



Derby

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Oral health of 5-year-old children

This profile describes the oral health of 5-year-olds living in Derby. It uses data from the National Dental Epidemiology Programme 2019 survey of 5-year-old children¹.

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



In Derby 124 5-year-olds (approximately 37.2% of those sampled) were examined at school by trained and calibrated examiners using the national standard method².

Figure 1: Prevalence of experience of dental decay and mean number of teeth with experience of dental decay in 5-year-olds in Derby, other local authorities in the East Midlands and England.

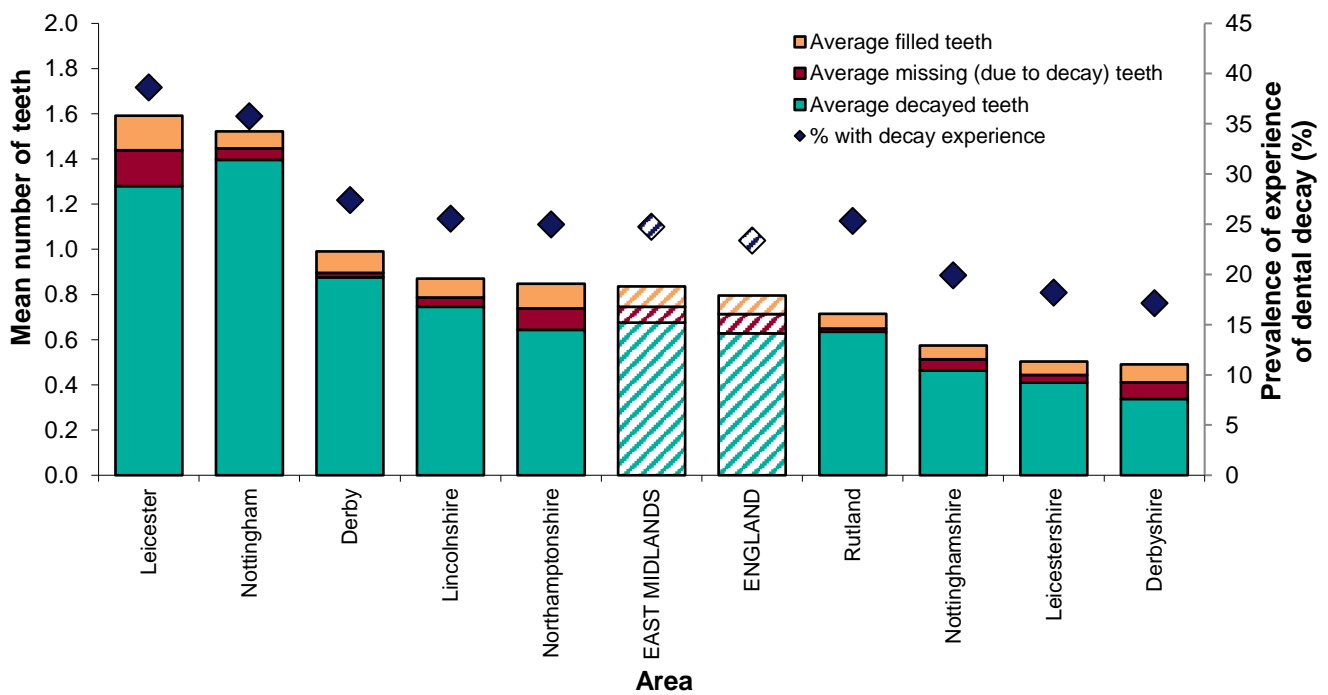


Table 1: Experience of dental decay in 5-year-olds in Derby, other local authorities in the East Midlands and England.

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)
Leicester	38.6	1.6 (1.42 – 1.76)	4.1 (3.81 – 4.44)
Nottingham	35.8	1.5 (1.11 – 1.93)	4.3 (3.45 – 5.06)
Derby	27.4	1.0 (0.55 – 1.43)	3.6 (2.45 – 4.78)
Lincolnshire	25.5	0.9 (0.78 – 0.96)	3.4 (3.16 – 3.65)
Northamptonshire	25.0	0.8 (0.76 – 0.94)	3.4 (3.15 – 3.64)
East Midlands	24.7	0.8 (0.80 – 0.88)	3.4 (3.26 – 3.49)
England	23.4	0.8 (0.78 – 0.81)	3.4 (3.36 – 3.44)
Rutland	25.3	0.7 (0.53 – 0.90)	2.8 (2.39 – 3.25)
Nottinghamshire	19.9	0.6 (0.49 – 0.65)	2.9 (2.61 – 3.16)
Leicestershire	18.2	0.5 (0.44 – 0.57)	2.8 (2.52 – 3.02)
Derbyshire	17.1	0.5 (0.41 – 0.57)	2.9 (2.56 – 3.17)

Table 2. Measures of oral health among 5-year-olds in Derby, it's statistical neighbours,ⁱ the East Midlands and England.

	Derby	Statistical neighbour within East Midlands: Northamptonshire	Statistical neighbour comparator 1: Sheffield	East Midlands	England
Prevalence of experience of dental decay	27.4%	25.0%	41.0%	24.7%	23.4%
Mean number of teeth with experience of dental decay	1.0	0.8	1.6	0.8	0.8
Mean number of teeth with experience of decay in those with experience of dental decay	3.6	3.4	4.0	3.4	3.4
Mean number of decayed teeth in those with experience of dental decay	2.9	2.5	3.1	2.7	2.7
Proportion with active decay	23.7%	21.7%	38.8%	21.7%	20.4%
Proportion with experience of tooth extraction ⁱⁱ	1.0%	2.3%	4.2%	1.8%	2.2%
Proportion with dental abscess	1.0%	1.4%	1.2%	1.6%	1.0%
Proportion with teeth decayed into pulp	4.0%	3.3%	10.3%	4.1%	3.3%
Proportion with decay affecting incisors ⁱⁱⁱ	4.7%	4.1%	15.4%	4.6%	5.2%
Proportion with high levels of plaque present on upper front teeth ^{iv}	0.0%	0.6%	0.6%	0.4%	1.2%

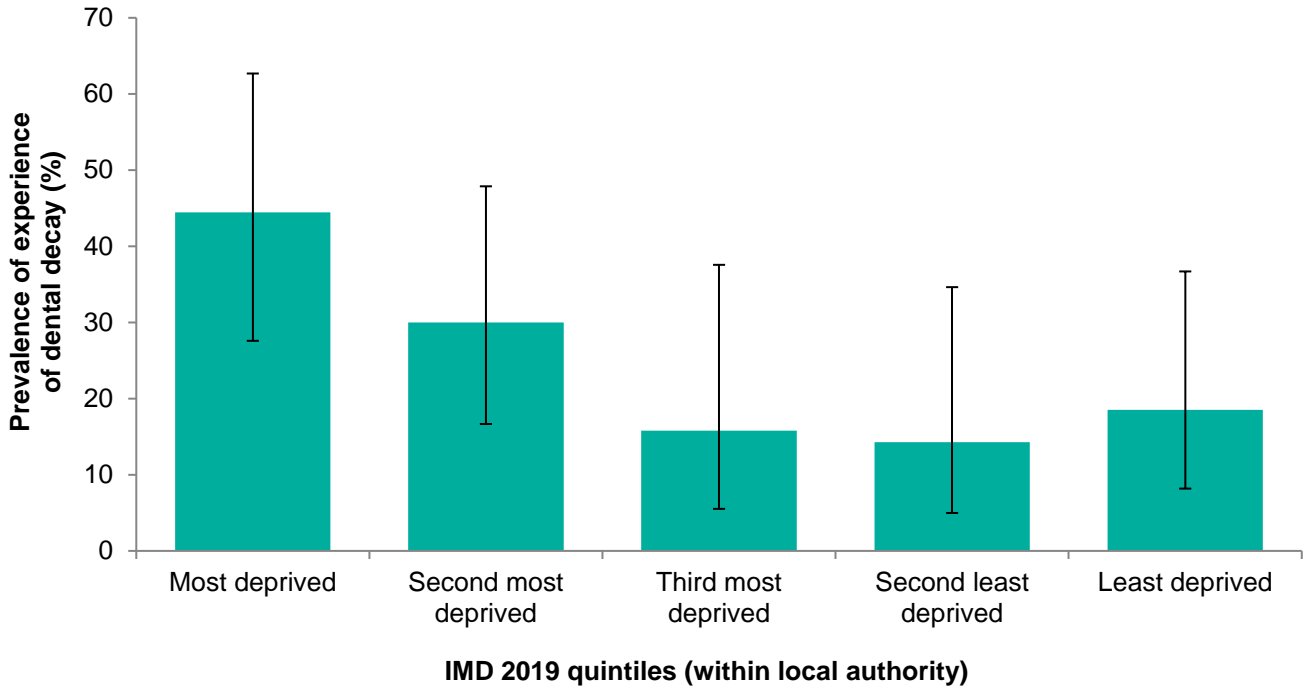
ⁱ generated by the children's services statistical neighbour benchmarking tool, the neighbour within the East Midlands has "close" comparator characteristics and the national neighbour 1 has "very close" comparator characteristics³.

ⁱⁱ experience of extraction of one or more teeth on one or more occasions.

ⁱⁱⁱ dental decay involving one or more surfaces of upper anterior teeth.

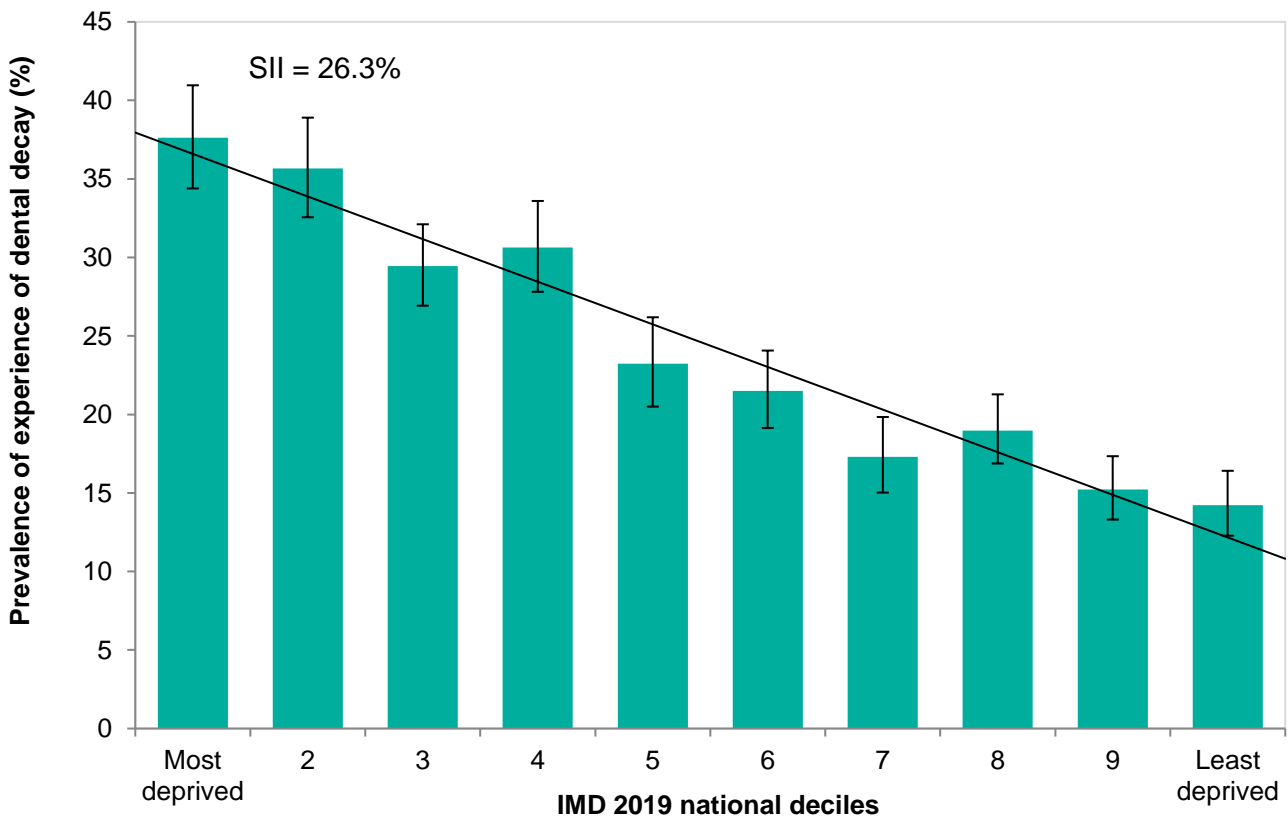
^{iv} indicative of poor tooth brushing habits.

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



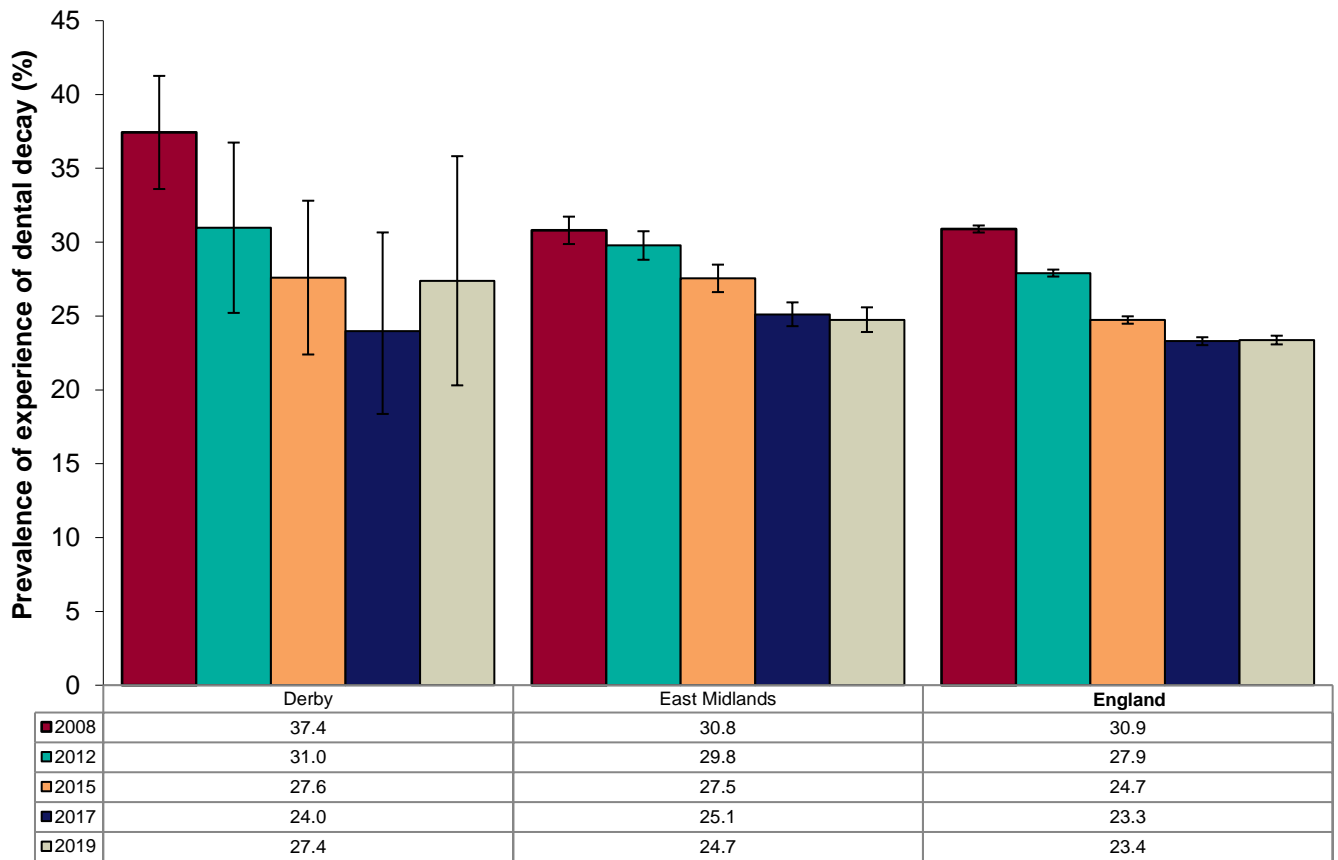
Error bars represent 95% confidence limits

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



Error bars represent 95% confidence limits

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

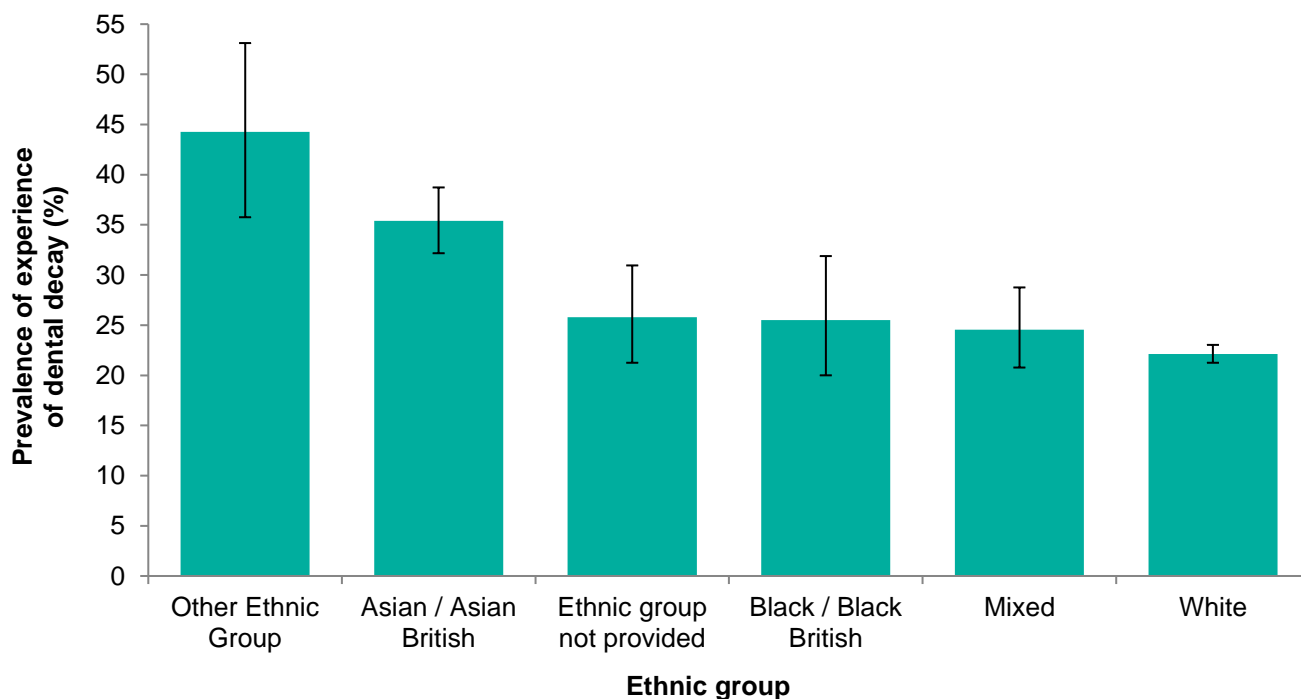


Error bars represent 95% confidence limits

Table 3: Experience of dental decay in 5-year-olds in the East 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	122	44.3	4.6 (3.67 – 5.59)	12.3
Asian/Asian British	814	35.4	3.9 (3.53 – 4.27)	11.5
Not provided	310	25.8	3.3 (2.73 – 3.80)	5.2
Black/Black British	204	25.5	3.6 (2.84 – 4.36)	7.4
Mixed	444	24.5	2.9 (2.38 – 3.34)	3.8
White	8,355	22.1	3.2 (3.10 - 3.35)	3.5
East Midlands	10,249	24.7	3.4 (3.26 – 3.49)	4.6

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



Error bars represent 95% confidence limits

Summary

In Derby 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 surveys⁴.

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 years⁵.

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

DentalPHIntelligence@phe.gov.uk

References

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More information is available at www.gov.uk/government/collections/oral-health
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