  | 43   | 49.3  |  |
| Hull PCT                                    | 78.8  | 81.8  | 87.4  | 40.9  | 44.3 | 50.8  |  |
| Kirklees PCT                                | 103.4   | 107.3 | 114.8 | 53.7  | 58.1 | 66.7  |  |

|                                       | Estimated annual costs to NHS of diseases related to overweight and obesity £ million |       |       | Estimated annual costs to NHS of diseases related to obesity £ million |       |       |
|---------------------------------------|---|-------|-------|--|-------|-------|
|                                       | 2007  | 2010  | 2015  | 2007   | 2010  | 2015  |
| Leeds PCT                             | 197.4   | 204.9 | 219.1 | 102.4  | 110.9 | 127.4 |
| North East Lincolnshire PCT           | 45.2  | 46.9  | 50.1  | 23.4   | 25.4  | 29.1  |
| North Lincolnshire PCT                | 42  | 43.6  | 46.6  | 21.8   | 23.6  | 27.1  |
| North Yorkshire and York PCT          | 186.6   | 193.6 | 207.1 | 96.8   | 104.8 | 120.4 |
| Rotherham PCT                         | 72.2  | 74.9  | 80.1  | 37.4   | 40.6  | 46.6  |
| Sheffield PCT                         | 148.7   | 154.3 | 165   | 77.1   | 83.6  | 95.9  |
| Wakefield District PCT                | 98.5  | 102.3 | 109.3 | 51.1   | 55.4  | 63.6  |
| Government Office for the East Midlar | nds   |       |       |  |       |       |
| Bassetlaw PCT                         | 29.6  | 30.8  | 32.9  | 15.4   | 16.7  | 19.1  |
| Derby City PCT                        | 73.4  | 76.2  | 81.5  | 38.1   | 41.3  | 47.4  |
| Derbyshire County PCT                 | 184.3   | 191.3 | 204.5 | 95.6   | 103.5 | 118.9 |
| Leicester City PCT                    | 86.6  | 89.9  | 96.1  | 45   | 48.7  | 55.9  |
| Leicestershire County and Rutland PCT | 147.6   | 153.2 | 163.8 | 76.6   | 83    | 95.3  |
| Lincolnshire PCT                      | 187.9   | 195   | 208.6 | 97.5   | 105.6 | 121.3 |
| Northamptonshire PCT                  | 167.6   | 173.9 | 186   | 86.9   | 94.2  | 108.1 |
| Nottingham City PCT                   | 85.1  | 88.3  | 94.4  | 44.1   | 47.8  | 54.9  |
| Nottinghamshire County PCT            | 166.8   | 173.1 | 185.1 | 86.5   | 93.7  | 107.6 |
| Government Office for the West Midla  | ınds  |       |       |  |       |       |
| Birmingham East and North PCT         | 122.5   | 127.2 | 136   | 63.6   | 68.9  | 79.1  |
| Coventry Teaching PCT                 | 96.1  | 99.7  | 106.6 | 49.8   | 54    | 62    |
| Dudley PCT                            | 80.9  | 84    | 89.8  | 42   | 45.5  | 52.2  |
| Heart of Birmingham Teaching PCT      | 92.9  | 96.5  | 103.1 | 48.2   | 52.2  | 60    |
| Herefordshire PCT                     | 46.3  | 48.1  | 51.4  | 24   | 26    | 29.9  |
| North Staffordshire PCT               | 54.7  | 56.8  | 60.7  | 28.4   | 30.7  | 35.3  |
| Sandwell PCT                          | 94.1  | 97.6  | 104.4 | 48.8   | 52.9  | 60.7  |
| Shropshire County PCT                 | 72.4  | 75.1  | 80.3  | 37.5   | 40.7  | 46.7  |
| Solihull Care Trust                   | 51.4  | 53.4  | 57.1  | 26.7   | 28.9  | 33.2  |
| South Birmingham PCT                  | 100.9   | 104.8 | 112   | 52.4   | 56.7  | 65.1  |
| South Staffordshire PCT               | 143.7   | 149.2 | 159.5 | 74.6   | 80.8  | 92.7  |
| Stoke on Trent PCT                    | 77.9  | 80.8  | 86.4  | 40.4   | 43.8  | 50.3  |
| Telford and Wrekin PCT                | 42.8  | 44.4  | 47.5  | 22.2   | 24.1  | 27.6  |
| Walsall Teaching PCT                  | 74.4  | 77.2  | 82.5  | 38.6   | 41.8  | 48    |
| Warwickshire PCT                      | 131.6   | 136.5 | 146   | 68.3   | 73.9  | 84.9  |
| Wolverhampton City PCT                | 73.8  | 76.6  | 81.9  | 38.3   | 41.5  | 47.6  |
| Worcestershire PCT                    | 136.6   | 141.8 | 151.6 | 70.9   | 76.8  | 88.1  |

|                                       | Estimated annual costs to NHS of diseases related to overweight and obesity £ million |       |       | Estimated annual costs to NHS of diseases related to obesity  £ million |      |       |  |
|---------------------------------------|---|-------|-------|---|------|-------|--|
|                                       | 2007  | 2010  | 2015  | 2007  | 2010 | 2015  |  |
| Government Office for the East of Eng | land  |       |       |   |      |       |  |
| Bedfordshire PCT                      | 98.8  | 102.6 | 109.7 | 51.3  | 55.5 | 63.8  |  |
| Cambridgeshire PCT                    | 138.3   | 143.5 | 153.5 | 71.7  | 77.7 | 89.2  |  |
| East and North Hertfordshire PCT      | 134.4   | 139.4 | 149.1 | 69.7  | 75.5 | 86.7  |  |
| Great Yarmouth and Waveney PCT        | 65.4  | 67.9  | 72.6  | 33.9  | 36.8 | 42.2  |  |
| Luton PCT                             | 50.7  | 52.6  | 56.2  | 26.3  | 28.5 | 32.7  |  |
| Mid Essex PCT                         | 82  | 85.1  | 91    | 42.5  | 46.1 | 52.9  |  |
| Norfolk PCT                           | 188.7   | 195.8 | 209.4 | 97.9  | 106  | 121.7 |  |
| North East Essex PCT                  | 86.3  | 89.6  | 95.8  | 44.8  | 48.5 | 55.7  |  |
| Peterborough PCT                      | 42.7  | 44.4  | 47.4  | 22.2  | 24   | 27.6  |  |
| South East Essex PCT                  | 88  | 91.3  | 97.6  | 45.6  | 49.4 | 56.8  |  |
| South West Essex PCT                  | 106.3   | 110.3 | 117.9 | 55.1  | 59.7 | 68.6  |  |
| Suffolk PCT                           | 146.4   | 152   | 162.5 | 76  | 82.3 | 94.5  |  |
| West Essex PCT                        | 66.7  | 69.2  | 74    | 34.6  | 37.5 | 43    |  |
| West Hertfordshire PCT                | 130.8   | 135.8 | 145.2 | 67.9  | 73.5 | 84.4  |  |
| Government Office for London          |   |       |       |   |      |       |  |
| Barking and Dagenham PCT              | 54.6  | 56.7  | 60.6  | 28.3  | 30.7 | 35.2  |  |
| Barnet PCT                            | 85.1  | 88.3  | 94.4  | 44.1  | 47.8 | 54.9  |  |
| Bexley Care Trust                     | 55.5  | 57.6  | 61.6  | 28.8  | 31.2 | 35.8  |  |
| Brent Teaching PCT                    | 83  | 86.2  | 92.2  | 43.1  | 46.7 | 53.6  |  |
| Bromley PCT                           | 77.2  | 80.1  | 85.7  | 40.1  | 43.4 | 49.8  |  |
| Camden PCT                            | 74.6  | 77.4  | 82.8  | 38.7  | 41.9 | 48.1  |  |
| City and Hackney Teaching PCT         | 85.3  | 88.5  | 94.6  | 44.2  | 47.9 | 55    |  |
| Croydon PCT                           | 88.9  | 92.2  | 98.6  | 46.1  | 49.9 | 57.3  |  |
| Ealing PCT                            | 89  | 92.4  | 98.8  | 46.2  | 50   | 57.4  |  |
| Enfield PCT                           | 75.7  | 78.6  | 84.1  | 39.3  | 42.6 | 48.9  |  |
| Greenwich Teaching PCT                | 73  | 75.8  | 81    | 37.9  | 41   | 47.1  |  |
| Hammersmith and Fulham PCT            | 53.4  | 55.4  | 59.2  | 27.7  | 30   | 34.4  |  |
| Haringey Teaching PCT                 | 73.7  | 76.5  | 81.8  | 38.2  | 41.4 | 47.6  |  |
| Harrow PCT                            | 50.9  | 52.8  | 56.4  | 26.4  | 28.6 | 32.8  |  |
| Havering PCT                          | 65.2  | 67.7  | 72.4  | 33.9  | 36.7 | 42.1  |  |
| Hillingdon PCT                        | 63.6  | 66    | 70.6  | 33  | 35.8 | 41.1  |  |
| Hounslow PCT                          | 60.8  | 63.1  | 67.5  | 31.6  | 34.2 | 39.3  |  |
| Islington PCT                         | 66.3  | 68.8  | 73.6  | 34.4  | 37.3 | 42.8  |  |
| Kensington and Chelsea PCT            | 56  | 58.1  | 62.1  | 29.1  | 31.5 | 36.1  |  |
| Kingston PCT                          | 39.7  | 41.1  | 44    | 20.6  | 22.3 | 25.6  |  |
| Lambeth PCT                           | 88.6  | 91.9  | 98.3  | 46  | 49.8 | 57.1  |  |

|   | Estimated annual costs to NHS of diseases related to overweight and obesity £ million |       |       | Estimated annual costs to NHS of diseases related to obesity  £ million |       |       |
|---|---|-------|-------|---|-------|-------|
|   | 2007  | 2010  | 2015  | 2007  | 2010  | 2015  |
| Lewisham PCT                                | 76.2  | 79.1  | 84.5  | 39.5  | 42.8  | 49.1  |
| Newham PCT                                  | 92.6  | 96.1  | 102.8 | 48.1  | 52.1  | 59.8  |
| Redbridge PCT                               | 62.3  | 64.7  | 69.1  | 32.3  | 35    | 40.2  |
| Richmond and Twickenham PCT                 | 42.4  | 44    | 47.1  | 22  | 23.8  | 27.4  |
| Southwark PCT                               | 83  | 86.1  | 92.1  | 43.1  | 46.6  | 53.5  |
| Sutton and Merton PCT                       | 93.8  | 97.4  | 104.1 | 48.7  | 52.7  | 60.5  |
| Tower Hamlets PCT                           | 80.9  | 84    | 89.8  | 42  | 45.5  | 52.2  |
| Waltham Forest PCT                          | 68  | 70.6  | 75.5  | 35.3  | 38.2  | 43.9  |
| Wandsworth PCT                              | 74.1  | 76.9  | 82.2  | 38.4  | 41.6  | 47.8  |
| Westminster PCT                             | 70.2  | 72.9  | 77.9  | 36.4  | 39.4  | 45.3  |
| <b>Government Office for the South East</b> |   |       |       |   |       |       |
| Brighton and Hove City PCT                  | 75.3  | 78.1  | 83.5  | 39.1  | 42.3  | 48.6  |
| East Sussex Downs and Weald PCT             | 88.2  | 91.5  | 97.9  | 45.8  | 49.6  | 56.9  |
| Eastern and Coastal Kent PCT                | 201.8   | 209.5 | 224   | 104.7   | 113.4 | 130.2 |
| Hastings and Rother PCT                     | 52.2  | 54.2  | 58    | 27.1  | 29.4  | 33.7  |
| Medway PCT                                  | 69.7  | 72.3  | 77.4  | 36.2  | 39.2  | 45    |
| Surrey PCT                                  | 251.3   | 260.8 | 278.8 | 130.4   | 141.2 | 162.1 |
| West Kent PCT                               | 160   | 166.1 | 177.6 | 83  | 89.9  | 103.3 |
| West Sussex PCT                             | 199.5   | 207   | 221.4 | 103.5   | 112.1 | 128.7 |
| Berkshire East PCT                          | 91  | 94.5  | 101   | 47.2  | 51.2  | 58.7  |
| Berkshire West PCT                          | 103.5   | 107.4 | 114.8 | 53.7  | 58.1  | 66.7  |
| Buckinghamshire PCT                         | 113.6   | 117.9 | 126.1 | 59  | 63.8  | 73.3  |
| Hampshire PCT                               | 300.8   | 312.2 | 333.8 | 156.1   | 169   | 194.1 |
| Isle of Wight NHS PCT                       | 41.9  | 43.5  | 46.5  | 21.8  | 23.6  | 27.1  |
| Milton Keynes PCT                           | 56.9  | 59    | 63.1  | 29.5  | 31.9  | 36.7  |
| Oxfordshire PCT                             | 143.4   | 148.8 | 159.1 | 74.4  | 80.6  | 92.5  |
| Portsmouth City Teaching PCT                | 50.1  | 52    | 55.6  | 26  | 28.2  | 32.3  |
| Southampton City PCT                        | 65.2  | 67.6  | 72.3  | 33.8  | 36.6  | 42.1  |
| <b>Government Office for the South West</b> |   |       |       |   |       |       |
| Bath and North East Somerset PCT            | 44.1  | 45.8  | 49    | 22.9  | 24.8  | 28.5  |
| Bournemouth and Poole PCT                   | 89.5  | 92.8  | 99.3  | 46.4  | 50.3  | 57.7  |
| Bristol PCT                                 | 111.6   | 115.8 | 123.9 | 57.9  | 62.7  | 72    |
| Cornwall and Isles of Scilly PCT            | 145.1   | 150.6 | 161   | 75.3  | 81.5  | 93.6  |
| Devon PCT                                   | 190.5   | 197.7 | 211.4 | 98.8  | 107   | 122.9 |
| Dorset PCT                                  | 102.4   | 106.2 | 113.6 | 53.1  | 57.5  | 66    |
| Gloucestershire PCT                         | 143.7   | 149.1 | 159.5 | 74.6  | 80.7  | 92.7  |
| North Somerset PCT                          | 51.4  | 53.4  | 57.1  | 26.7  | 28.9  | 33.2  |

|  | Estimated annual costs to NHS of diseases related to overweight and obesity £ million  2007 2010 2015 |        |        | Estimated annual costs to NHS of diseases related to obesity  £ million |       |       |  |
|--|---|--------|--------|---|-------|-------|--|
|  |   |        |        | 2007  | 2010  | 2015  |  |
| Plymouth Teaching PCT                              | 68.5  | 71     | 76     | 35.5  | 38.5  | 44.2  |  |
| Somerset PCT                                       | 133.8   | 138.8  | 148.4  | 69.4  | 75.2  | 86.3  |  |
| South Gloucestershire PCT                          | 54.8  | 56.9   | 60.8   | 28.4  | 30.8  | 35.3  |  |
| Swindon PCT  | 48  | 49.8   | 53.3   | 24.9  | 27    | 31    |  |
| Torbay Care Trust                                  | 42.4  | 44     | 47.1   | 22  | 23.8  | 27.4  |  |
| Wiltshire PCT                                      | 106.6   | 110.6  | 118.3  | 55.3  | 59.9  | 68.8  |  |
|  | Elevated BMI (£ million)  |        |        | n) Obesity (£ million   |       |       |  |
| FORESIGHT estimate of national annual costs to NHS | 2007  | 2010   | 2015   | 2007  | 2010  | 2015  |  |
|  | 13,891  | 14,416 | 15,415 | 7207  | 7,805 | 8,962 |  |

## Notes

Costs are calculated at 2004 prices.

It is assumed the BMI distribution for England changes in line with current trends.

## Note:

NICE has produced a report which attempts to estimate the cost of implementing the NICE guidelines on obesity. 142 This report estimates the cost of: treatment of obese/overweight children with co-morbidities (referral to a specialist, drug treatment for some children); bariatric surgery for very obese adults; and staff training in prevention and management of obesity. To view the report, visit www.nice.org.uk