



# Liverpool

Published April 2021

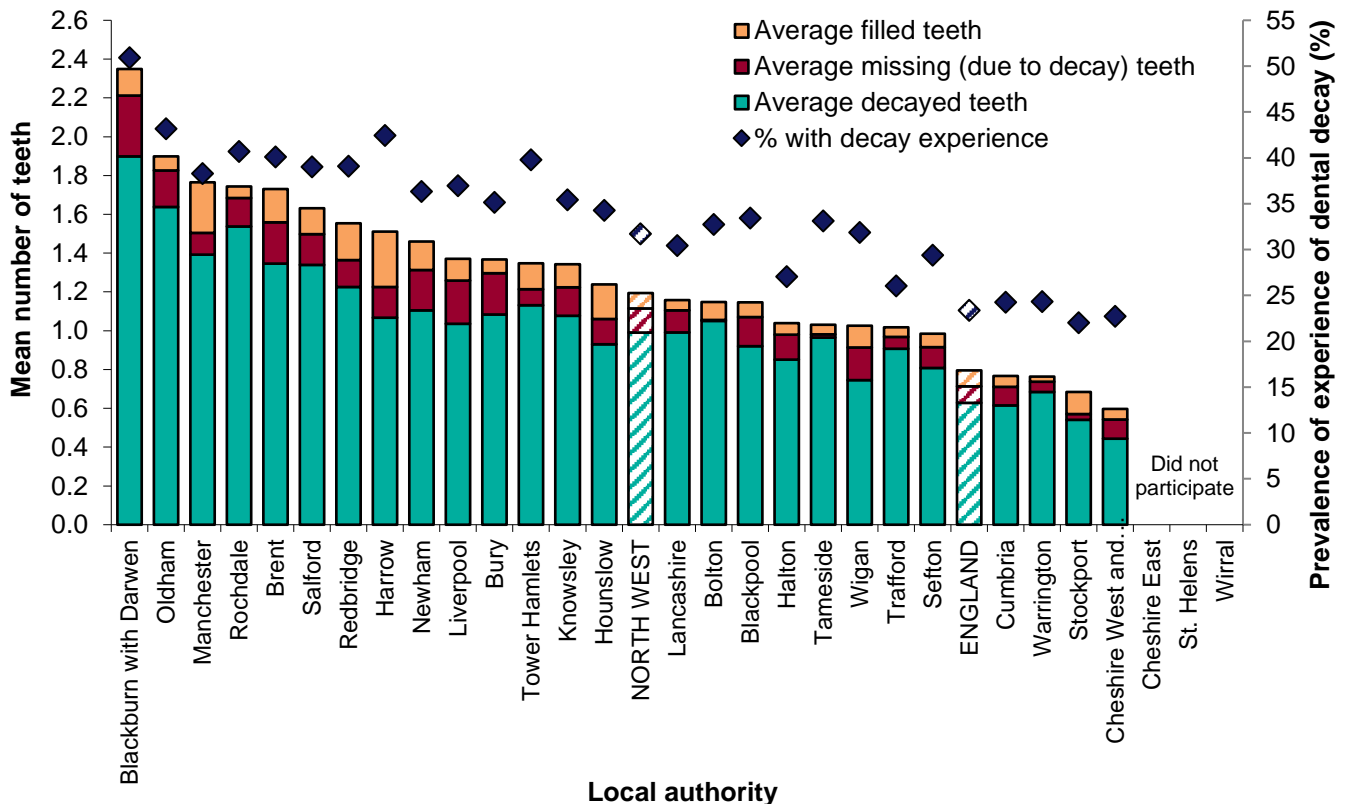
## Oral health of 5-year-old children

This profile describes the oral health of 5-year-olds living in Liverpool. It uses data from the National Dental Epidemiology Programme 2019 survey of 5-year-old children<sup>1</sup>.

The profile is designed to help local government and health services improve the oral health and wellbeing of children and tackle health inequalities.

In Liverpool 227 5-year-olds (approximately 60.1% of those sampled) were examined at school by trained and calibrated examiners using the national standard method<sup>2</sup>.

**Figure 1:** Prevalence of experience of dental decay and mean number of teeth with experience of dental decay in 5-year-olds in Liverpool, other local authorities in the North West and England.



**Table 1:** Experience of dental decay in 5-year-olds in Liverpool, other local authorities in the North West and England.

Local authority	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay in all examined children n (95% confidence intervals)	Mean number of teeth with experience of dental decay in children with any decay experience n (95% confidence intervals)
Blackburn with Darwen	50.9	2.3 (1.87 - 2.82)	4.6 (3.94 - 5.29)
Oldham	43.2	1.9 (1.45 - 2.34)	4.4 (3.63 - 5.16)
Rochdale	40.7	1.7 (1.30 - 2.19)	4.3 (3.64 - 4.93)
Salford	39.0	1.6 (1.25 - 2.01)	4.2 (3.48 - 4.88)
Manchester	38.3	1.8 (1.43 - 2.10)	4.6 (3.98 - 5.24)
Liverpool	37.0	1.4 (1.05 - 1.69)	3.7 (3.09 - 4.33)
Knowsley	35.4	1.3 (0.93 - 1.75)	3.8 (2.94 - 4.63)
Bury	35.2	1.4 (1.07 - 1.66)	3.9 (3.35 - 4.44)
Blackpool	33.4	1.1 (0.74 - 1.56)	3.4 (2.50 - 4.35)
Tameside	33.1	1.0 (0.75 - 1.31)	3.1 (2.52 - 3.71)
Bolton	32.7	1.1 (0.84 - 1.45)	3.5 (2.83 - 4.18)
Wigan	31.9	1.0 (0.79 - 1.26)	3.2 (2.70 - 3.74)
<b>NORTH WEST</b>	<b>31.7</b>	<b>1.2</b> <b>(1.14 - 1.25)</b>	<b>3.8</b> <b>(3.65 - 3.89)</b>
Lancashire	30.4	1.2 (1.06 - 1.25)	3.8 (3.59 - 4.02)
Sefton	29.4	1.0 (0.67 - 1.30)	3.4 (2.61 - 4.10)
Halton	27.0	1.0 (0.72 - 1.36)	3.8 (3.01 - 4.67)

Local authority	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay in all examined children n (95% confidence intervals)	Mean number of teeth with experience of dental decay in children with any decay experience n (95% confidence intervals)
Trafford	26.0	1.0 (0.72 - 1.32)	3.9 (3.05 - 4.77)
Warrington	24.3	0.8 (0.52 - 1.01)	3.1 (2.43 - 3.85)
Cumbria	24.2	0.8 (0.67 - 0.86)	3.2 (2.89 - 3.43)
ENGLAND	23.4	0.8 (0.78 - 0.81)	3.4 (3.36 - 3.44)
Cheshire West and Chester	22.7	0.6 (0.41 - 0.78)	2.6 (2.07 - 3.19)
Stockport	22.0	0.7 (0.43 - 0.94)	3.1 (2.21 - 3.99)
Cheshire East	Did Not Participate		
St. Helens	Did Not Participate		
Wirral	Did Not Participate		

**Table 2.** Measures of oral health among 5-year-olds in Liverpool, it's statistical neighbours,<sup>i</sup> the North West and England.

	Liverpool	Statistical neighbour within North West: Salford	Statistical neighbour comparator 1: Salford	North West	England
Prevalence of experience of dental decay	37.0%	39.0%	39.0%	31.7%	23.4%
Mean number of teeth with experience of dental decay	1.4	1.6	1.6	1.2	0.8
Mean number of teeth with experience of decay in those with experience of dental decay	3.7	4.2	4.2	3.8	3.4
Mean number of decayed teeth in those with experience of dental decay	2.8	3.4	3.4	3.0	2.7
Proportion with active decay	31.9%	34.8%	34.8%	29.0%	20.4%
Proportion with experience of tooth extraction <sup>ii</sup>	4.3%	2.3%	2.3%	2.9%	2.2%
Proportion with dental abscess	0.0%	0.9%	0.9%	1.2%	1.0%
Proportion with teeth decayed into pulp	6.8%	5.2%	5.2%	5.5%	3.3%
Proportion with decay affecting incisors <sup>iii</sup>	8.8%	10.2%	10.2%	7.7%	5.2%
Proportion with high levels of plaque present on upper front teeth <sup>iv</sup>	1.3%	13.2%	13.2%	2.2%	1.2%

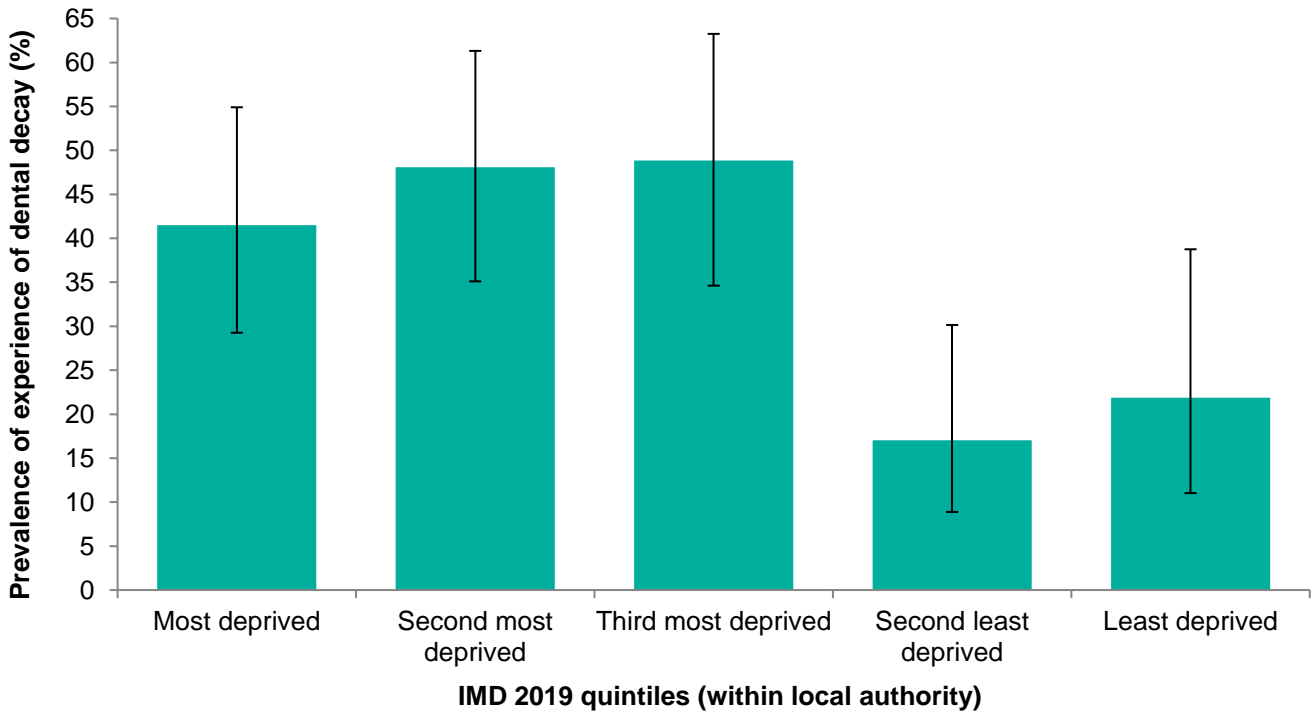
<sup>i</sup> generated by the children's services statistical neighbour benchmarking tool, the neighbour within the North West has "Very Close" comparator characteristics and the national neighbour 1 has "Very Close" comparator characteristics<sup>3</sup>.

<sup>ii</sup> experience of extraction of one or more teeth on one or more occasions.

<sup>iii</sup> dental decay involving one or more surfaces of upper anterior teeth.

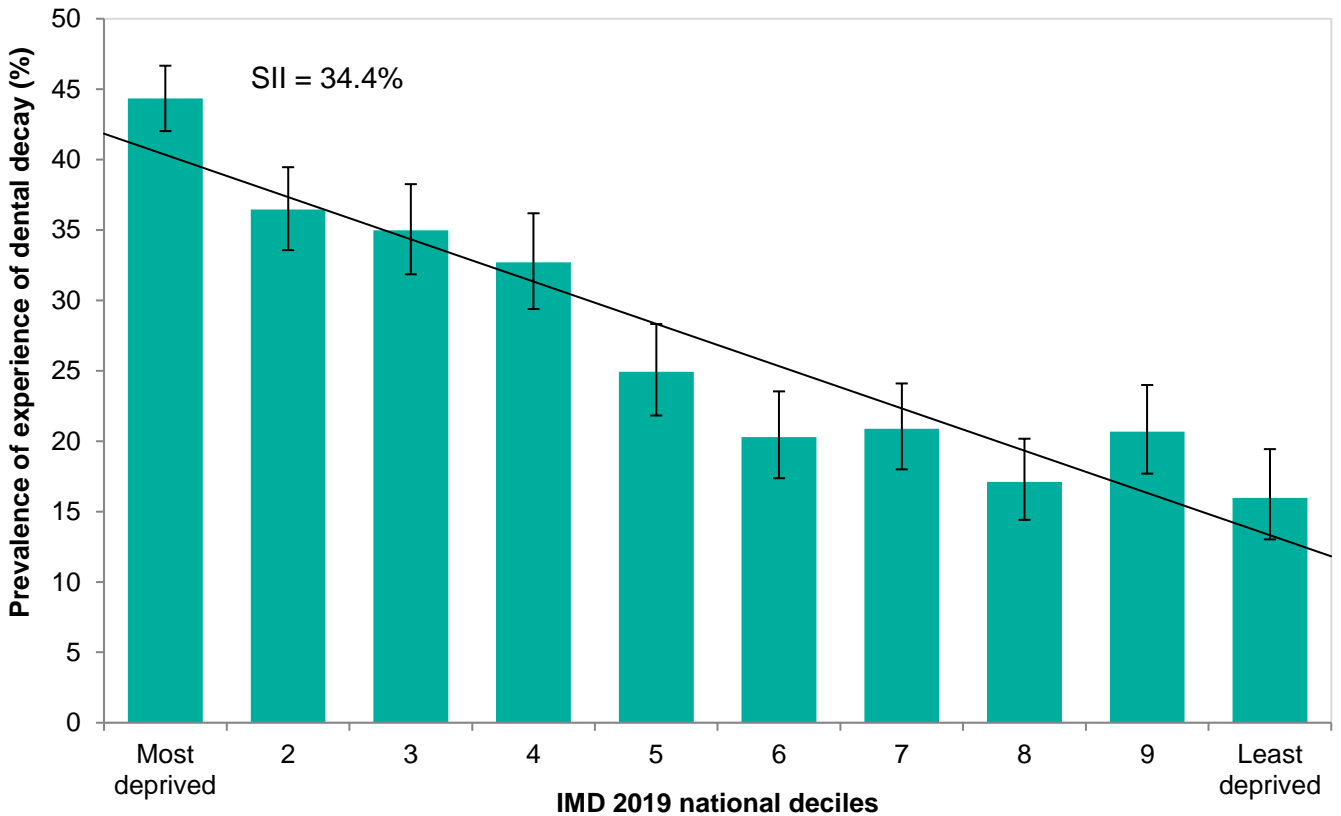
<sup>iv</sup> indicative of poor tooth brushing habits.

**Figure 2:** Prevalence of experience of dental decay in 5-year-olds in Liverpool, by local authority Index of Multiple Deprivation (IMD) 2019 quintiles.



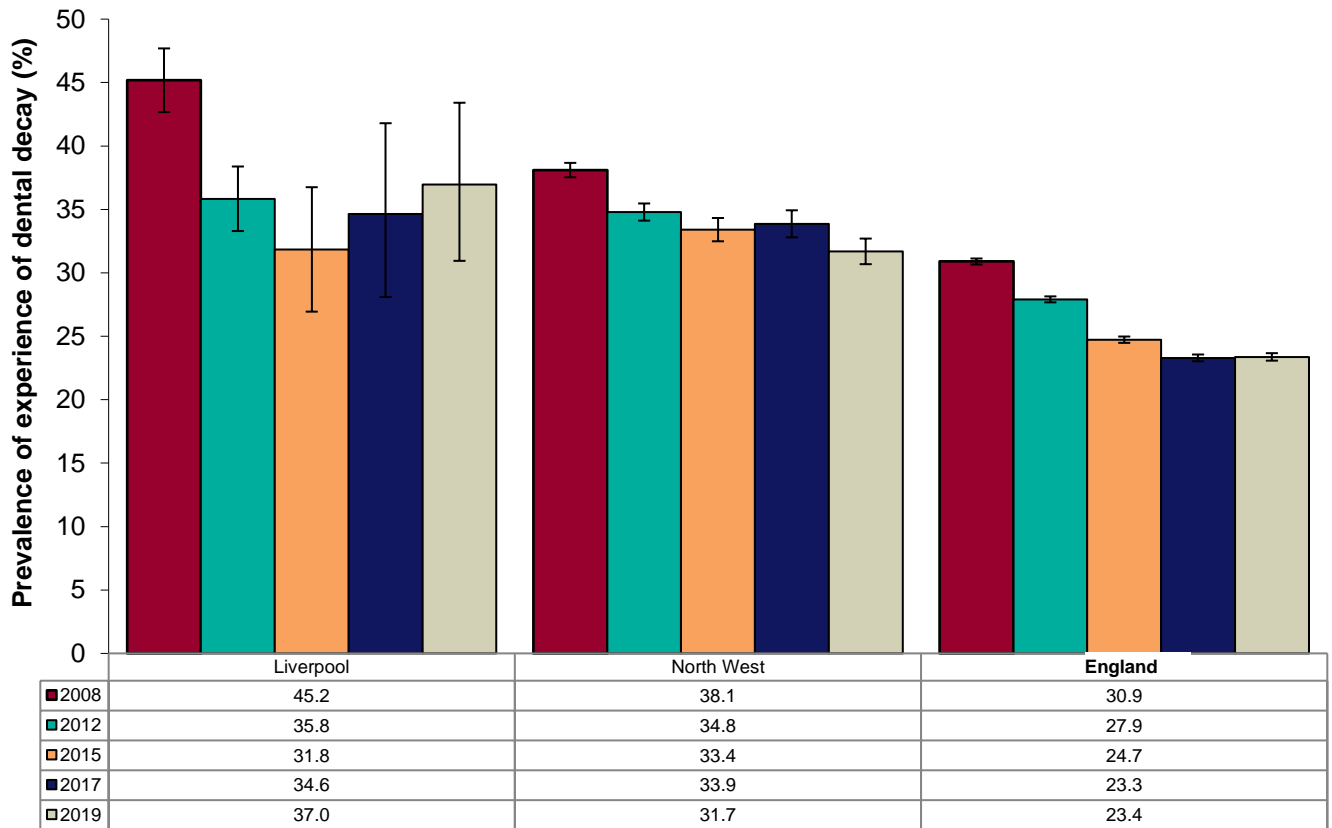
Error bars represent 95% confidence limits

**Figure 3:** Slope index of inequality in the prevalence of experience of dental decay in 5-year-olds in the North West.



Error bars represent 95% confidence limits

**Figure 4:** Prevalence of experience of dental decay in 5-year-olds in Liverpool, the North West and England, by year.

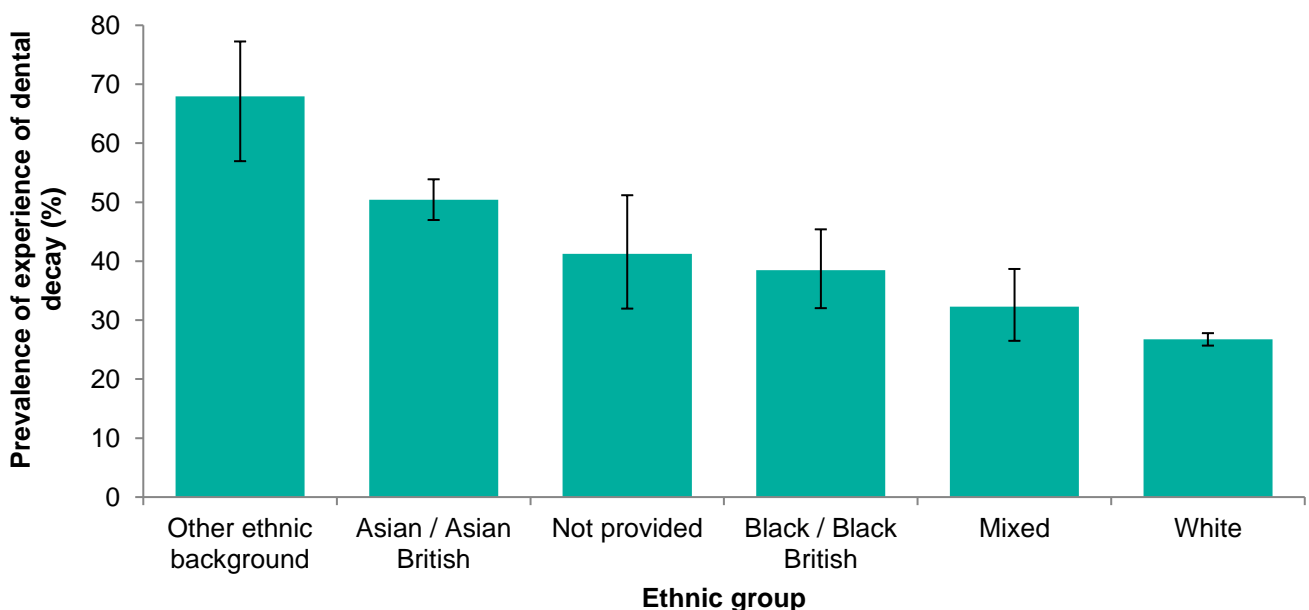


Error bars represent 95% confidence limits

**Table 3:** Experience of dental decay in 5-year-olds in the North West, by ethnic group.

Ethnic group	Number of children examined (N)	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay among children with any experience of dental decay n (95% CI)	Prevalence of dental decay affecting incisors (%)
Other ethnic background	78	67.9	5.0 (4.05 - 5.98)	30.8
Asian / Asian British	803	50.4	4.7 (4.39 - 5.07)	20.0
Not provided	97	41.2	3.8 (2.59 - 4.96)	9.3
Black / Black British	200	38.5	3.9 (3.25 - 4.62)	12.5
Mixed	223	32.3	3.4 (2.74 - 4.10)	9.0
White	6,753	26.7	3.4 (3.25 - 3.51)	4.9
North West	8,154	31.7	3.8 (3.65 - 3.89)	7.7

**Figure 5:** Prevalence of experience of dental decay in 5-year-olds in the North West, by ethnic group.



Error bars represent 95% confidence limits

## Summary

In Liverpool average levels of dental decay are higher than the average for England.

The small sample size means it is not possible to provide information at ward level. Future surveys could be commissioned to provide larger samples to facilitate local analysis.

Commissioning High Quality Information to Support Oral Health Improvement: A toolkit about dental epidemiology for local authorities, commissioners and partners is available to support the commissioning of oral health surveys<sup>4</sup>.

Public health interventions can improve child oral health at a local level. Local authorities improving oral health: commissioning better oral health for children and young people is available to support local authorities to commission oral health improvement programmes for children and young people aged up to 19 years<sup>5</sup>.

If further local analysis is required, please contact the national dental public health team:

[DentalPHIntelligence@phe.gov.uk](mailto:DentalPHIntelligence@phe.gov.uk)

## References

1. Public Health England (2020). National Dental Epidemiology Programme for England: oral health survey of 5-year-olds 2019 [Online]. Available at: <https://www.gov.uk/government/statistics/oral-health-survey-of-5-year-old-children-2019> [Accessed 29 May 2020].
2. Pine, C.M., Pitts, N.B. and Nugent, Z.J. (1997a). British Association for the Study of Community Dentistry (BASCD) guidance on the statistical aspects of training and calibration of examiners for surveys of child dental health. A BASCD co-ordinated dental epidemiology programme quality standard. Community Dental Health 14 (Supplement 1):18-29.
3. Children's services statistical neighbour benchmarking tool [online]. Available at: [www.gov.uk/government/publications/local-authority-interactive-tool-lait](http://www.gov.uk/government/publications/local-authority-interactive-tool-lait) [Accessed 29 May 2020].
4. Public Health England (2016). Commissioning high quality information to support oral health improvement. A toolkit about dental epidemiology for local authorities, commissioners and partners [Online]. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/773332/Commissioning\\_High\\_Quality\\_Information\\_to\\_Support\\_Oral\\_Health\\_Improvement.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773332/Commissioning_High_Quality_Information_to_Support_Oral_Health_Improvement.pdf)



5. Public Health England (2014). Local authorities improving oral health: commissioning better oral health for children and young people [Online]. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/321503/CBOHMaindocumentJUNE2014.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/321503/CBOHMaindocumentJUNE2014.pdf)

More information is available at [www.gov.uk/government/collections/oral-health](http://www.gov.uk/government/collections/oral-health)  
Please send any enquiries to [DentalPHIntelligence@phe.gov.uk](mailto:DentalPHIntelligence@phe.gov.uk)

PHE publications gateway number: GW-1530

© Crown Copyright, 2021. You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence](http://www.nationalarchives.gov.uk/doc/open-government-licence)