



# Gloucestershire

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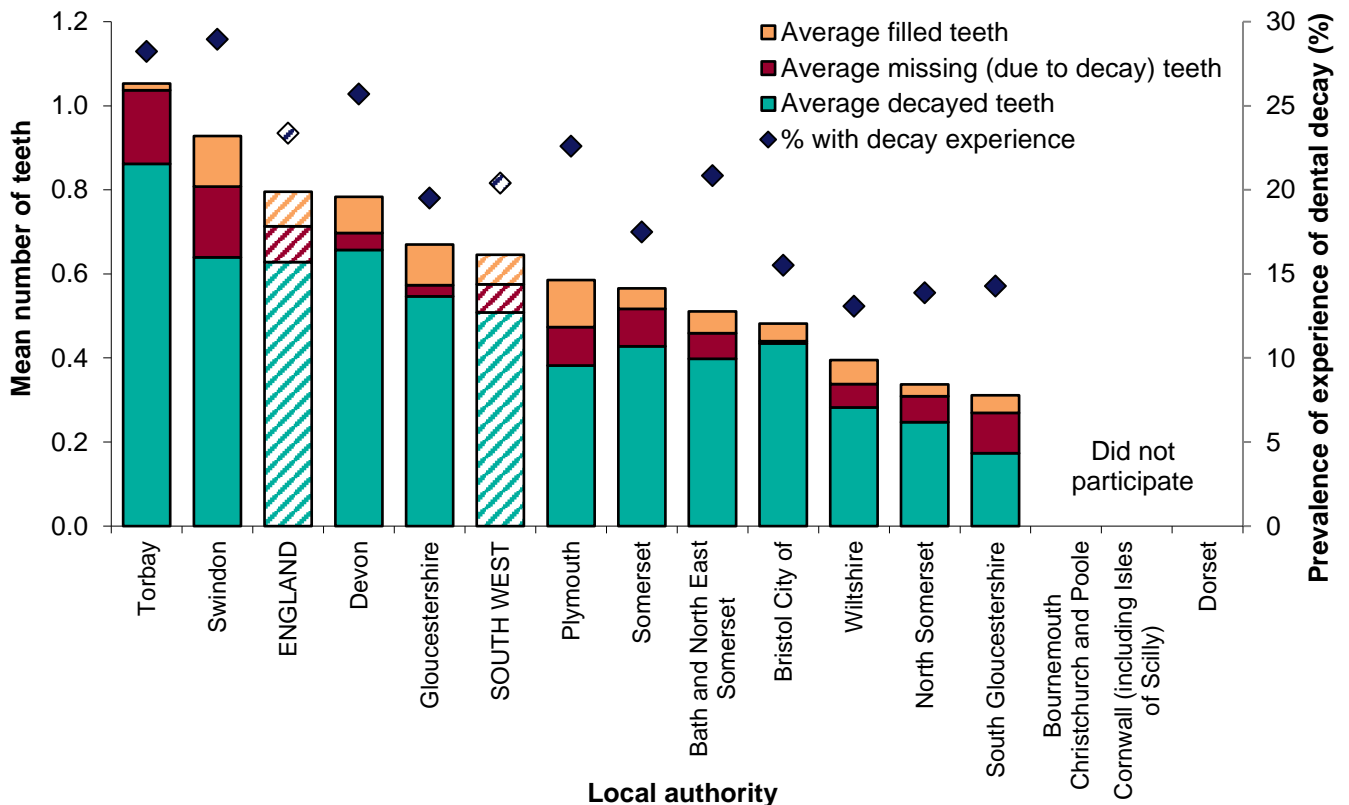
## Oral health of 5-year-old children

This profile describes the oral health of 5-year-olds living in Gloucestershire. 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 Gloucestershire 1,254 5-year-olds (approximately 60.3% 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 Gloucestershire, other local authorities in the South West and England.



**Table 1:** Experience of dental decay in 5-year-olds in Gloucestershire, other local authorities in the South 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)
Swindon	28.9	0.9 (0.59 - 1.27)	3.2 (2.33 - 4.08)
Torbay	28.2	1.1 (0.77 - 1.34)	3.7 (3.01 - 4.44)
Devon	25.7	0.8 (0.65 - 0.91)	3.0 (2.69 - 3.41)
ENGLAND	23.4	0.8 (0.78 - 0.81)	3.4 (3.36 - 3.44)
Plymouth	22.6	0.6 (0.36 - 0.81)	2.6 (1.82 - 3.36)
Bath and North East Somerset	20.8	0.5 (0.32 - 0.70)	2.5 (1.86 - 3.04)
SOUTH WEST	20.4	0.6 (0.59 - 0.70)	3.2 (2.99 - 3.34)
Gloucestershire	19.5	0.7 (0.56 - 0.78)	3.4 (3.02 - 3.85)
Somerset	17.5	0.6 (0.47 - 0.66)	3.2 (2.84 - 3.63)
Bristol, City of	15.5	0.5 (0.22 - 0.74)	3.1 (1.91 - 4.31)
South Gloucestershire	14.3	0.3 (0.15 - 0.47)	2.2 (1.36 - 2.99)
North Somerset	13.9	0.3 (0.11 - 0.56)	2.4 (1.77 - 3.09)
Wiltshire	13.1	0.4 (0.23 - 0.56)	3.0 (2.24 - 3.8)
Bournemouth, Christchurch and Poole	Did Not Participate		
Cornwall (including Isles of Scilly)	Did Not Participate		
Dorset	Did Not Participate		

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

	Gloucestershire	Statistical neighbour within South West: Wiltshire	Statistical neighbour comparator 1: Wiltshire	South West	England
Prevalence of experience of dental decay	19.5%	13.1%	13.1%	20.4%	23.4%
Mean number of teeth with experience of dental decay	0.7	0.4	0.4	0.6	0.8
Mean number of teeth with experience of decay in those with experience of dental decay	3.4	3.0	3.0	3.2	3.4
Mean number of decayed teeth in those with experience of dental decay	2.7	2.3	2.3	2.5	2.7
Proportion with active decay	16.4%	10.9%	10.9%	17.3%	20.4%
Proportion with experience of tooth extraction <sup>ii</sup>	0.8%	1.4%	1.4%	1.9%	2.2%
Proportion with dental abscess	1.1%	0.4%	0.4%	1.0%	1.0%
Proportion with teeth decayed into pulp	3.2%	0.9%	0.9%	2.2%	3.3%
Proportion with decay affecting incisors <sup>iii</sup>	4.1%	2.7%	2.7%	4.0%	5.2%
Proportion with high levels of plaque present on upper front teeth <sup>iv</sup>	5.4%	1.7%	1.7%	1.9%	1.2%

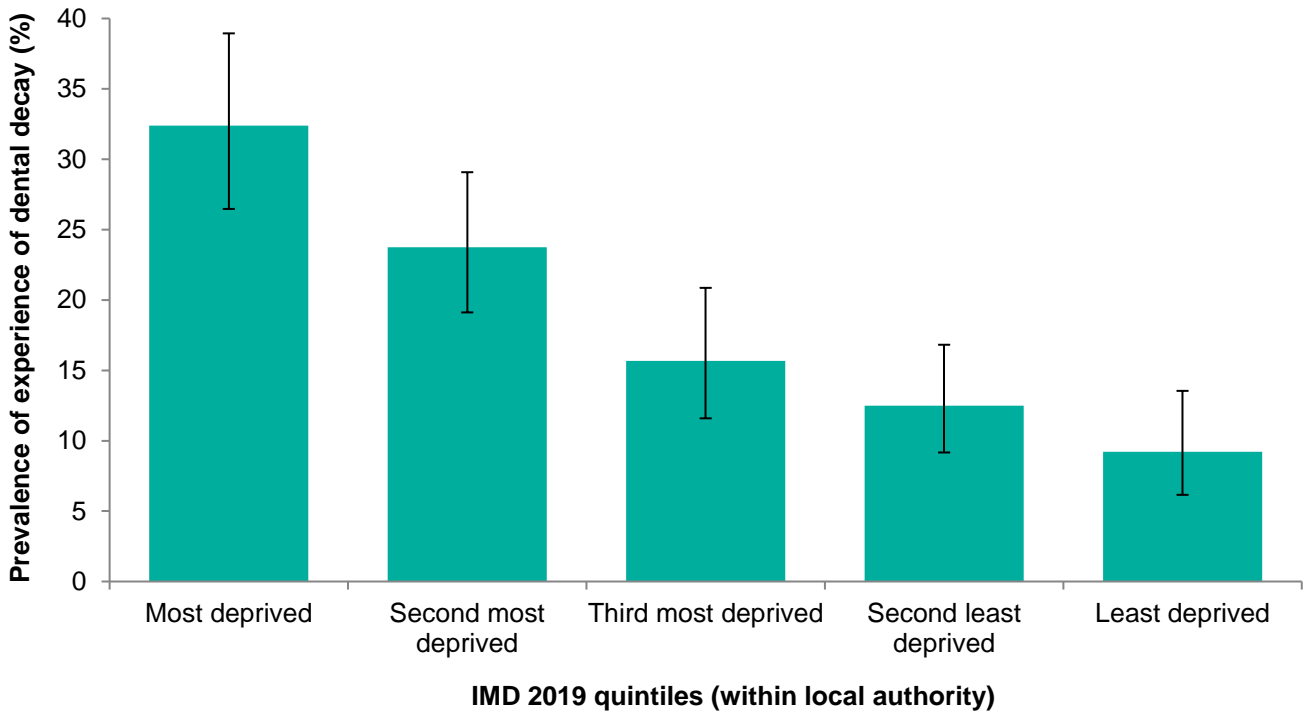
<sup>i</sup> generated by the children's services statistical neighbour benchmarking tool, the neighbour within the South West has "Extremely Close" comparator characteristics and the national neighbour 1 has "Extremely Close" comparator characteristics<sup>3</sup>.

<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.

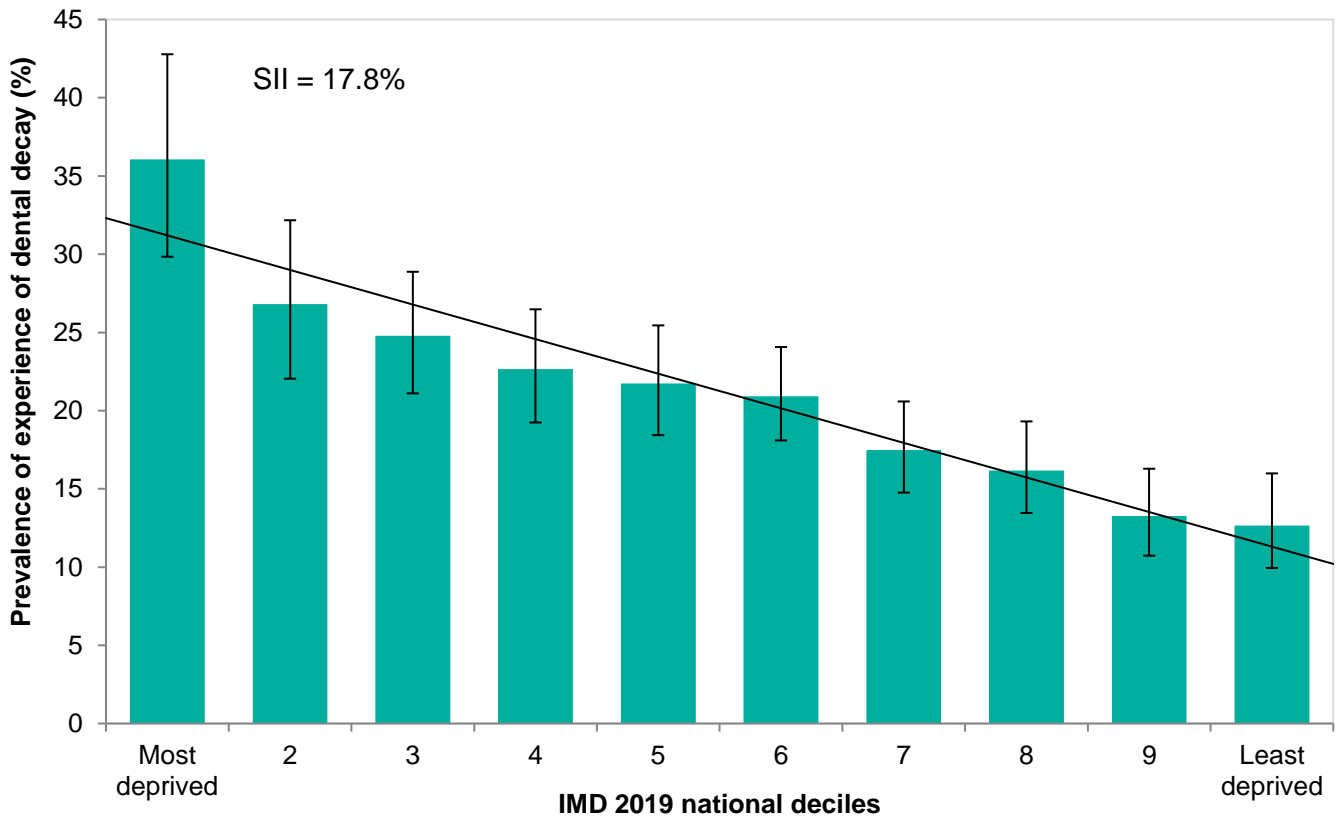
<sup>iv</sup> indicative of poor tooth brushing habits.

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



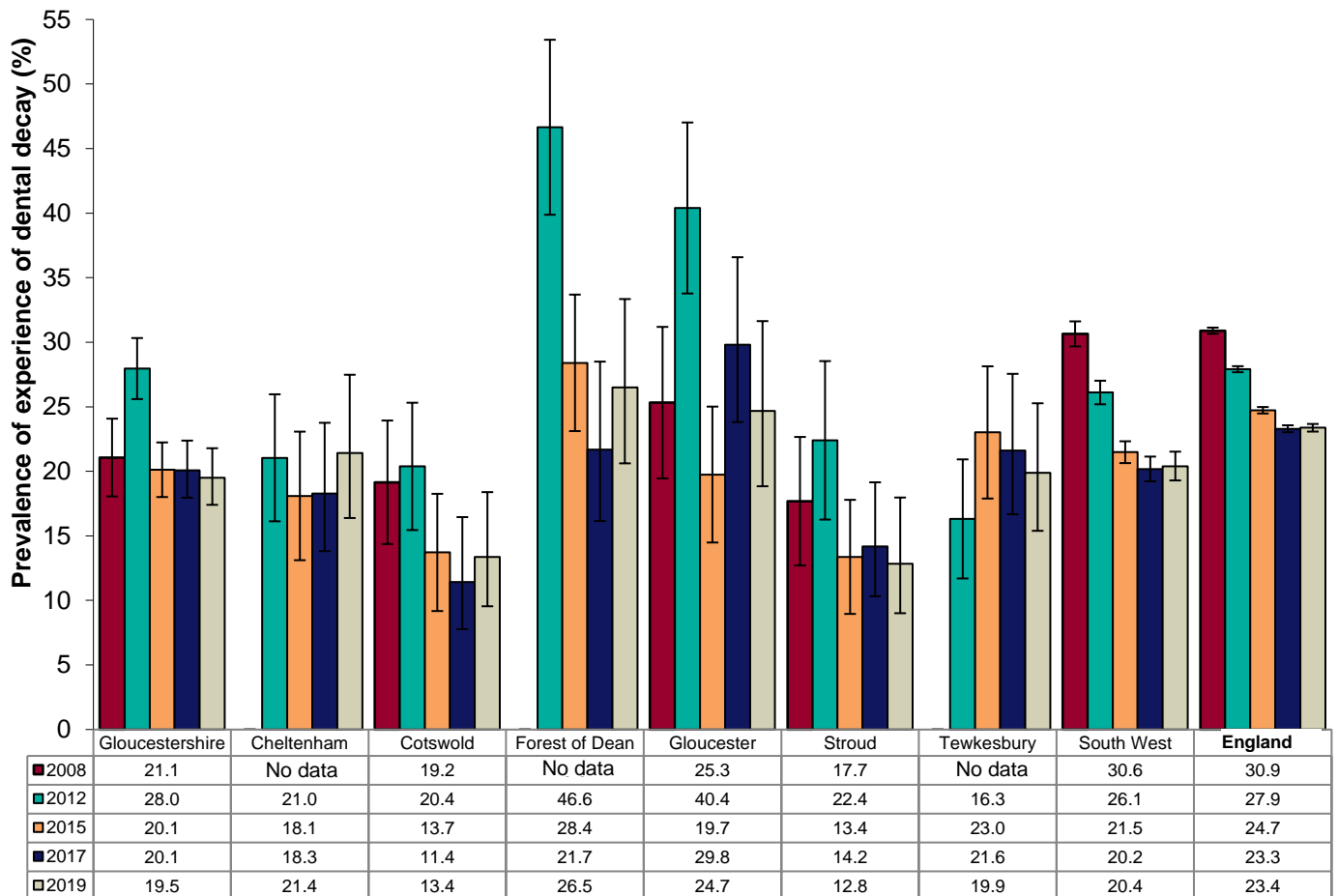
Error bars represent 95% confidence limits

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



Error bars represent 95% confidence limits

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

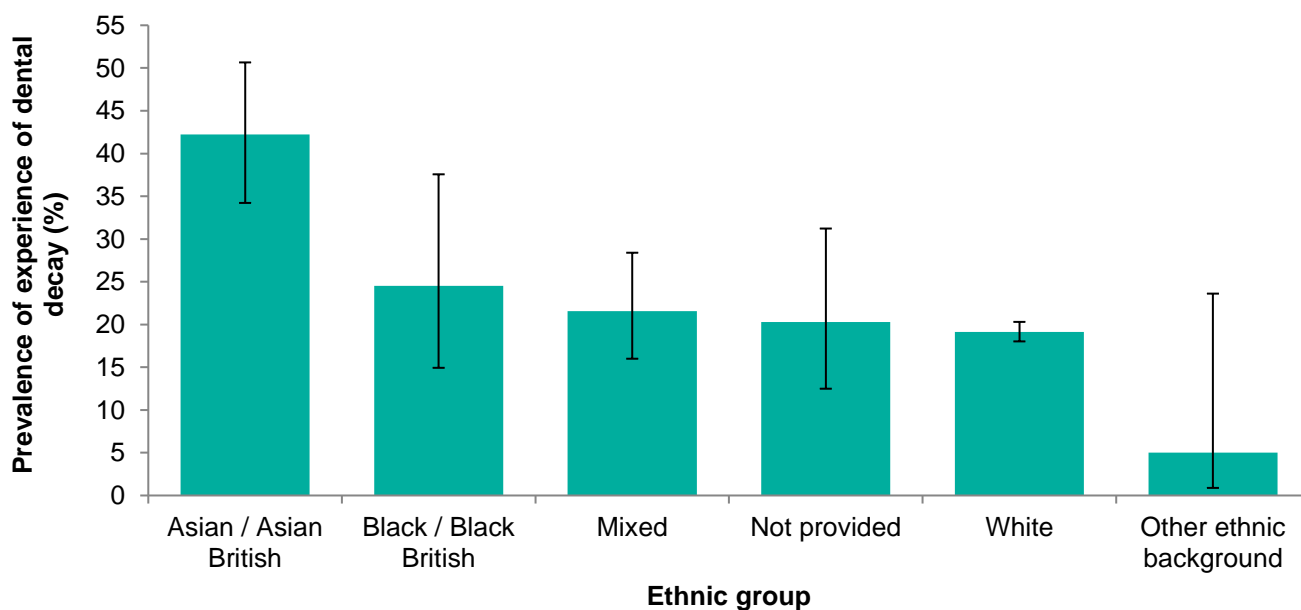


Error bars represent 95% confidence limits

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

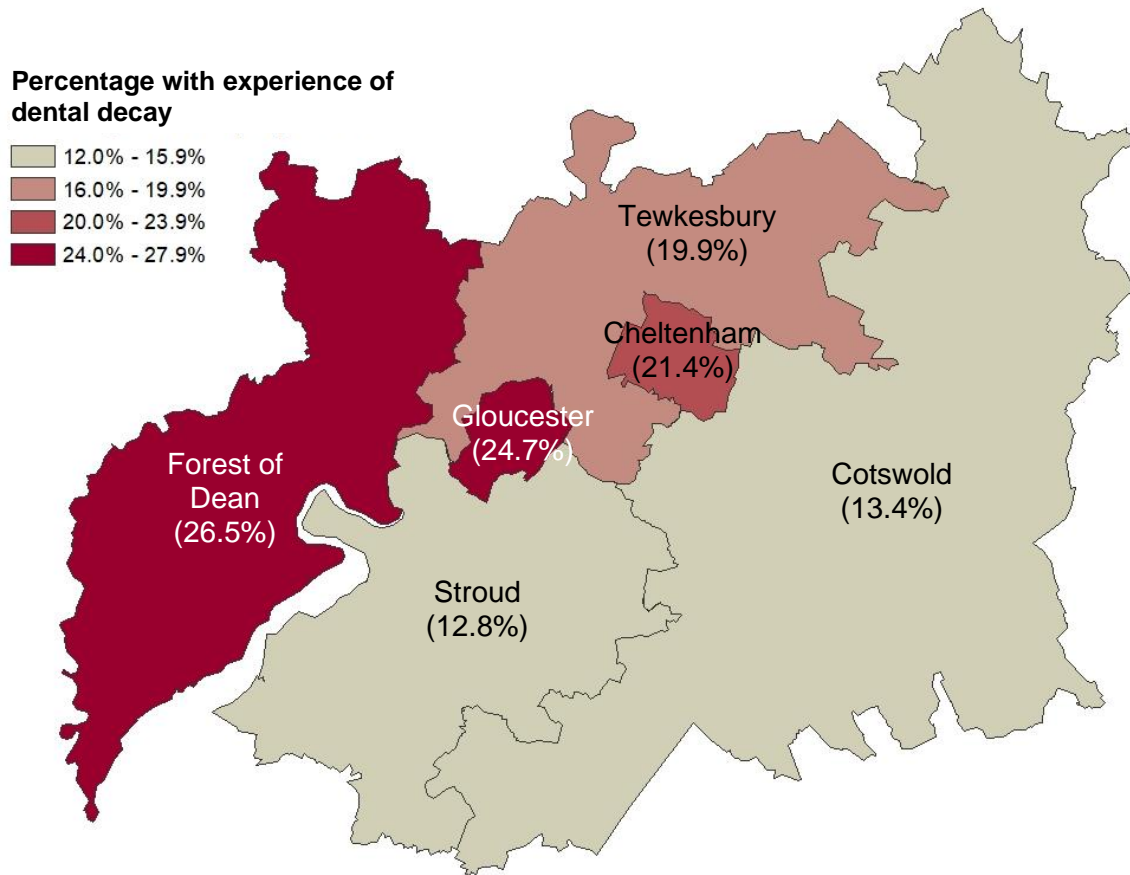
Ethnic group	Number of children examined (N)	Prevalence of experience of dental decay (%)	Mean number of teeth with experience of dental decay among children with any experience of dental decay n (95% CI)	Prevalence of dental decay affecting incisors (%)
Asian / Asian British	135	42.2	4.3 (3.39 - 5.21)	24.4
Black / Black British	53	24.5	2.2 (1.34 - 3.12)	3.8
Mixed	167	21.6	3.7 (2.72 - 4.72)	4.8
Not provided	69	20.3	3.2 (2.14 - 4.29)	5.8
White	4,577	19.1	3.0 (2.85 - 3.21)	3.2
Other ethnic background	20	5.0	2.0 (2.0 - 2.0)	0.0
South West	5,021	20.4	3.2 (2.99 - 3.34)	4.0

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

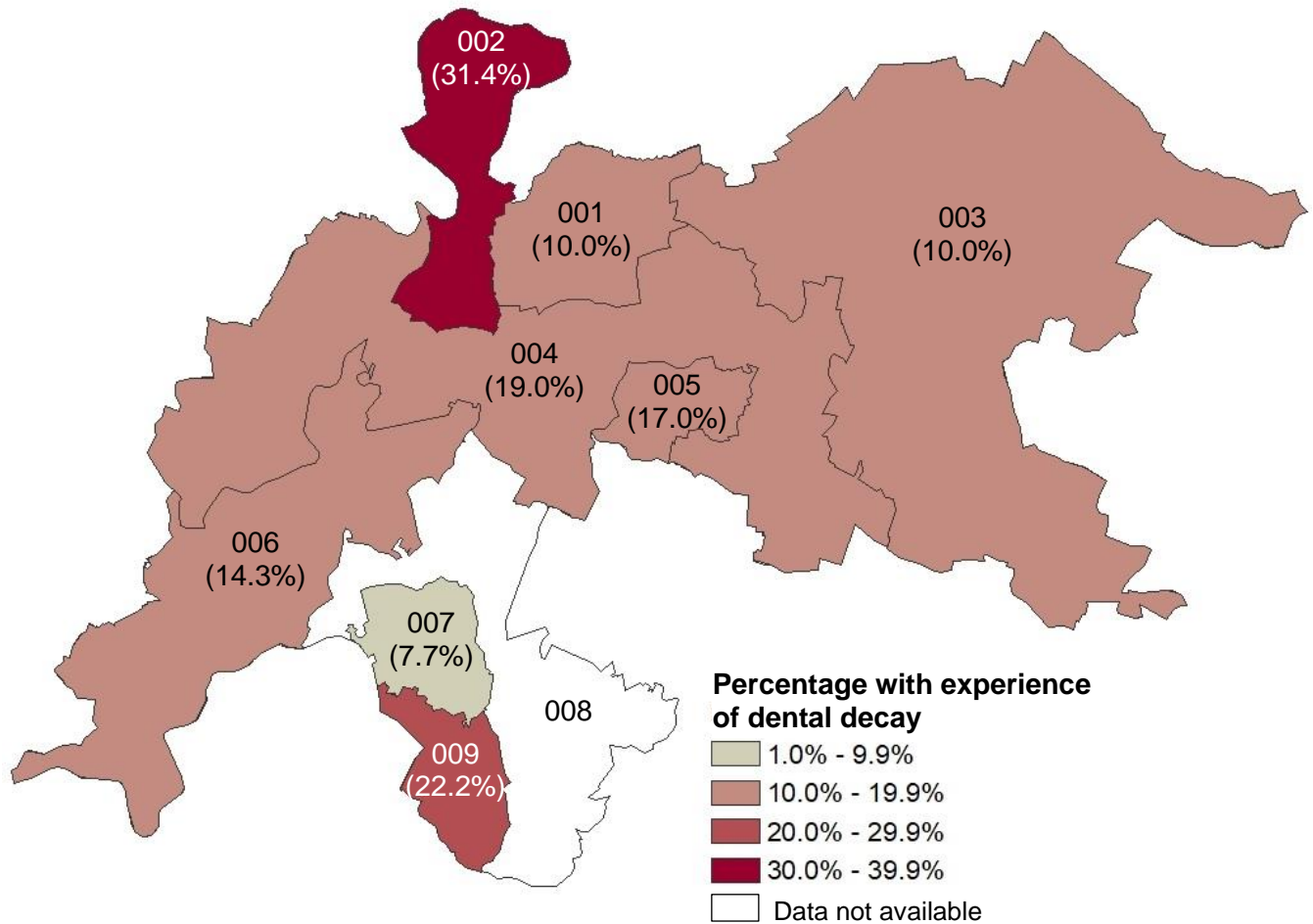


Error bars represent 95% confidence limits

**Figure 6:** Prevalence of experience of dental decay in 5-year-olds in Gloucestershire, by lower-tier local authority.



**Figure 7:** Prevalence of experience of dental decay in 5-year-olds in Tewkesbury, by middle super output area.





## Summary

In Gloucestershire average levels of dental decay are lower than the average for England, however, within Gloucestershire there are areas where there are higher than average levels of experience of dental decay. At lower-tier local authority level, children living in Forest of Dean and Gloucester have the highest levels of experience of dental decay. Within Gloucestershire, the highest levels of experience of dental decay in Tewkesbury LA are clustered around the 002 middle super output area.

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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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)

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