



Oral health survey of five year old children

Key findings for Lancashire-14

Farha Abbas, Public Health Analyst

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For further information on the work of the Business Intelligence team, please contact us at:

Business Intelligence

Lancashire County Council

2nd floor Christ Church Precinct

Preston

PR1 0LD

E: insight@lancashire.gov.uk

W: www.lancashire.gov.uk/lancashire-insight

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1. Overview

Since 1985, standardised and coordinated surveys of child dental health have been conducted across the United Kingdom.

The summarised results in this report are from the National Dental Epidemiology Programme for England, oral health survey of five-year-old children, 2015.¹

As part of Public Health England's Dental Public Health Epidemiology Programme, standard examinations of a random sample of five-year-old children were undertaken in the academic year 2014 to 2015. This was the third national dental survey of this age group to take place under positive consent for participation.² This report and associated [excel file](#) present the results of standardised dental examinations of five-year-old children who attended mainstream, state-funded schools across England during the 2014/15 academic year.

1.1 Prevalence of dental decay at age five (% d₃mft > 0)

Current picture and comparison with England and North West

As part of the third National Dental Epidemiology Programme for England, the oral health survey of five-year-old children¹ published on 10 May 2016 by Public Health England (PHE) reveals that:

- In the Lancashire-12 area **31.9%** of five year olds suffered from tooth decay compared with **33.4%** in the North West and **24.7%** in England (table 1).
- In Blackburn with Darwen 55.7% and in Blackpool 42.5% of five year olds suffered from tooth decay.

Rank in the North West

For the proportion of five year olds suffering from tooth decay, amongst the 23 North West upper tier local authorities:

- The Lancashire-12 area ranked 12th (across North West the range was 20.3% in Cheshire West and Chester to 55.7% in Blackburn with Darwen)
- Blackburn with Darwen ranked the highest and Blackpool ranked the 5th highest.

Internal differences

- Across the Lancashire-14 area, the proportion of five year olds suffering from tooth decay ranged from 15.6% in Chorley to 55.7% in Blackburn with Darwen (2014/15).

¹These survey data were collected during the 2014-15 school year but are referred to here as 2015.

² Department of Health guidance in 2007 required written parental consent be gained for children to be examined in the surveys. This replaced passive consent which had been used for the previous 20 years

- Across the 8 Clinical Commissioning Groups (CCGs) covering the Lancashire-14 area, the proportion of five year olds suffering from tooth decay ranged from 20.5% in NHS Chorley & South Ribble CCG to 55.7% in NHS Blackburn with Darwen CCG (table 1).

Trend

Between the academic periods 2011/12 to 2014/15:

- The Lancashire-12 area experienced a 9% decrease in the proportion of five year olds suffering from tooth decay, compared to a drop of 11% in England.
- Blackburn with Darwen and Blackpool experienced an increase in the proportion of five year olds suffering from tooth decay.

Figure 1 presents the change (2008 to 2015) in the percentage of five year olds with decay experience.

The pattern of any dental health improvement among this age group shows the impact parents and carers can have in establishing good dental care habits from an early age.

1.2 Severity of dental decay at age five (Mean d_3mft)

Current picture and comparison with England and North West

- In the Lancashire-12 area, the average number of **teeth affected by decay** (decayed, missing or filled teeth- d_3mft -in the whole five year old sample (including the 68% who were decay free)) was **1.2** compared with 1.3 in North West and 0.8 in England (table 1).
- In Blackburn with Darwen the average number of **teeth affected by decay** (decayed, missing or filled teeth- d_3mft -in the whole five year old sample (including the 44% who were decay free)) was **2.4**.
- In Blackpool the average number of **teeth affected by decay** (decayed, missing or filled teeth- d_3mft -in the whole five year old sample (including the 57.5% who were decay free)) was **1.8**.

Looking at the severity of decay among only those children with decay experience, separately from children with no obvious decay, allows us to understand more about the extent of disease in these children.

- Among the 31.9% of Lancashire-12 area's five year olds with some experience of obvious decay, the **average number of teeth that were decayed, missing or filled** was **3.7** compared with 3.8 in North West and 3.4 in England.
- In Blackburn with Darwen and Blackpool the average number of teeth that were decayed, missing or filled was **4.4** and **4.3**, respectively.

Rank in the North West

For the average number of teeth affected by decay, across the 23 North West upper tier local authorities:

- The Lancashire-12 area ranked 9th highest (equal with Knowsley, Tameside, Cumbria and Wirral) (across North West the range was 0.6-2.5).
- Blackburn with Darwen ranked 3rd highest in the North West and Blackpool ranked the 4th highest in North West.

Internal differences

- Across the Lancashire-14 area, the average number of teeth affected by decay (decayed, missing or filled teeth (d₃mft) ranged from 0.4 in Chorley to 2.4 in Blackburn with Darwen.
- In the Lancashire-12 area, the average number of teeth affected by decay (decayed, missing or filled teeth (d₃mft) ranged from 0.4 in Chorley to 1.8 in Burnley and Preston.

Trend

Between the academic periods 2011/12 to 2014/15:

- The Lancashire-12 area, in line with England, experienced a slight reduction in the average number of teeth affected by decay.
- Blackburn with Darwen experienced an increase in the average number of teeth affected by decay and Blackpool remained approximately the same with some signs of improvement.

Figure 2 presents the change over time in the average number of dentinally decayed, missing and filled teeth (d₃mft) among five-year-old children.

1.3 The number of currently decayed teeth at age five (Mean d₃t)

Current picture and comparison with England and North West

The major component of the d₃mft index in this age group is obvious, untreated dentinal decay (d₃t). On average at age five, the number of teeth decayed into dentine was:

- 1.0 in the Lancashire-12 area, which is same as the North West value and above the England value of 0.7 (table 1).
- 2.1 in Blackburn with Darwen.
- 1.4 in Blackpool.

Rank in the North West

For untreated dentinal decay, amongst the 23 North West upper tier local authorities:

- The Lancashire-12 area ranked 8th highest (equal with Cumbria and Tameside); across North West the range was 0.5-2.2.
- Blackburn ranked the 2nd highest and Blackpool ranked the 5th highest in the North West.

Internal differences

- Across the Lancashire-14 area, the average number of currently decayed teeth at age five ranged from 0.5 in Chorley and Ribble Valley to 2.1 in Blackburn with Darwen.

Trend

- During the period 2011/12 to 2014/15, Lancashire-12 area, in line with England, experienced a very slight reduction in the number of currently decayed teeth at age five.
- During the period 2011/12 to 2014/15, Blackburn with Darwen and Blackpool experienced an increase the number of currently decayed teeth at age five.

1.4 The care index

The care index gives an indication of the restorative activity of dentists in each area. *It is the percentage of teeth with decay experience that have been treated by filling (ft/d₃mft).* Opinions differ regarding the appropriateness and benefit of filling decayed primary teeth and there is a lack of definitive evidence-based guidance on this.ⁱⁱ

Current picture and comparison with England and North West

- Lancashire-14 area's care index value was significantly below the England average (table 1). The proportion of decayed teeth that were filled was 12.0% across England as a whole.
- In the Lancashire-12 area's five year olds, the proportion of decayed teeth that are filled was 7.6% compared with 7.8% in North West.
- In Blackburn with Darwen the proportion of decayed teeth that are filled was 6.1% and in Blackpool 4.3%.

Rank in the North West

For the care index, amongst the 23 North West upper tier local authorities, the Lancashire-12 area ranked 11th with 1st being the lowest and 23rd being the highest (across NW the range was 2.4-20.9%).

Blackburn ranked 9th and Blackpool ranked 5th lowest amongst the North West upper tier local authorities.

Internal differences

- Across the Lancashire-14 districts, the proportion of decayed teeth that were filled varied from 1.6% in Wyre to 16.3% in West Lancashire.

Trend

- Lancashire-12 area's 2014/15 care index value was 7.6% (compared with 10.3% in 2011/12), thereby, in line with North West, indicating signs of decline in the care index. However, it should be noted that Lancashire-12 area's 2011/12 care index value was based on data for Burnley, Fylde, Hyndburn, Pendle, Preston, Ribble Valley, Rossendale & Wyre only.
- England's 2014/15 care index was 12.0%, indicating signs of improvement compared to the 2011/12 care index of 11.2%.
- During the period 2011/12 to 2014/15 Blackburn with Darwen and Blackpool also experienced a reduction in the care index.

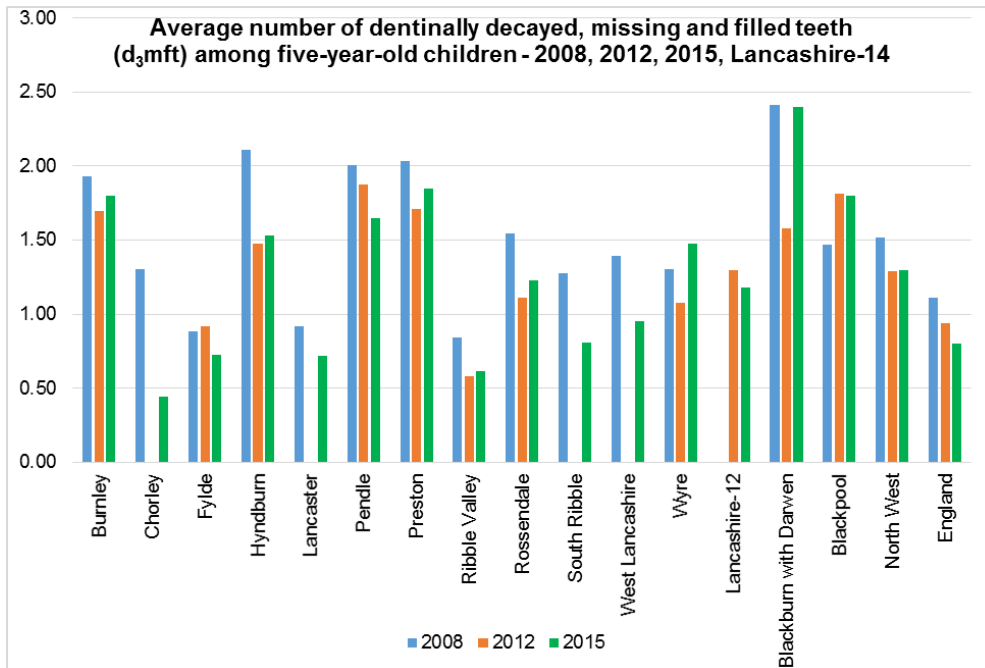
Table 1: Findings of oral health survey of five-year-old children by district and CCG 2014/15

| Area | 5-year-old population (mid 2014) | Examined | % of sample examined (* unavailable) | Mean d ₃ mft | Mean d ₃ t | % d ₃ mft = 0 | % d ₃ mft > 0 | Mean d ₃ mft (% d ₃ mft > 0) | Care Index % |
|----------------------------------|----------------------------------|----------------|--------------------------------------|-------------------------|-----------------------|--------------------------|--------------------------|--|--------------|
| Burnley | 1,173 | 243 | 68.34 | 1.8 | 1.4 | 57.4 | 42.6 | 4.2 | 4.7 |
| Chorley | 1,304 | 188 | 77.10 | 0.4 | 0.5 | 83.7 | 15.6 | 3.0 | 8.6 |
| Fylde | 752 | 186 | 60.52 | 0.7 | 0.6 | 70.1 | 29.9 | 2.4 | 7.3 |
| Hyndburn | 1,080 | 211 | 65.97 | 1.5 | 1.5 | 56.5 | 43.5 | 3.5 | 5.1 |
| Lancaster | 1,420 | 365 | * | 0.7 | 0.6 | 79.4 | 20.6 | 3.5 | 6.2 |
| Pendle | 1,306 | 228 | 64.79 | 1.7 | 1.3 | 56.7 | 43.3 | 3.8 | 12.2 |
| Preston | 1,891 | 250 | 70.29 | 1.8 | 1.4 | 56.5 | 43.5 | 4.3 | 6.6 |
| Ribble Valley | 645 | 202 | 76.92 | 0.6 | 0.5 | 80.1 | 19.9 | 3.1 | 12.1 |
| Rosendale | 883 | 205 | 68.67 | 1.2 | 1.0 | 66.7 | 33.3 | 3.7 | 9.5 |
| South Ribble | 1,349 | 250 | 83.28 | 0.8 | 0.6 | 75.6 | 24.4 | 3.3 | 8.0 |
| West Lancashire | 1,203 | 180 | 55.03 | 1.0 | 0.8 | 70.5 | 28.8 | 3.5 | 16.3 |
| Wyre | 1,029 | 158 | 53.25 | 1.5 | 1.2 | 65.6 | 34.4 | 4.3 | 1.6 |
| Lancashire-12 | 14,035 | 2,666 | 77.87 | 1.2 | 1.0 | 68.0 | 31.9 | 3.7 | 7.6 |
| Blackburn with Darwen | 2,227 | 254 | 70.03 | 2.4 | 2.1 | 43.9 | 55.7 | 4.4 | 6.1 |
| Blackpool | 1,648 | 179 | 60.27 | 1.8 | 1.4 | 57.5 | 42.5 | 4.3 | 4.3 |
| England | 673,956 | 111,500 | 63.1 | 0.8 | 0.7 | 75.2 | 24.7 | 3.4 | 12.0 |
| CCG | 5-year-old population (mid 2014) | Examined | % of sample examined (* unavailable) | Mean d ₃ mft | Mean d ₃ t | % d ₃ mft = 0 | % d ₃ mft > 0 | Mean d ₃ mft (% d ₃ mft > 0) | Care Index % |
| NHS Chorley and South Ribble CCG | 2,101 | 313 | | 0.7 | 0.6 | 79.1 | 20.5 | 3.4 | 6.8 |
| NHS East Lancashire CCG | 4,944 | 1,081 | | 1.4 | 1.2 | 62.1 | 37.9 | 3.8 | 8.0 |
| NHS Fylde & Wyre CCG | 1,608 | 321 | | 1.1 | 0.9 | 67.2 | 32.8 | 3.5 | 3.6 |
| NHS Greater Preston CCG | 2,586 | 383 | | 1.5 | 1.2 | 63.1 | 36.9 | 4.1 | 7.0 |
| NHS Lancashire North CCG | 1,593 | 388 | | 0.7 | 0.6 | 79.3 | 20.7 | 3.4 | 6.4 |
| NHS West Lancashire CCG | 1,203 | 180 | | 1.0 | 0.8 | 70.5 | 28.8 | 3.5 | 16.3 |

Source: [http://www.nwph.net/dentalhealth/survey-results%205\(14_15\).aspx](http://www.nwph.net/dentalhealth/survey-results%205(14_15).aspx)

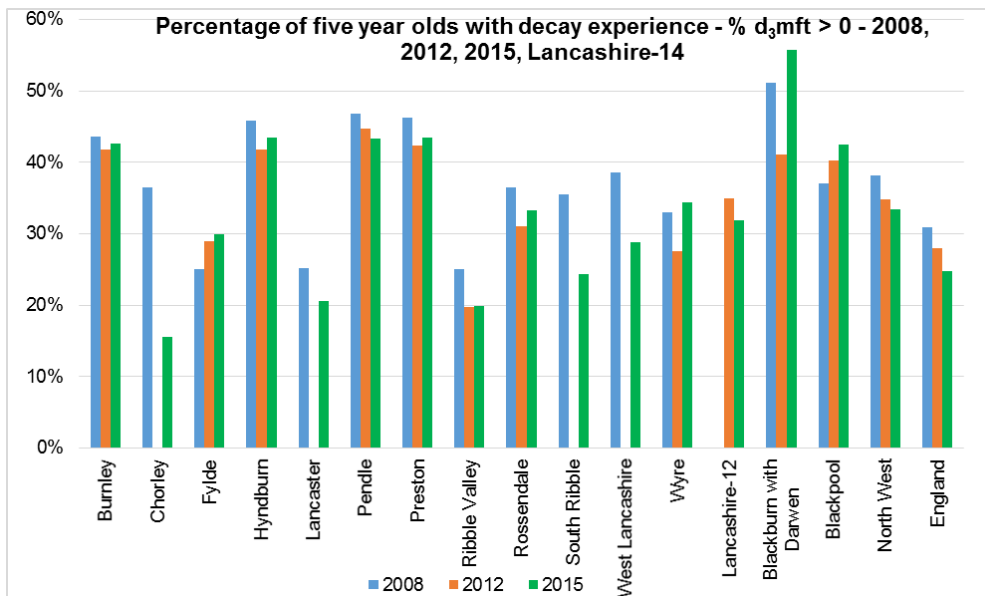
Worse than England
 Similar to England
 Better than England

Figure 1: Trend in percentage of five year olds with decay experience - % d₃mft > 0- 2008, 2012, 2015, Lancashire-14



Source: [http://www.nwph.net/dentalhealth/survey-results%205\(14_15\).aspx](http://www.nwph.net/dentalhealth/survey-results%205(14_15).aspx)

Figure 2: Trend in average number of dentally decayed, missing and filled teeth (d₃mft) among five-year-old children, 2008, 2012, 2015, Lancashire-14



Source: [http://www.nwph.net/dentalhealth/survey-results%205\(14_15\).aspx](http://www.nwph.net/dentalhealth/survey-results%205(14_15).aspx)

2. Data and other downloads

Please see data (XLS 95 KB) for further details and trend.

3. References

[http://www.nwph.net/dentalhealth/survey-results%205\(14_15\).aspx](http://www.nwph.net/dentalhealth/survey-results%205(14_15).aspx)