



Lincolnshire

Published October 2020

Oral health of 5-year-old children

This profile describes the oral health of 5-year-olds living in Lincolnshire. 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 Lincolnshire 2,115 5-year-olds (approximately 70.5% 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 Lincolnshire, other local authorities in the East Midlands and England.

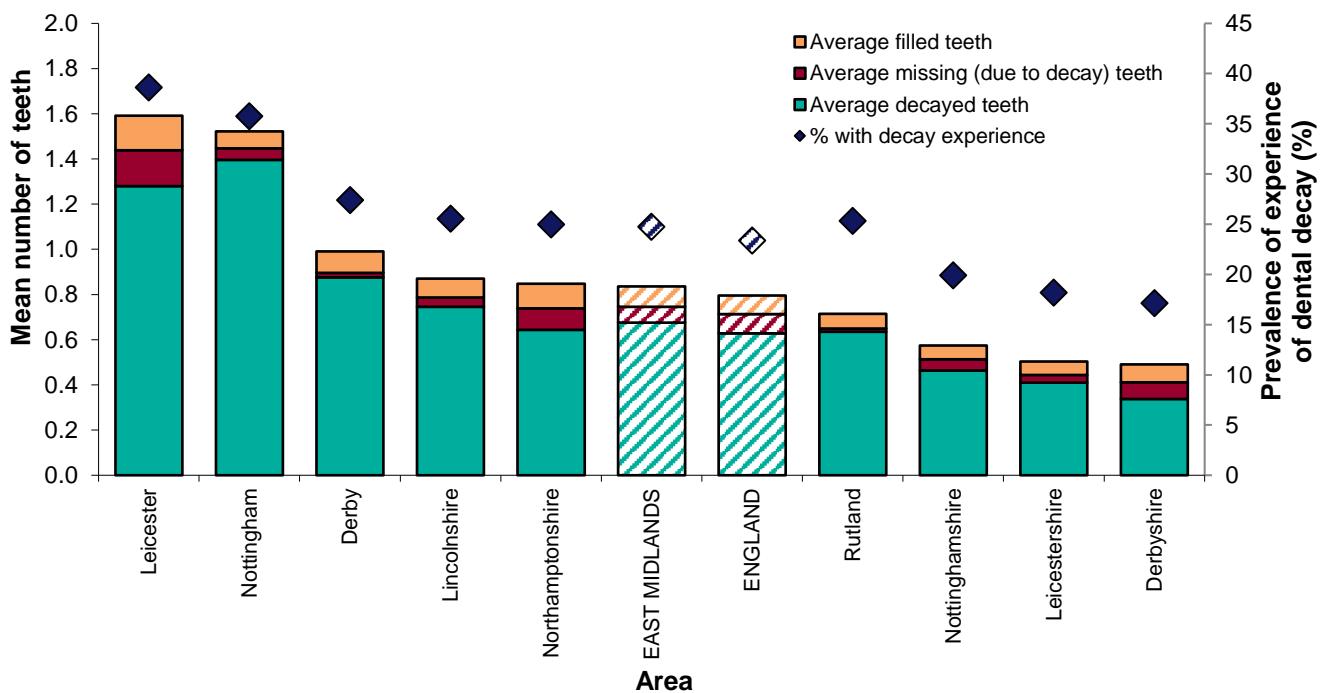


Table 1: Experience of dental decay in 5-year-olds in Lincolnshire, other local authorities in the East Midlands and England.

| 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 Lincolnshire, it's statistical neighbours,ⁱ the East Midlands and England.

| | Lincolnshire | Statistical neighbour within East Midlands: Derbyshire | Statistical neighbour comparator 1: Cumbria | East Midlands | England |
|--|--------------|--|---|---------------|---------|
| Prevalence of experience of dental decay | 25.5% | 17.1% | 24.2% | 24.7% | 23.4% |
| Mean number of teeth with experience of dental decay | 0.9 | 0.5 | 0.8 | 0.8 | 0.8 |
| Mean number of teeth with experience of decay in those with experience of dental decay | 3.4 | 2.9 | 3.2 | 3.4 | 3.4 |
| Mean number of decayed teeth in those with experience of dental decay | 2.9 | 2.0 | 2.5 | 2.7 | 2.7 |
| Proportion with active decay | 23.3% | 12.8% | 21.2% | 21.7% | 20.4% |
| Proportion with experience of tooth extraction ⁱⁱ | 1.4% | 1.8% | 2.3% | 1.8% | 2.2% |
| Proportion with dental abscess | 1.6% | 0.5% | 1.5% | 1.6% | 1.0% |
| Proportion with teeth decayed into pulp | 5.8% | 2.0% | 3.0% | 4.1% | 3.3% |
| Proportion with decay affecting incisors ⁱⁱⁱ | 3.9% | 2.0% | 2.6% | 4.6% | 5.2% |
| Proportion with high levels of plaque present on upper front teeth ^{iv} | 0.2% | 0.4% | 1.6% | 0.4% | 1.2% |

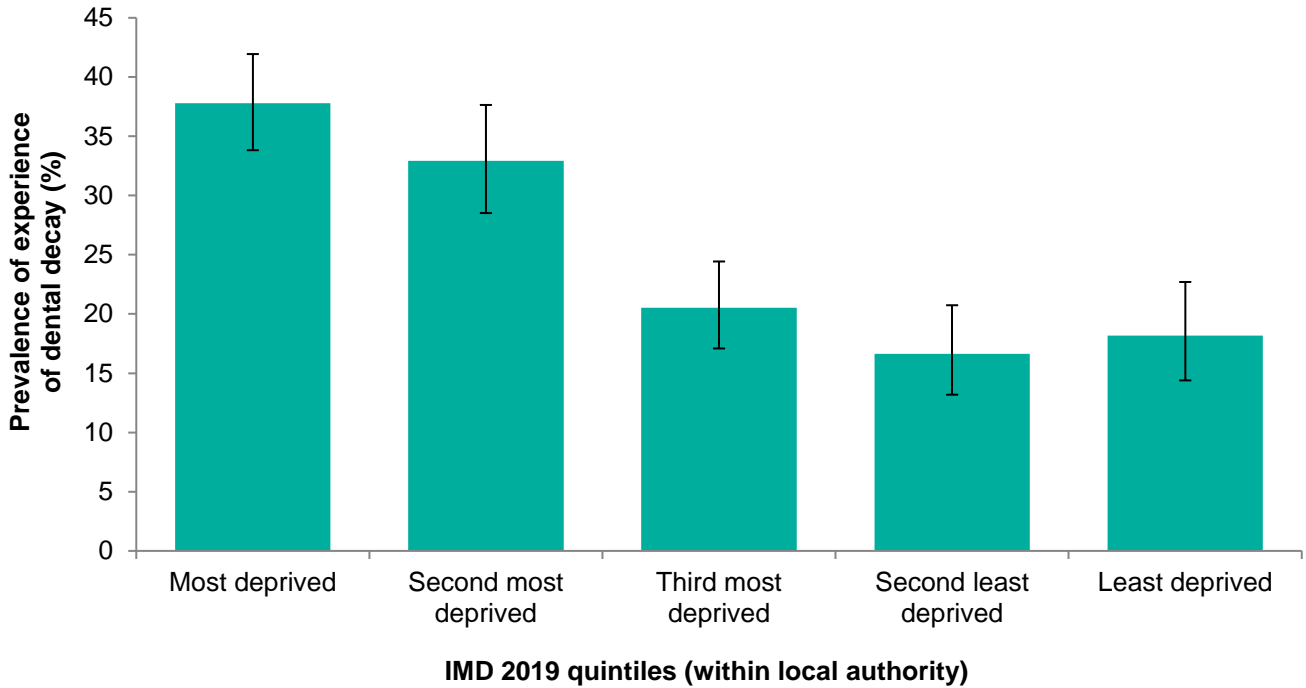
ⁱ generated by the children's services statistical neighbour benchmarking tool, the neighbour within the East Midlands has "very close" comparator characteristics and the national neighbour 1 has "extremely close" comparator characteristics³.

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.

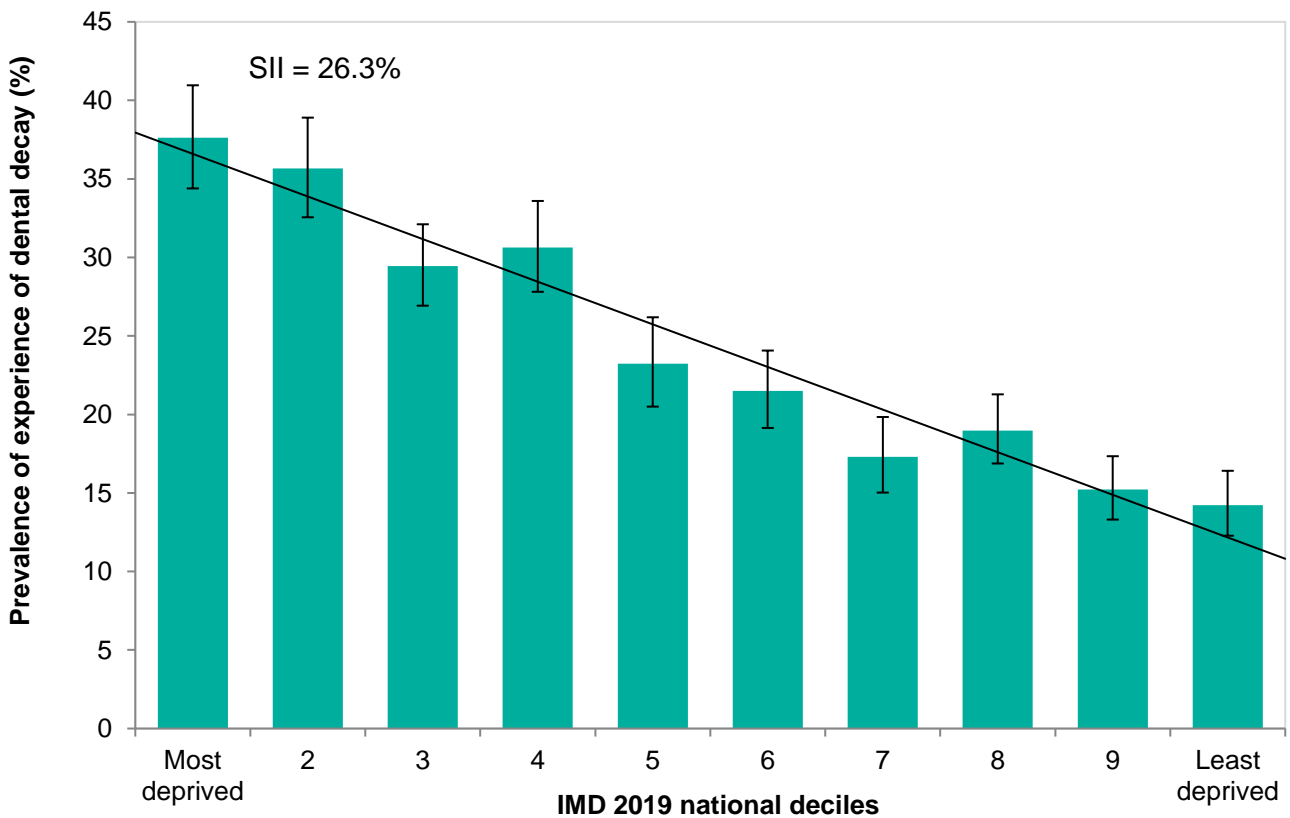
^{iv} indicative of poor tooth brushing habits.

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



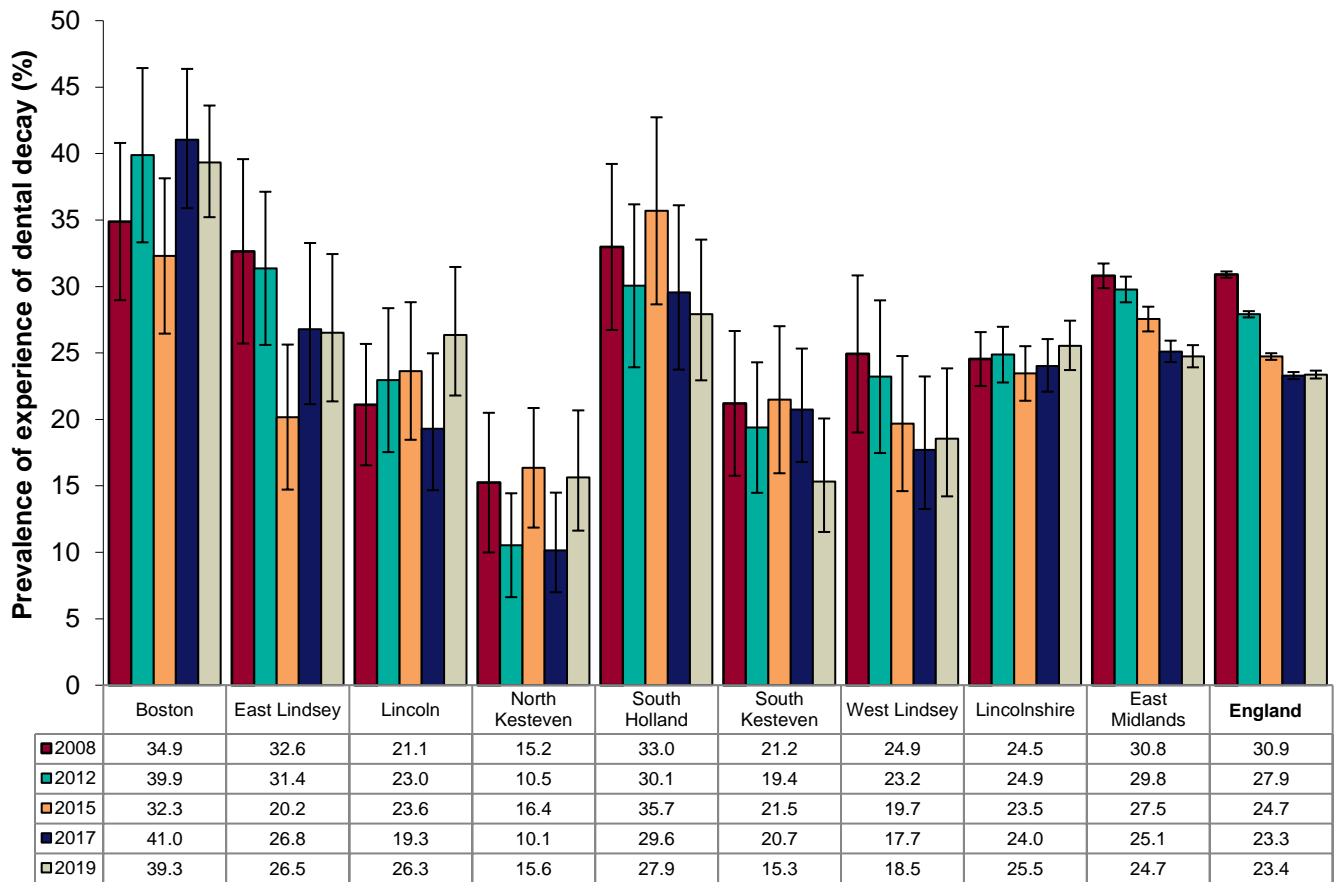
Error bars represent 95% confidence limits

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 Lincolnshire local authorities, the East Midlands and England, by year.

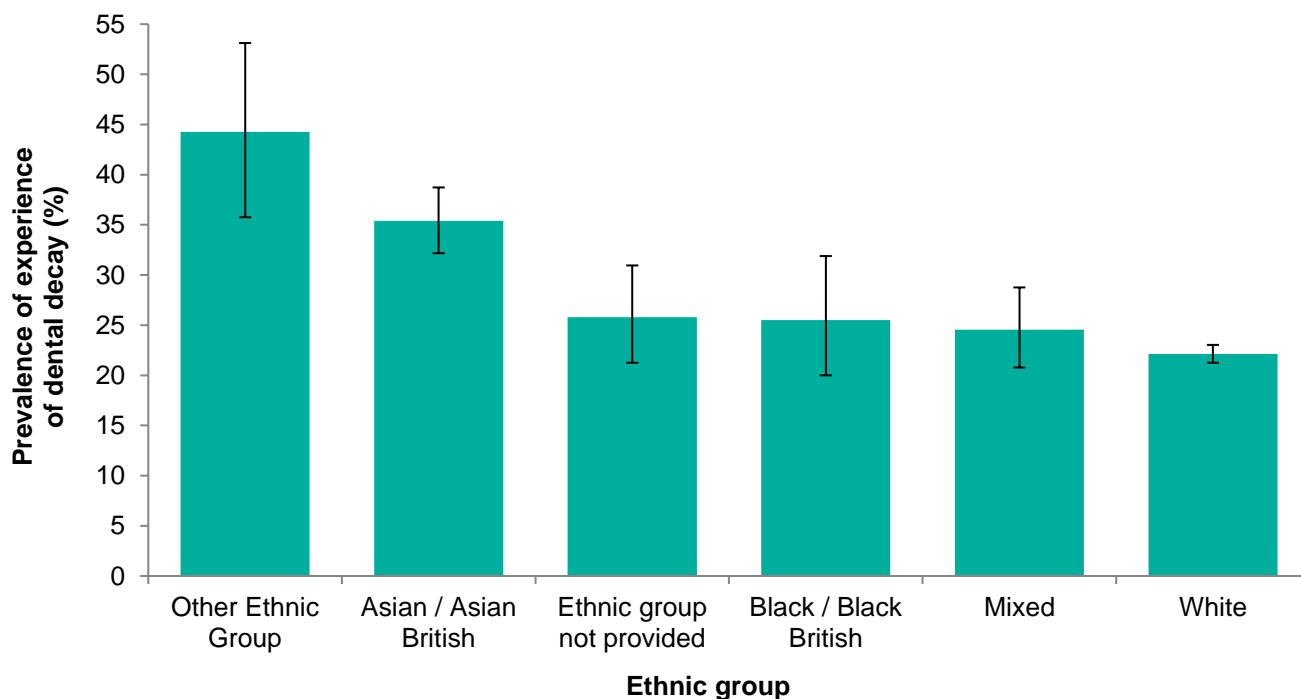


Error bars represent 95% confidence limits

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

Figure 6: Prevalence of experience of dental decay in 5-year-olds in Lincolnshire, by lower-tier local authority, 2019.

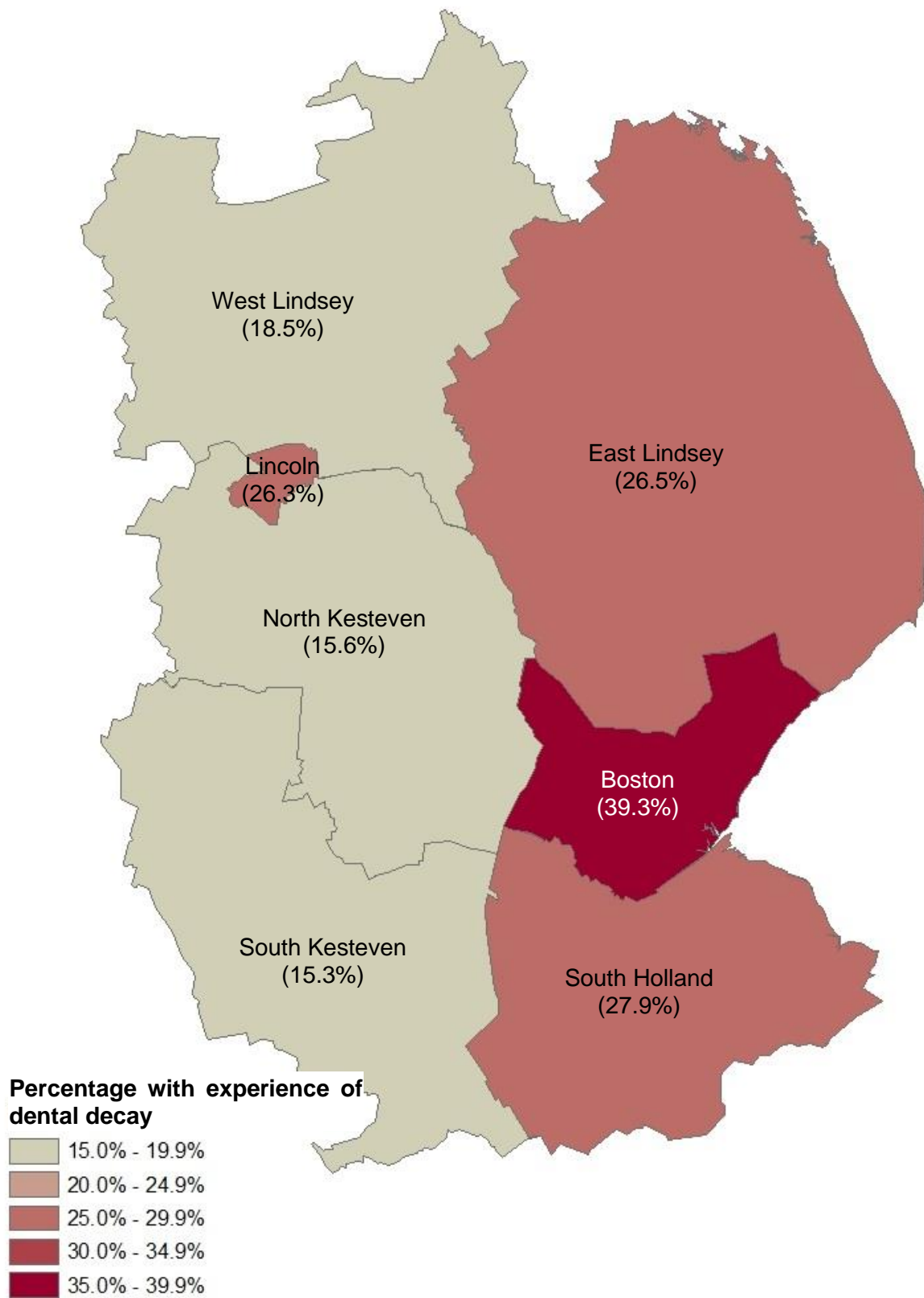


Figure 7: Prevalence of experience of dental decay in 5-year-olds in Boston, by ward, 2019.

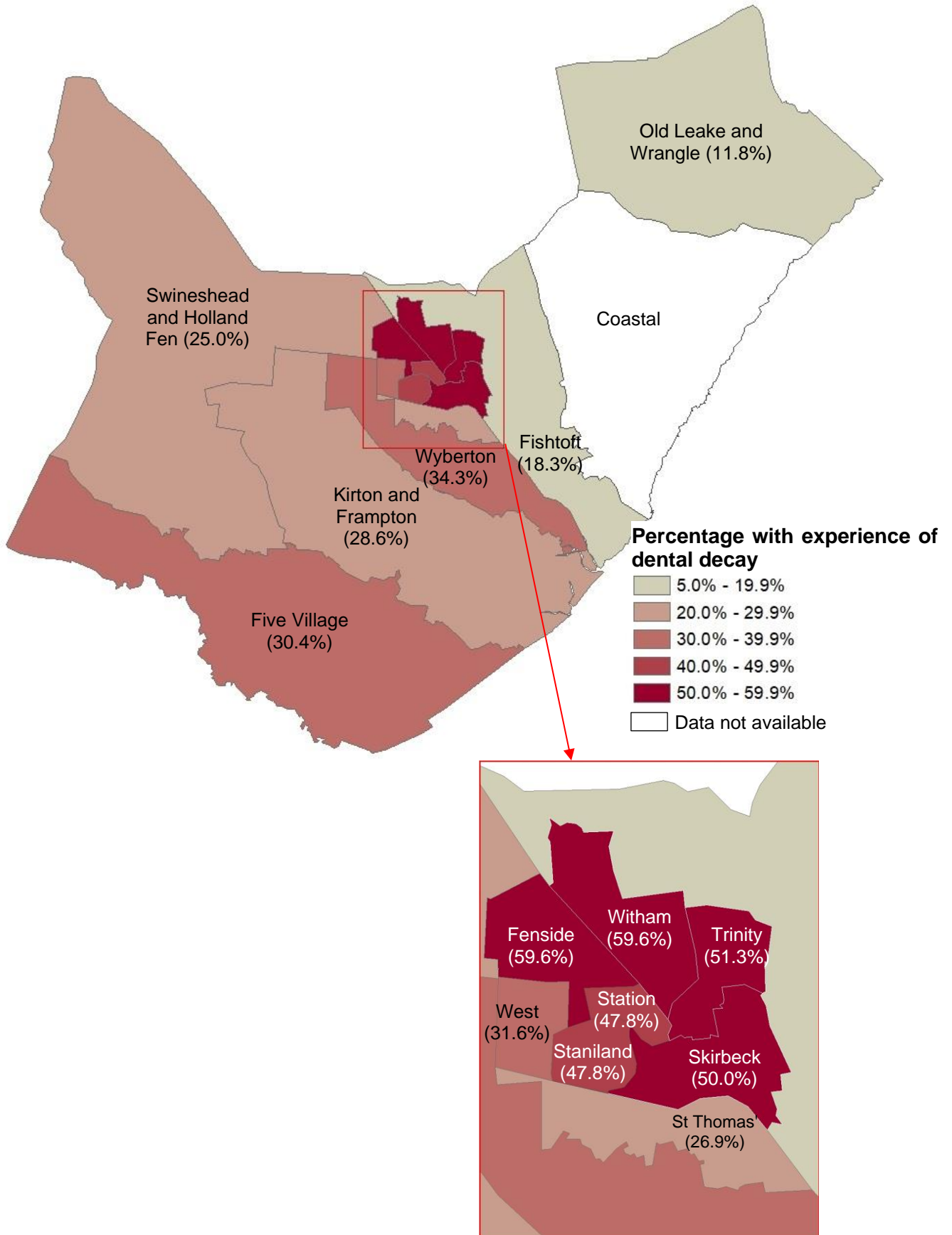


Figure 8: Prevalence of experience of dental decay in 5-year-olds in Lincoln, by ward, 2019.

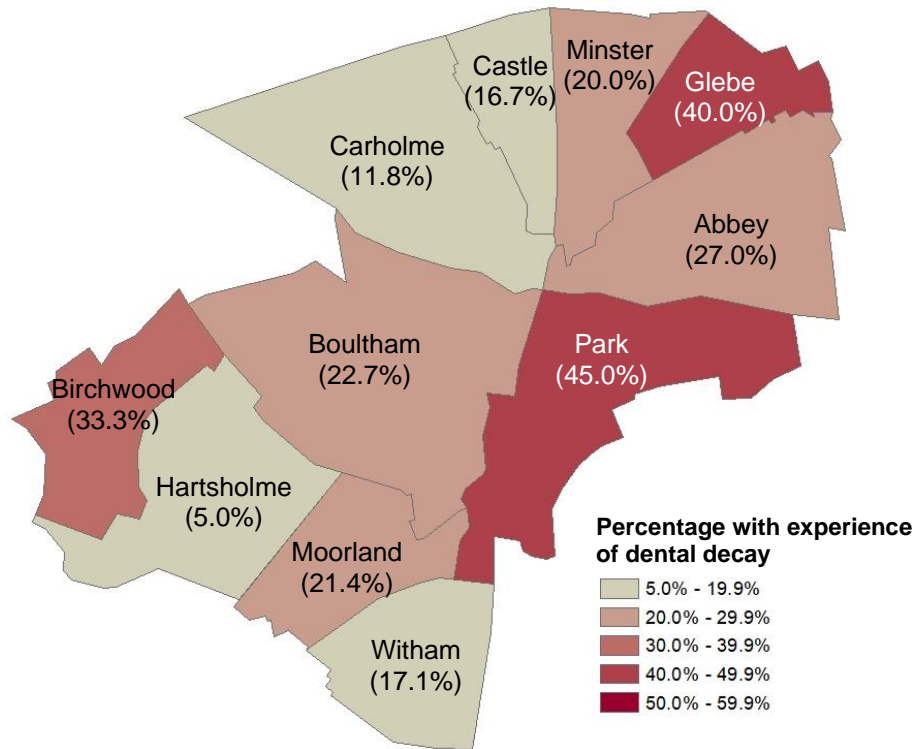


Figure 9: Prevalence of experience of dental decay in 5-year-olds in South Holland, by middle layer super output area, 2019.

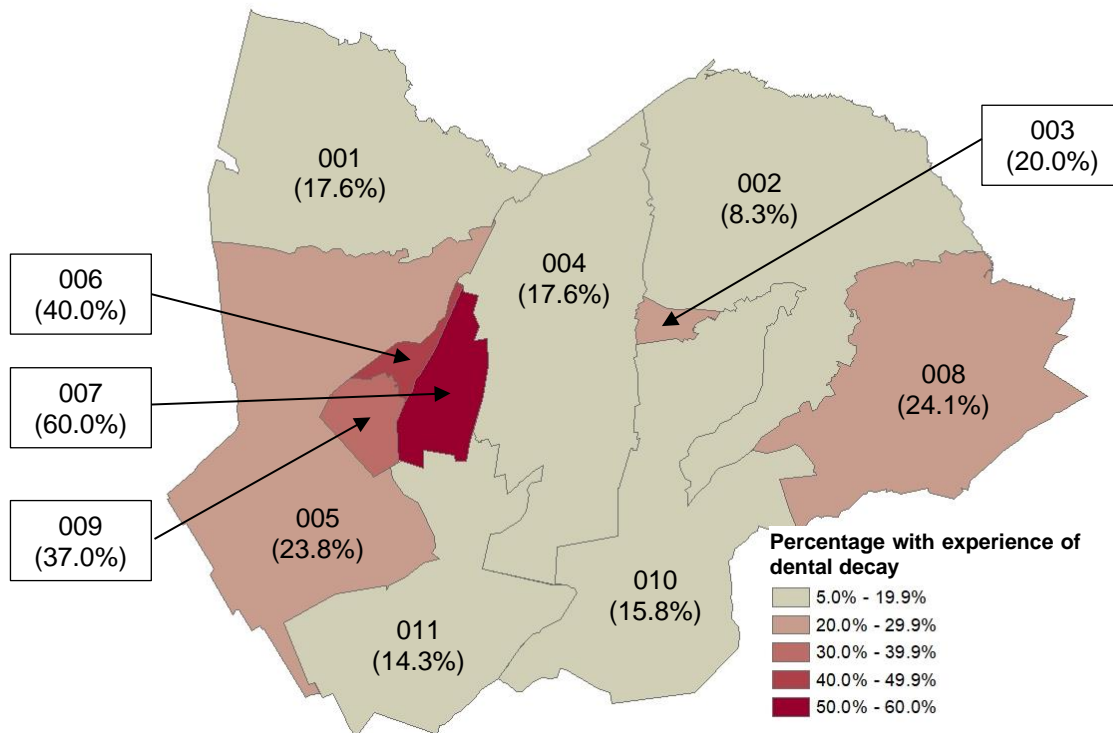


Figure 10: Prevalence of experience of dental decay in 5-year-olds in South Kesteven, by middle layer super output area, 2017.

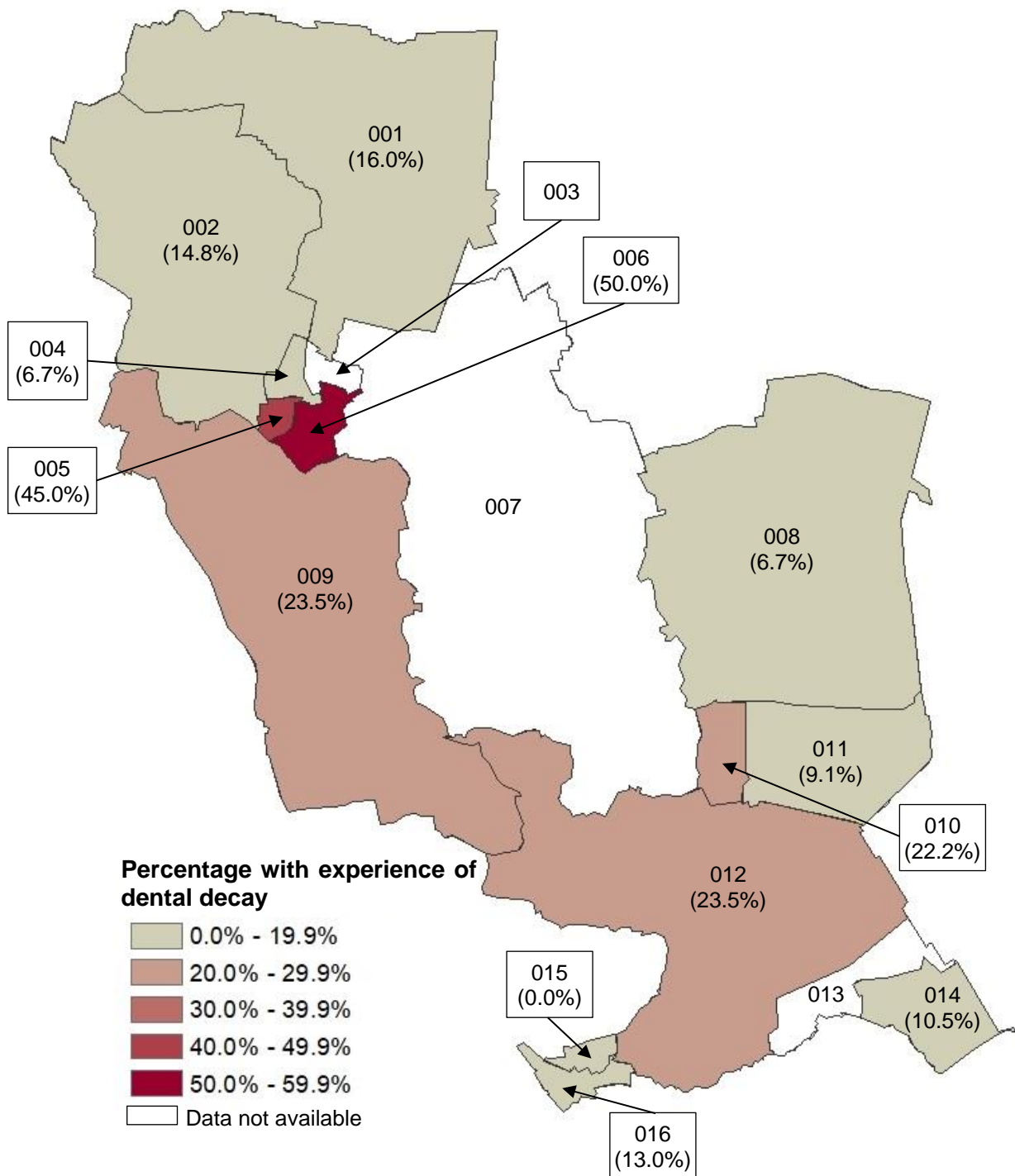


Table 4: Prevalence and severity of experience of dental decay in 5-year-olds in Lincolnshire, by lower-tier local authority.

| Lower-tier local authority | 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) |
|----------------------------|--|--|---|
| Boston | 34.9 | 1.6 (1.33 - 1.83) | 4.0 (3.55 - 4.47) |
| East Lindsey | 32.6 | 0.7 (0.52 - 0.89) | 2.7 (2.23 - 3.08) |
| Lincoln | 21.1 | 0.9 (0.70 - 1.15) | 3.5 (2.95 - 4.09) |
| North Kesteven | 15.2 | 0.4 (0.22 - 0.49) | 2.3 (1.70 - 2.83) |
| South Holland | 33.0 | 1.0 (0.74 - 1.32) | 3.7 (2.88 - 4.47) |
| South Kesteven | 21.2 | 0.5 (0.29 - 0.68) | 3.2 (2.25 - 4.07) |
| West Lindsey | 24.9 | 0.5 (0.33 - 0.68) | 2.7 (2.04 - 3.39) |

Summary

In Lincolnshire average levels of dental decay are higher than the average for England, however, within Lincolnshire there are areas where there are higher than average levels of experience of dental decay. At lower-tier local authority level, children living in Boston have the highest levels of experience of dental decay. Within Boston, the highest levels of experience of dental decay are clustered around Fenside, Skirbeck, Trinity and Witham wards.

The small sample sizes in some areas mean 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

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