



# Birmingham

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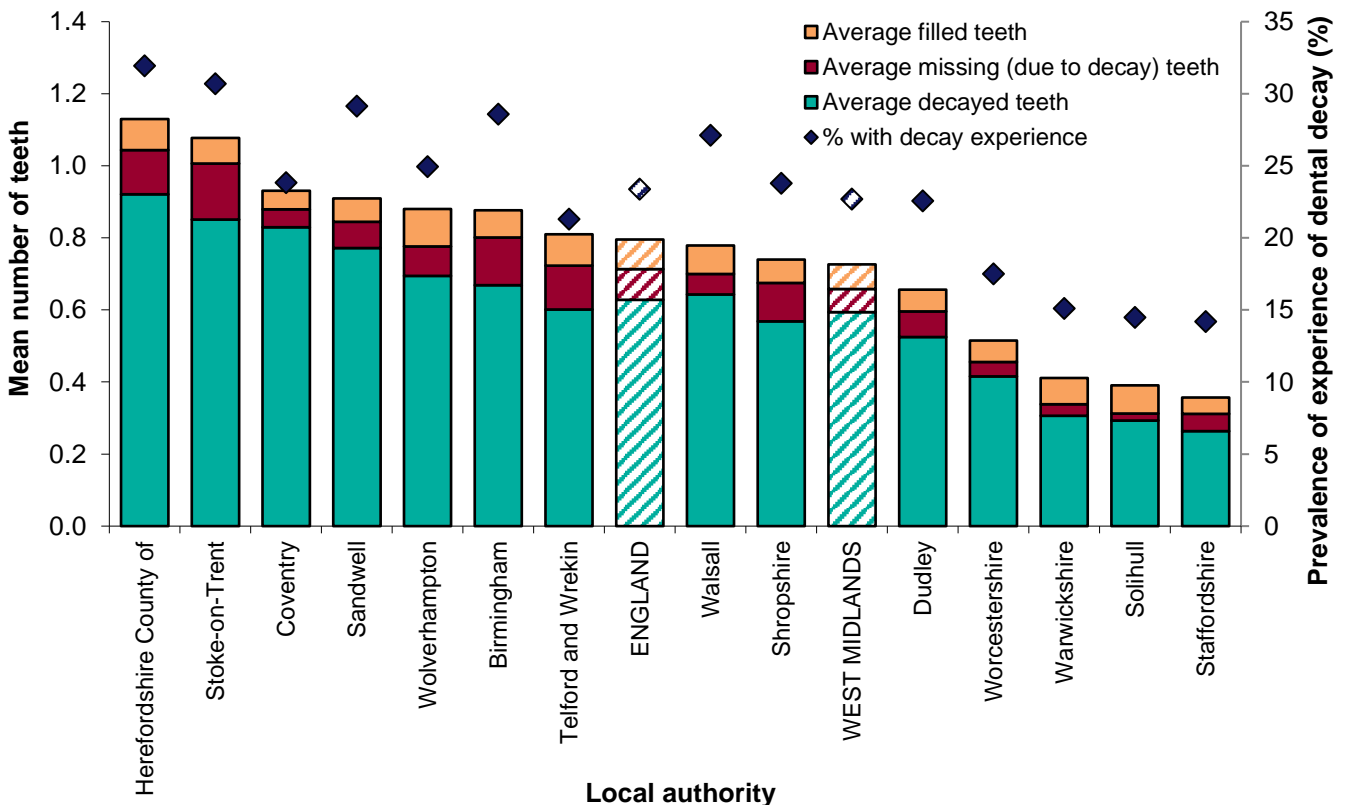
## Oral health of 5-year-old children

This profile describes the oral health of 5-year-olds living in Birmingham. 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 Birmingham 492 5-year-olds (approximately 58.8% 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 Birmingham, other local authorities in the West Midlands and England.



**Table 1:** Experience of dental decay in 5-year-olds in Birmingham, other local authorities in the West Midlands 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)
Herefordshire, County of	31.9	1.1 (0.92 - 1.33)	3.5 (3.08 - 3.99)
Stoke-on-Trent	30.7	1.1 (0.84 - 1.31)	3.5 (3.01 - 4.02)
Sandwell	29.1	0.9 (0.81 - 1.01)	3.1 (2.88 - 3.36)
Birmingham	28.6	0.9 (0.69 - 1.06)	3.1 (2.59 - 3.54)
Walsall	27.1	0.8 (0.68 - 0.87)	2.9 (2.62 - 3.12)
Wolverhampton	24.9	0.9 (0.79 - 0.97)	3.5 (3.29 - 3.77)
Coventry	23.8	0.9 (0.84 - 1.03)	3.9 (3.63 - 4.18)
Shropshire	23.8	0.7 (0.44 - 1.04)	3.1 (2.28 - 3.94)
ENGLAND	23.4	0.8 (0.78 - 0.81)	3.4 (3.36 - 3.44)
WEST MIDLANDS	22.7	0.7 (0.70 - 0.75)	3.2 (3.11 - 3.29)
Dudley	22.6	0.7 (0.57 - 0.74)	2.9 (2.64 - 3.18)
Telford and Wrekin	21.3	0.8 (0.50 - 1.12)	3.8 (2.91 - 4.71)
Worcestershire	17.5	0.5 (0.46 - 0.57)	2.9 (2.74 - 3.15)
Warwickshire	15.1	0.4 (0.33 - 0.49)	2.7 (2.36 - 3.09)
Solihull	14.5	0.4 (0.23 - 0.55)	2.7 (2.08 - 3.31)
Staffordshire	14.2	0.4 (0.3 - 0.42)	2.5 (2.23 - 2.8)

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

	Birmingham	Statistical neighbour within West Midlands: Sandwell	Statistical neighbour comparator 1: Luton	West Midlands	England
Prevalence of experience of dental decay	28.6%	29.1%	36.8%	22.7%	23.4%
Mean number of teeth with experience of dental decay	0.9	0.9	1.5	0.7	0.8
Mean number of teeth with experience of decay in those with experience of dental decay	3.1	3.1	4.1	3.2	3.4
Mean number of decayed teeth in those with experience of dental decay	2.3	2.6	3.2	2.6	2.7
Proportion with active decay	24.2%	26.2%	32.1%	20.1%	20.4%
Proportion with experience of tooth extraction <sup>ii</sup>	2.2%	2.3%	5.5%	1.7%	2.2%
Proportion with dental abscess	0.0%	0.2%	1.3%	0.8%	1.0%
Proportion with teeth decayed into pulp	3.7%	3.5%	7.7%	2.9%	3.3%
Proportion with decay affecting incisors <sup>iii</sup>	6.4%	6.8%	13.3%	4.9%	5.2%
Proportion with high levels of plaque present on upper front teeth <sup>iv</sup>	0.8%	0.3%	1.4%	0.9%	1.2%

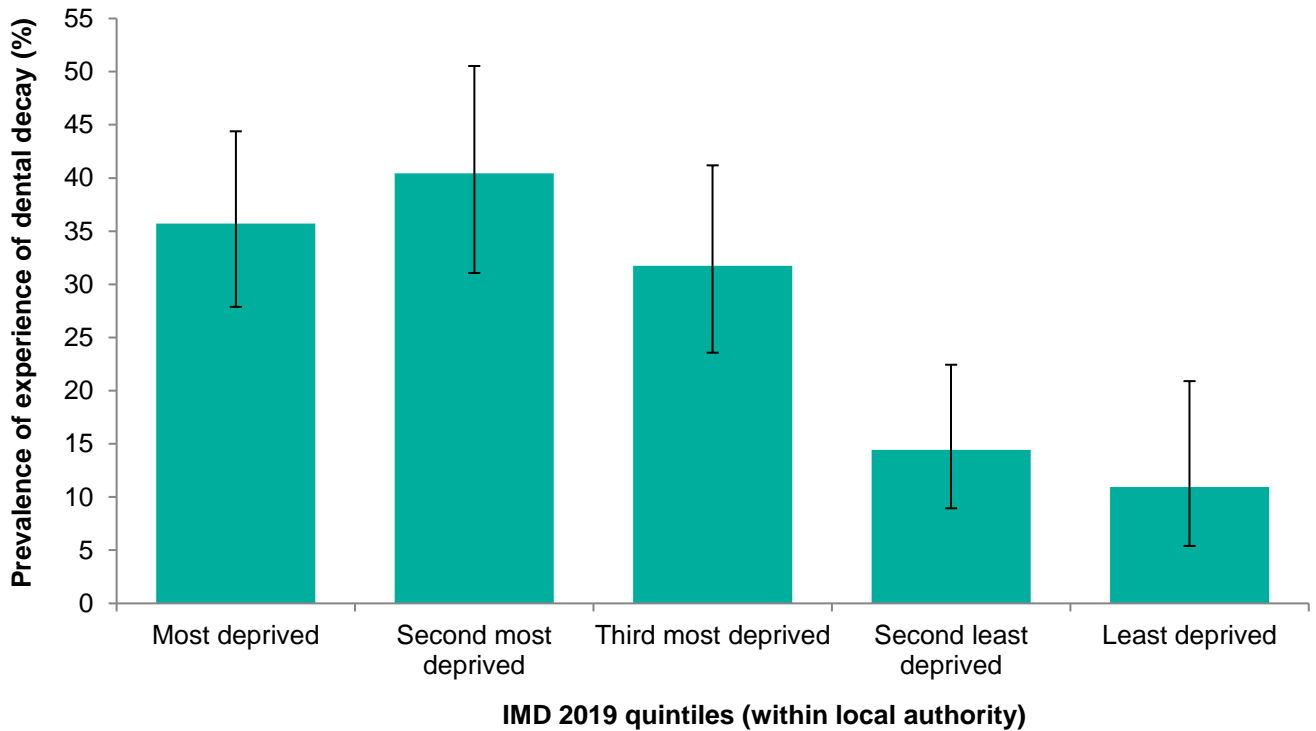
<sup>i</sup> generated by the children's services statistical neighbour benchmarking tool, the neighbour within the West Midlands has "Close" comparator characteristics and the national neighbour 1 has "Very Close" comparator characteristics<sup>3</sup>.

<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.

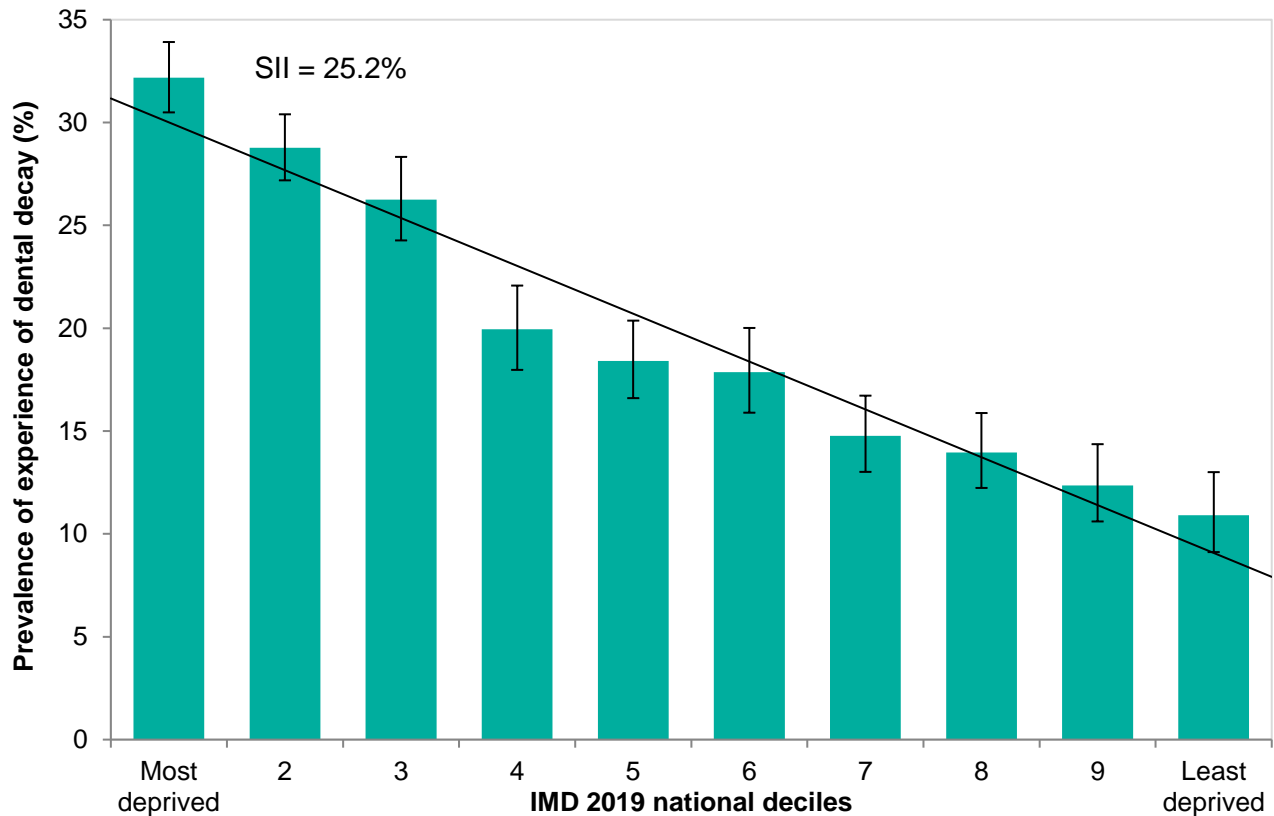
<sup>iv</sup> indicative of poor tooth brushing habits.

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



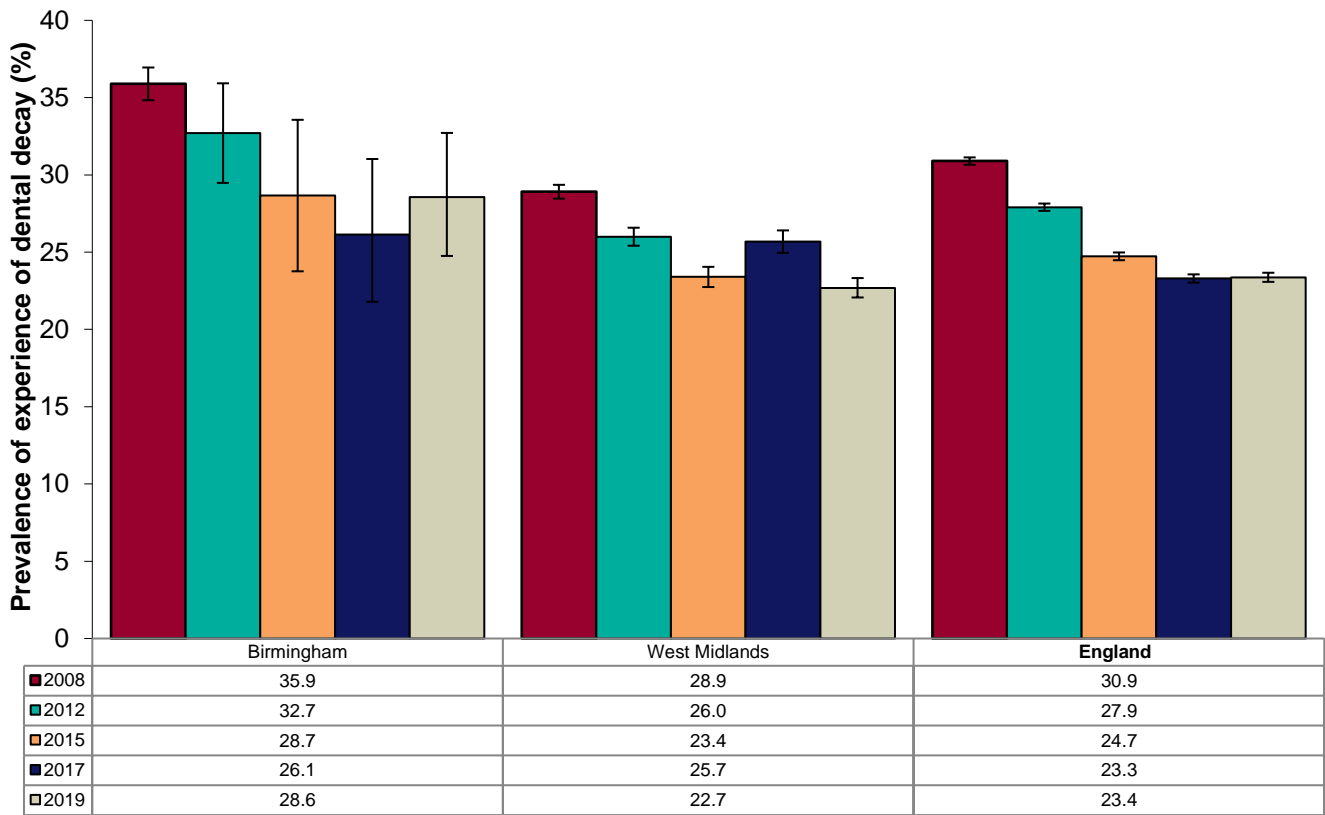
Error bars represent 95% confidence limits

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



Error bars represent 95% confidence limits

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

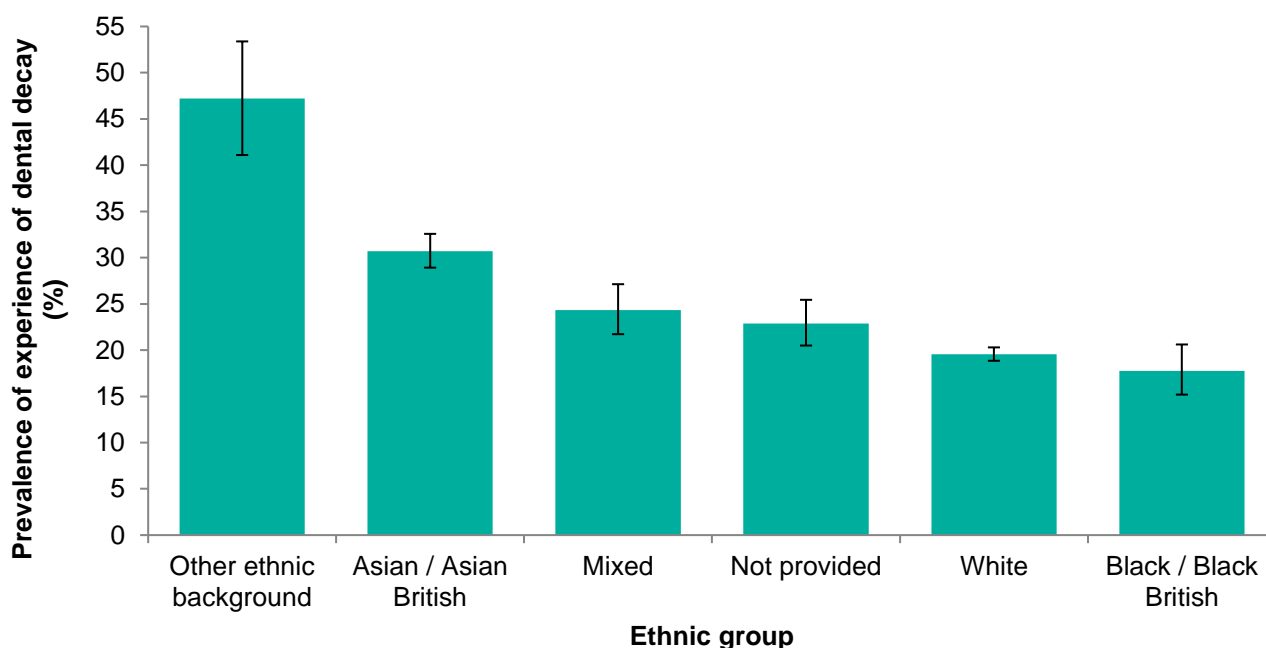


Error bars represent 95% confidence limits

**Table 3:** Experience of dental decay in 5-year-olds in the West Midlands, 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	250	47.2	4.5 (3.90 - 5.12)	14.4
Asian / Asian British	2445	30.7	3.6 (3.41 - 3.82)	9.6
Mixed	966	24.3	3.1 (2.73 - 3.37)	4.2
Not provided	1106	22.9	3.3 (2.95 - 3.66)	6.8
White	11567	19.6	2.9 (2.84 - 3.05)	3.2
Black / Black British	761	17.7	3.2 (2.74 - 3.64)	4.2
West Midlands	17,095	22.7	3.2 (3.11 - 3.29)	4.9

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



Error bars represent 95% confidence limits

**Table 4:** Prevalence and severity of experience of dental decay in 5-year-olds in Birmingham, by parliamentary constituency.

Parliamentary constituency	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay in all examined children n (95% CI)	Mean number of teeth with experience of dental decay in children with any decay experience n (95% CI)
Ladywood	50.0	2.2 (1.31 - 3.03)	4.3 (2.99 - 5.69)
Hodge Hill	38.4	1.5 (1.03 - 1.94)	3.9 (3.01 - 4.72)
Yardley	28.6	1.0 (0.59 - 1.51)	3.7 (2.50 - 4.84)
Erdington	27.9	0.7 (0.43 - 1.00)	2.6 (1.83 - 3.29)
Perry Barr	27.5	0.5 (0.28 - 0.64)	1.7 (1.44 - 1.92)
Edgbaston	24.2	0.6 (0.38 - 0.83)	2.5 (1.89 - 3.11)
Hall Green	19.3	0.6 (0.14 - 1.16)	3.4 (1.36 - 5.36)
Northfield	18.5	0.4 (0.25 - 0.59)	2.3 (1.69 - 2.85)
Selly Oak	16.1	0.3 (0.10 - 0.55)	2.00 (1.27 - 2.73)
Sutton Coldfield	13.3	0.2 (0.09 - 0.36)	1.7 (1.16 - 2.17)

**Table 5:** Prevalence and severity of experience of dental decay in 5-year-olds in Birmingham, by locality.

Locality	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay in all examined children n (95% CI)	Mean number of teeth with experience of dental decay in children with any decay experience n (95% CI)
West	37.5	1.2 (0.81 - 1.64)	3.3 (2.38 - 4.13)
East	34.2	1.3 (0.97 - 1.62)	3.8 (3.11 - 4.48)
North	21.7	0.5 (0.33 - 0.68)	2.3 (1.76 - 2.89)
South	21.3	0.5 (0.37 - 0.65)	2.4 (1.97 - 2.82)
Central	17.7	0.5 (0.21 - 0.77)	2.8 (1.59 - 3.91)

## Summary

In Birmingham average levels of dental decay are higher than the average for England. Within Birmingham, the highest levels of experience of dental decay are in the Ladywood constituency and clustered around the West and East localities.

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

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