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Welsh Oral Health
Information Unit

Picture of Oral Health 2026

Dental Epidemiological Inspection of School
Year One Children in Wales 2024/25



Technical report

This report presents the analysis of the NHS Wales Dental Epidemiology Programme’s national inspection of school year one children (five- and six-year-olds) in Wales conducted during the 2024-25 academic year. The inspection was co-ordinated by Oral Health Intelligence at Public Health Wales and the Welsh Oral Health Information Unit at the School of Dentistry, Cardiff University. Data were collected by the NHS Community Dental Service teams.

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Table of abbreviations

BASCD	British Association for the Study of Community Dentistry
CI	Confidence interval
d3t	Number of teeth with untreated dentinal decay in primary teeth
d3mft	Number of decayed, missing, and/or filled primary teeth
ft	Number of filled primary teeth
LHB	Local Health Board
mt	Number of primary teeth that have been extracted due to dental caries
PUFA	Evidence of open pulp, ulceration, fistula, and/or abscess
THB	Teaching Health Board
UHB	University Health Board
WHC	Welsh Health Circular
WOHIU	Welsh Oral Health Information Unit

Summary

This report presents the findings of the NHS Wales Dental Epidemiology Programme's national inspection of school year one children (typically aged 5-6 years) conducted during the 2024/25 academic year. A total of 8,526 children attending state-funded schools in Wales were examined.

The prevalence and severity of dental caries (tooth decay) among this age group continues to decline. In 2007/08, an average class of 30 children would include 14 with dental caries experience, each with an average of 4.16 affected teeth. By 2024/25 this had fallen to 8 children per class, with an average of 3.51 affected teeth. Across the population, both the prevalence and severity of dental caries has decreased since the previous inspection in 2022/23.

Dental caries can significantly impact the quality of life of children and their caregivers. Children with dental caries were more likely to report oral health-related quality of life impacts than those without. The most commonly reported impact was pain, affecting nearly one in four children (23.8%) with dental caries experience.

A clear social gradient remains in the prevalence and severity of dental caries. Children from the most deprived communities are more likely to experience dental caries and have a higher number of affected teeth. However, the gap between the most and least deprived groups, as measured by the slope index of inequality, has not changed significantly between 2007/08 and 2024/25. Since 2022/23, there have been improvements observed across all deprivation quintiles except the least deprived.

Introduction

Inspections of school year one (5 and 6-year-old) children provide detailed data on oral health need for surveillance, service planning and evaluation purposes.

The NHS Wales Dental Epidemiological Programme is the responsibility of Public Health Wales, Welsh Oral Health Information Unit (WOHIU) at Cardiff University and Local Health Boards. Welsh Government requires Public Health Wales to conduct the programme under *Welsh Health Circular (WHC) (2021) 32: Role and Provision of Dental Public Health in Wales*. All-Wales co-ordination of the programme is undertaken by the Dental Epidemiology Co-ordinator in Public Health Wales. The sampling frame, data cleaning, analysis and reporting is undertaken by the WOHIU at Cardiff University. Community Dental Services in Local Health Boards are required to conduct the data collection for the programme under *WHC (2022) 22: Role of the Community Dental Service*.

The objectives of the inspection of school year one (5 and 6-year-old) children were to:

1. Record data from a sample of school year one children in Wales during the 2024/2025 academic year
2. Obtain valid estimates of dental caries prevalence and severity in school year one (5- and 6-year-old) children using methodology which will be comparable with previous inspections.

Method

The conduct of the inspection followed guidance from the British Association for the Study of Community Dentistry (BASCD) (Pitts et al. 1997, Pine et al. 1997a, Pine et al. 1997b) according to a pre-specified protocol.

The inspection population were children in school year one (the school year in which the sixth birthday is achieved). The sampling frame were all children in Wales in school year one attending state-funded mainstream primary schools. Special educational needs schools were not included in the sampling frame. The sampling unit was Upper Super Output Areas (USOAs). Sampling followed the guidance described in Pine et al. (1997a). A stratified random sampling method was used.

Since 2006, written positive parental consent has been required to examine children during oral health inspections in Wales. This is the sixth inspection of school year one children using positive consent. Comparisons with inspections conducted in Wales prior to 2007/08 should not be made. Previous research suggests that children who are not consented to participate in dental inspections are likely to have more decay than those participating (Monaghan et al. 2011)

Data were collected by trained and calibrated clinicians employed by Community Dental Services. A visual examination method was used. Radiographs were not taken. Visually obvious decay into dentine (d3t) was the minimal clinical threshold for caries reporting, in line with the BASCD criteria (Pitts et al. 1997). Visually obvious dentinal decay is a widely accepted threshold for dental inspections; however, it is likely to be an underestimate of the true prevalence and severity of dental caries as it does not measure decay confined to the dental enamel.

Dental caries experience (d3mft) was defined as one or more teeth with visually obvious dentinal decay (d3t); a tooth judged to have been extracted due to caries (mt); or a tooth with a restoration (ft). The presence or absence of pathology due to dental caries was recorded using the PUFA-index as described by Monse et al. (2010). This records visible pulpal involvement (p), ulceration caused by dislocated tooth fragments (u), fistula (f) and abscess (a) associated with carious teeth.

Oral health-related quality of life of children and their caregivers was recorded using the Early Childhood Oral Health Impact Scale (ECOHIS) (Pahel et al. 2007) which was completed by a parent or carer (see Appendix 1). A positive impact was recorded if the parent/carer had responded 'occasionally', 'often', or 'very often' to an ECOHIS domain and negative if they had responded 'never' or 'hardly ever'.

Data were collected using Microsoft Access. Data were collated, checked and cleaned. Welsh Index of Multiple Deprivation (WIMD) 2019 ranks, the official measure of relative deprivation for small areas in Wales, were assigned using school postcode as a proxy for residential location for the examined children. Data were weighted using small area populations obtained from Local Education Authorities.

Weighted data were analysed according to a pre-determined statistical analysis plan. The 95% confidence intervals applied a finite population correction using STATA (version 18). Error bars indicate 95% confidence limits on figures in this report. Confidence intervals were used to

assess statistical significance. Comparisons are made, where feasible, with previous inspections of school year one cohorts in Wales which employed the same methodology.

In the interpretation of these comparisons, particularly those presenting trends at Local Health Board level, readers should be cognisant of the Bridgend County Borough Council area change which occurred on 1st April 2019 and affects the following health boards: Cwm Taf University Health Board (UHB) (pre-1st April 2019); Abertawe Bro Morgannwg UHB (pre-1st April 2019); Cwm Taf Morgannwg UHB (post-1st April 2019) and Swansea Bay UHB (post-1st April 2019) (see Appendix 2). In addition, in the previous school year one inspection (2022/23), data was returned from two of the three Unitary Authorities comprising Hywel Dda University Health Board (Carmarthenshire and Pembrokeshire). This report presents data from all three LHBs (Appendix 3).

Results

Participation

A total of 8,526 children from 655 state-maintained mainstream schools were examined during the inspection (Table 1). This represents 27.4% of the total school year one population in mainstream state-maintained schools in Wales in 2024/25. In total, 7,988 ECOHIS questionnaires were completed, representing 93.7% of the sample for whom clinical data were collected.

Local Health Board	Estimated school year one population	Number of schools visited	No. of children sampled	No. of examinations	Proportion of sampled children for whom an examination was completed
Aneurin Bevan University Health Board	6355	101	2567	1761	68.6%
Betsi Cadwaladr University Health Board	6561	165	2924	1993	68.2%
Cardiff and Vale University Health Board	5102	84	1730	913	52.8%
Cwm Taf Morgannwg University Health Board	4526	95	1981	1227	61.9%
Hywel Dda University Health Board	3486	91	1632	991	60.7%
Powys Teaching Health Board	1265	32	568	422	74.3%
Swansea Bay University Health Board	3843	87	1856	1219	65.7%
TOTAL	31138	655	13258	8526	64.3%

Table 1: Summary of inspection population, number of schools visited, sample size and number of examinations undertaken.

Five Unitary Authorities (Isle of Anglesey, Powys, Caerphilly, Monmouthshire, and Gwynedd) met the BASCD quality mark of an examination rate of 70% or over. A further ten Unitary Authorities fell just short of the quality mark but achieved rates of around 65% and over (Conwy, Denbighshire, Blaenau Gwent, Torfaen, Neath Port Talbot, Bridgend, Wrexham, Swansea, Newport, and Flintshire). The remaining seven Unitary Authorities achieved examination rates of between 64% (Pembrokeshire) and 50.9% (Cardiff) (Figure 1).

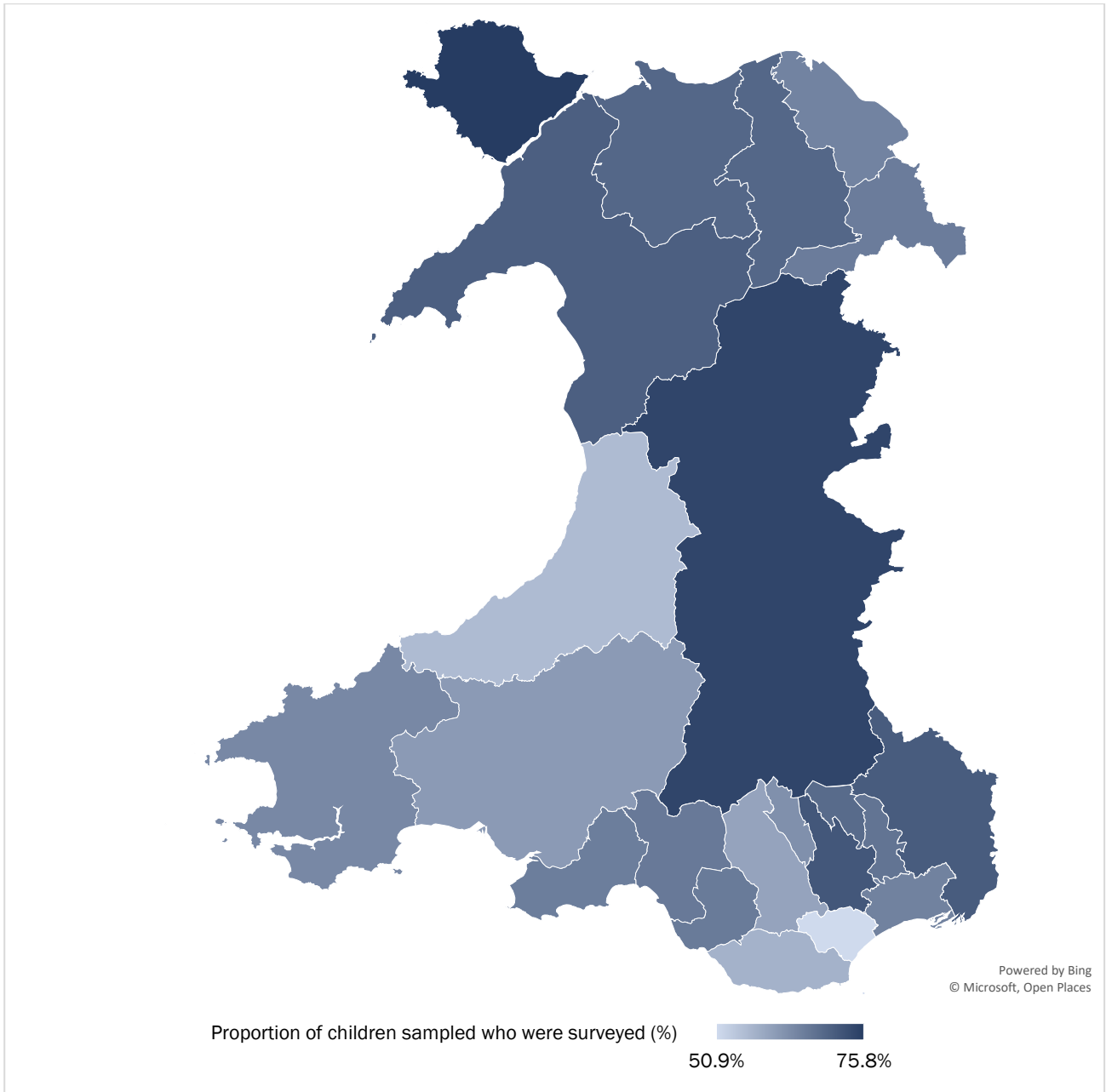


Figure 1: A choropleth of the proportion of sampled children for whom an examination was completed by Unitary Authority.

The deprivation profile of the children examined is presented in Table 2.

Local Health Board	Welsh Index of Multiple Deprivation (WIMD) 2019 Distribution of the examined population ¹ (n=8,526)				
	Most deprived quintile	Second most deprived quintile	Middle deprived quintile	Second least deprived quintile	Least deprived quintile
Aneurin Bevan UHB	502	376	383	323	177
Betsi Cadwaladr UHB	215	310	568	516	384
Cardiff and Vale UHB	115	84	123	211	380
Cwm Taf Morgannwg UHB	250	413	155	226	183
Hywel Dda UHB	52	193	255	455	36
Powys THB	63	40	84	149	86
Swansea Bay UHB	341	272	19	222	265
TOTAL	1,538	1,688	1,687	2,102	1,511

¹ WIMD (2019) quintile was based on the postcode of the school where the child was inspected, not the home postcode of the child

Table 2: Summary of the Welsh Index of Multiple Deprivation (WIMD) 2019 distribution of the examined population.

Prevalence of dental caries experience

In this inspection 27.2% (95% CI 26.3% to 28.0%) of children had dental caries experience (%d3mft>0).

The prevalence of dental caries experience among school year one children in Wales has been declining since 2007/08. Between 2022/23 and 2024/25, the prevalence decreased by 5.2 percentage points, representing a 16.2% reduction. This difference is statistically significant (Figure 2, [Supplementary table 1](#)).

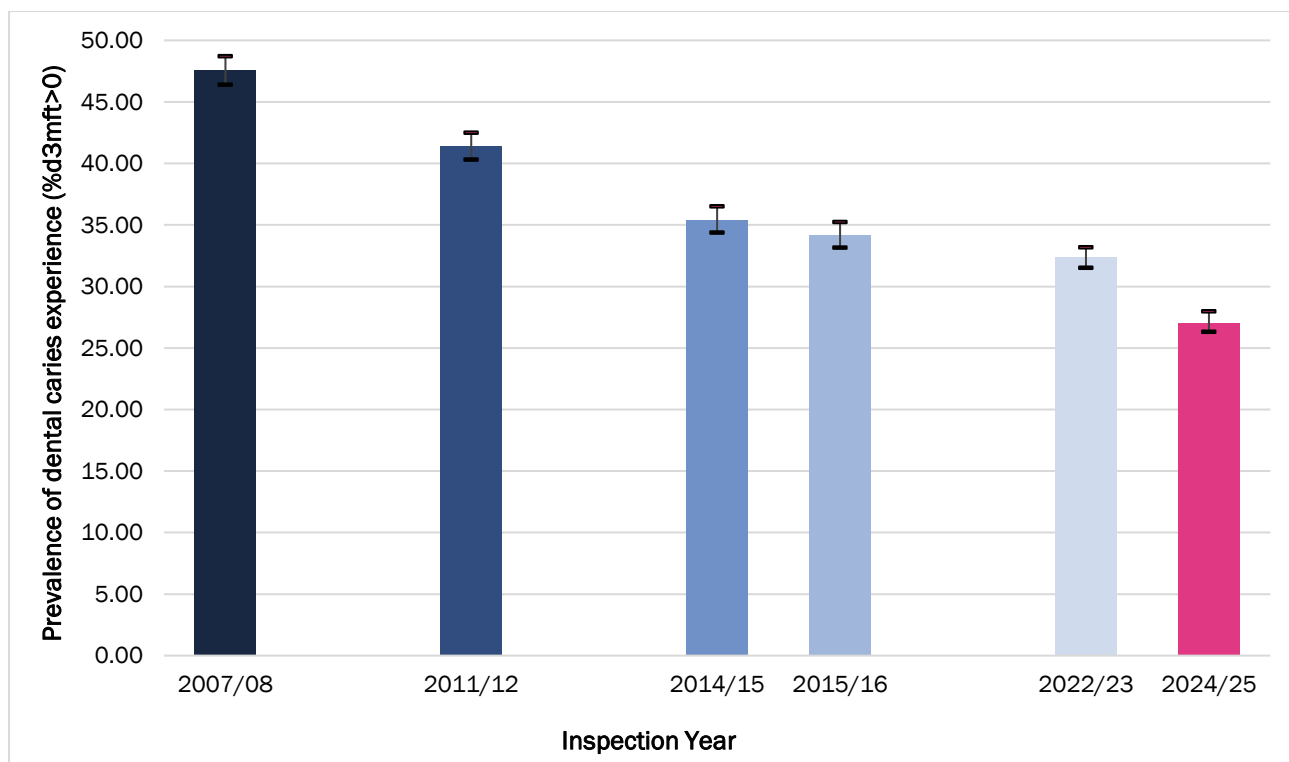


Figure 2: Prevalence of dental caries experience (%d3mft>0) in school year one children in Wales 2007/08 to 2024/25

Severity of dental caries experience

Reporting dental caries experience (the mean number of d3mft) can be done in two ways (1) on a whole population basis (2) only affected children (d3mft>0).

On a whole population basis, the severity of dental caries experience among school year one children in Wales has been declining since 2007/08. Since the last inspection in 2022/23 the average number of teeth affected by dental caries (d3mft) has decreased from 1.11 (95% CI 1.07 to 1.15) to 0.95 (95% 0.91 to 0.99) in this inspection (blue bars Figure 3, [Supplementary table 2](#)). This represents a reduction of 0.16 (95% CI 0.08 to 0.24) between the 2022/23 and 2024/25 inspections, an absolute reduction of 14.4%. This change is statistically significant.

Among children with experience of dental caries (d3mft>0), there has been a reduction in the number of teeth affected (d3mft) between 2007/08 and 2024/25. However, no significant difference was observed between the 2022/23 and 2024/25 inspections in this subgroup (green bars, Figure 3, [Supplementary table 2](#))

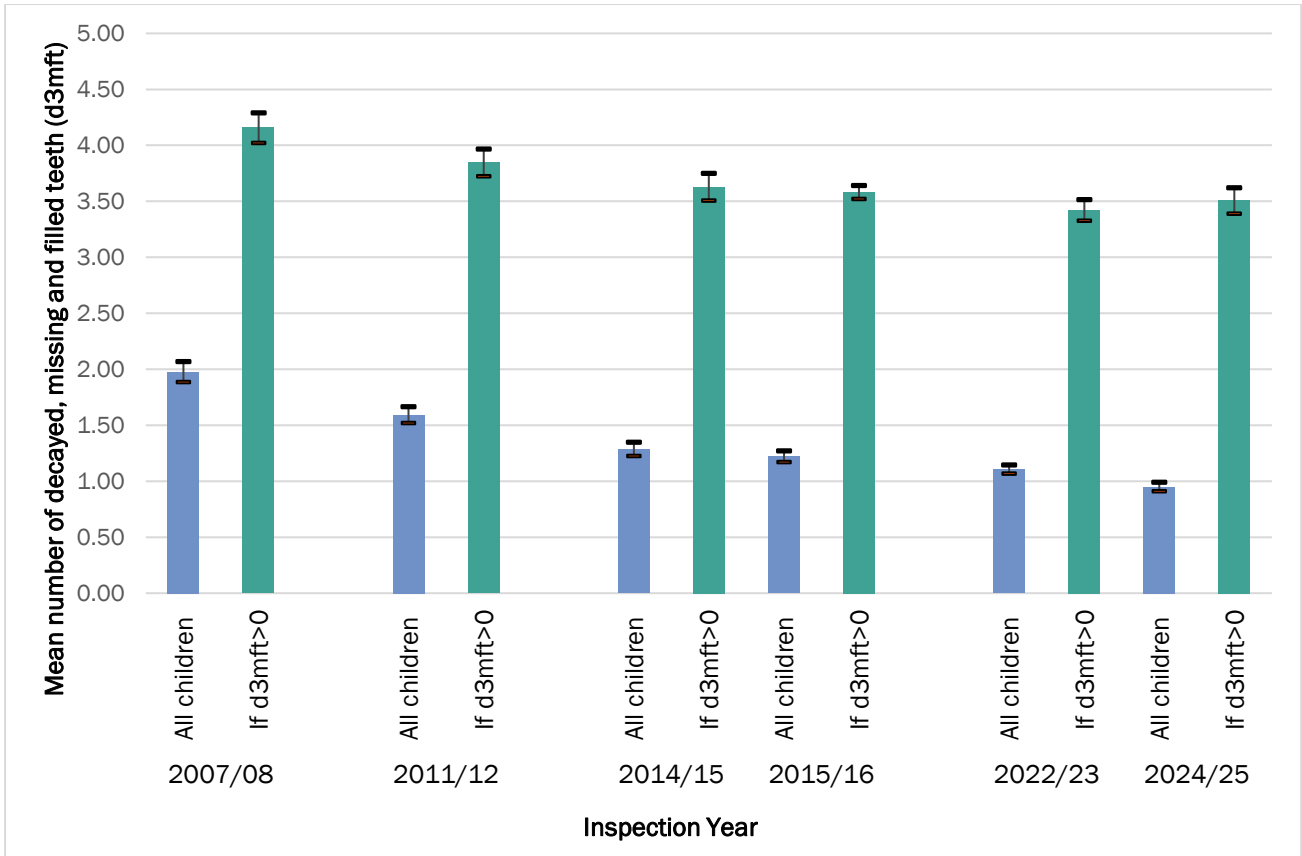


Figure 3: Mean number of teeth with dental caries experience (d3mft) and the mean number of teeth affected in those with dental caries experience (d3mft if d3mft>0) in school year one children 2007/08 to 2024/25

Untreated dental caries

The largest component of dental caries experience is untreated dental caries (d3t).

The prevalence of untreated dental caries (%d3mft>0) has decreased since 2007/08. Since the last inspection in 2022/23 the prevalence decreased by 5.5 percentage points, representing a 18.8% reduction. This change is statistically significant.

However, the average number of teeth with untreated caries in those affected by disease (d3mft>0) remains high (3.07 (95% 2.97 to 3.18) (Figure 4 and [Supplementary table 3](#)),

Inspection year	Prevalence of untreated dental caries (%d3t>0) (%)		
	Mean	95% CI Low	95% CI High
2007/08	42.5	41.4	43.7
2011/12	36.5	35.4	37.5
2014/15	30.0	29.0	31.0
2015/16	28.2	27.3	29.2
2022/23	29.3	28.5	30.1
2024/25	23.8	22.9	24.5

Table 3: Prevalence of untreated dental caries (%d3t>0) 2007/08 to 2024/25 in school year one children

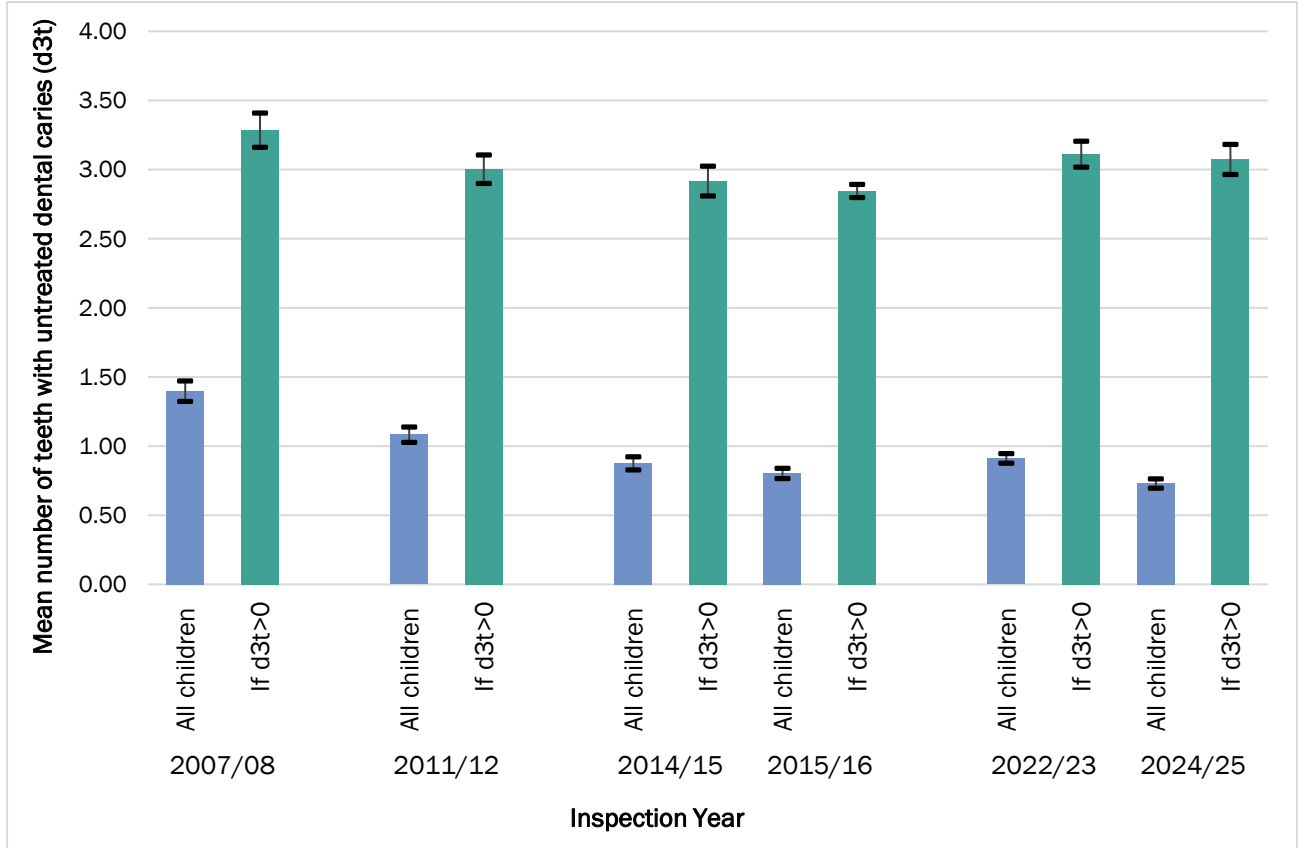


Figure 4: Mean number of teeth with untreated dental caries (d3t) and the mean number of teeth affected in those with untreated dental caries (d3t if d3t>0) in school year one children 2007/08 to 2024/25

Consequences of untreated dental caries

The presence or absence of pathology due to dental caries was recorded using the PUFA-index (Monse et al. 2010). The prevalence of PUFA signs across Wales was 2.6% (95% CI 2.3% to 2.9%).

Impact of dental caries experience

Almost a fifth of parents/carers (17.7%) reported that their child's oral health had impacted on the quality-of-life impact of their child or family. In children with dental caries experience (d3mft>0), over a third of parents/carers (38.7%) reported an impact. The most common oral health-related quality of life impact was pain (10.0% of all children and 23.8% of those with dental caries experience). These are similar to the findings of the 2022/23 inspection.

ECOHIS oral health-related quality of life impacts		Prevalence of one or more oral health-related quality of life impacts over the child's life (%)		
		All children (%) (n=7,988)	In those without dental caries experience (d3mft=0) (%) (n=5,839)	In those with dental caries experience (d3mft>0) (%) (n=2,149)
Child impacts	Pain	10.0	5.2	23.8
	Difficulty drinking hot or cold beverages	1.8	0.6	5.2
	Difficulty eating some foods	3.9	1.2	11.5
	Difficulty pronouncing any words	1.9	1.2	3.7
	Missed preschool, day-care or school	2.1	0.6	6.5
	Had trouble sleeping	2.2	0.8	6.4
	Been irritable or frustrated	3.0	1.2	8.2
	Avoided smiling or laughing	0.9	0.5	2.1
	Avoided talking	0.4	0.2	1.2
Family impacts	Been upset	4.0	1.4	11.6
	Felt guilty	5.8	2.2	16.4
	Taken time off from work	3.0	1.2	8.0
	Financial impact on the family	1.1	0.4	3.4
ANY DOMAIN		17.7	10.1	38.7

Table 4: Prevalence of ECOHIS oral health-related quality of life impacts in all children and just those with dental caries experience (d3mft>0) in school year one children in 2024/25

Deprivation and dental caries experience

There is a clear social gradient in the prevalence and severity of dental caries experience amongst school year one children in Wales. Individuals from the most deprived communities were more likely to experience dental caries (Figure 5, [Supplementary table 4](#)) and also have more teeth affected (Figures 5 and 6, [Supplementary table 5](#) and [Supplementary table 6](#)).

Since the 2022/23 survey the prevalence of dental caries has fallen in the four most deprived WIMD 2019 quintiles. No reduction was observed in the least deprived quintile (Figure 5, [Supplementary table 4](#)). While the prevalence of untreated caries is lower in less deprived groups, the severity among those affected remains high across all quintiles (Figure 7).

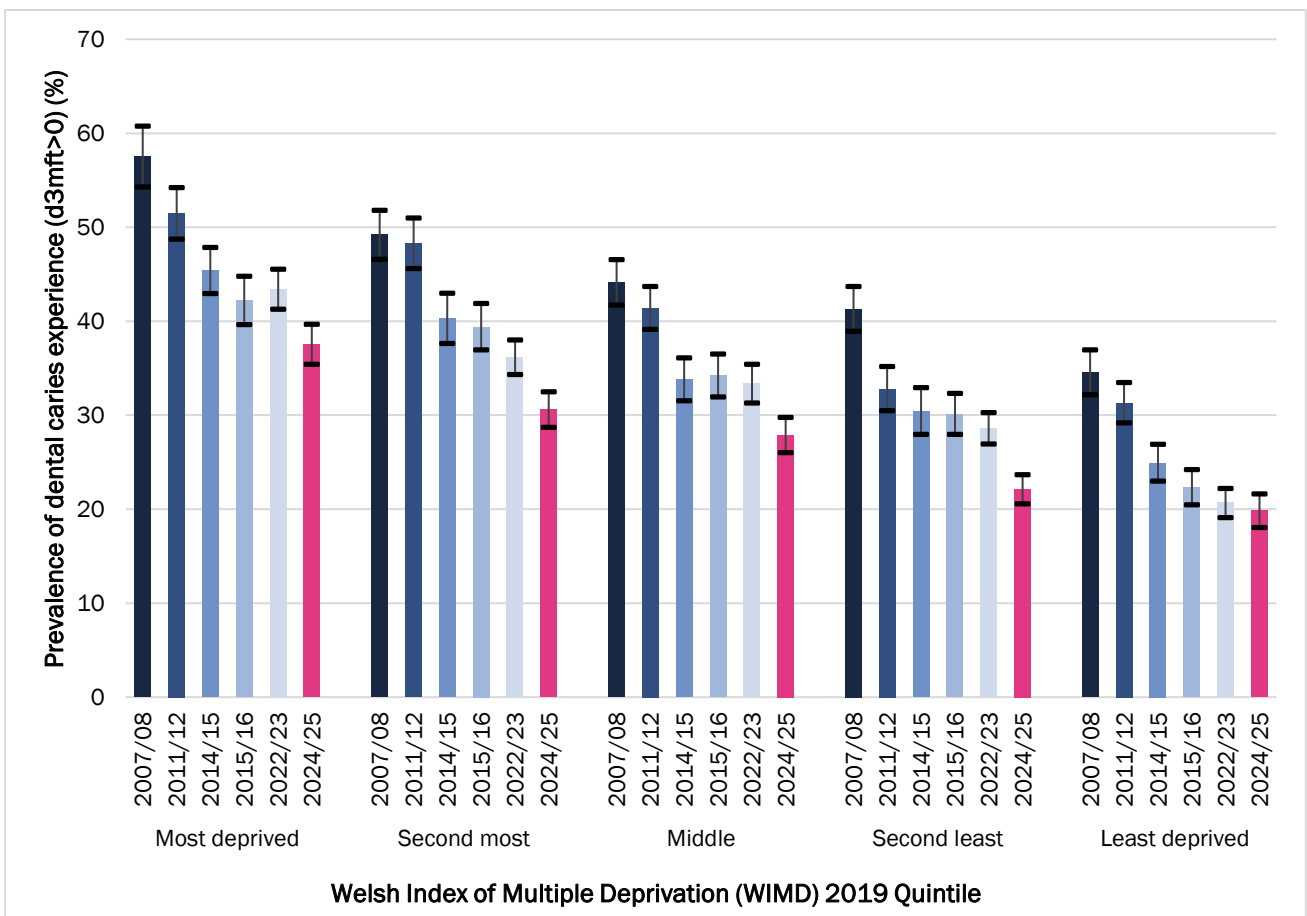


Figure 5: Prevalence of dental caries experience (%d3mft>0) by Welsh Index of Multiple Deprivation (WIMD) 2019 quintile in school year one children 2007/08 to 2024/25

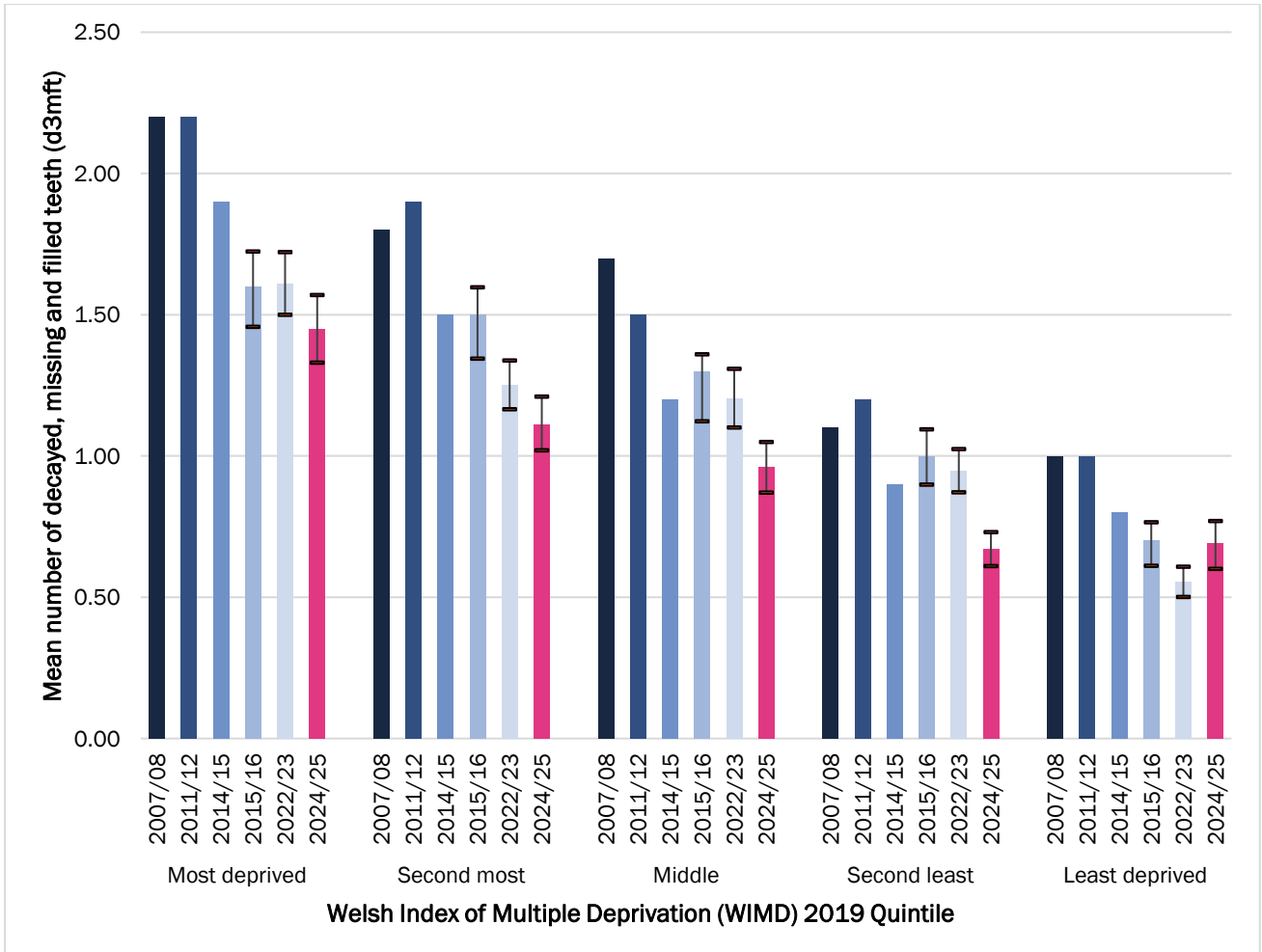


Figure 6: Mean number of decayed, missing and filled teeth (d3mft) by Welsh Index of Multiple Deprivation (WIMD) 2019 quintile in school year one children 2007/08 to 2024/25.¹

¹ Owing to historic differences in reporting, confidence interval data is not available for the first three cohorts

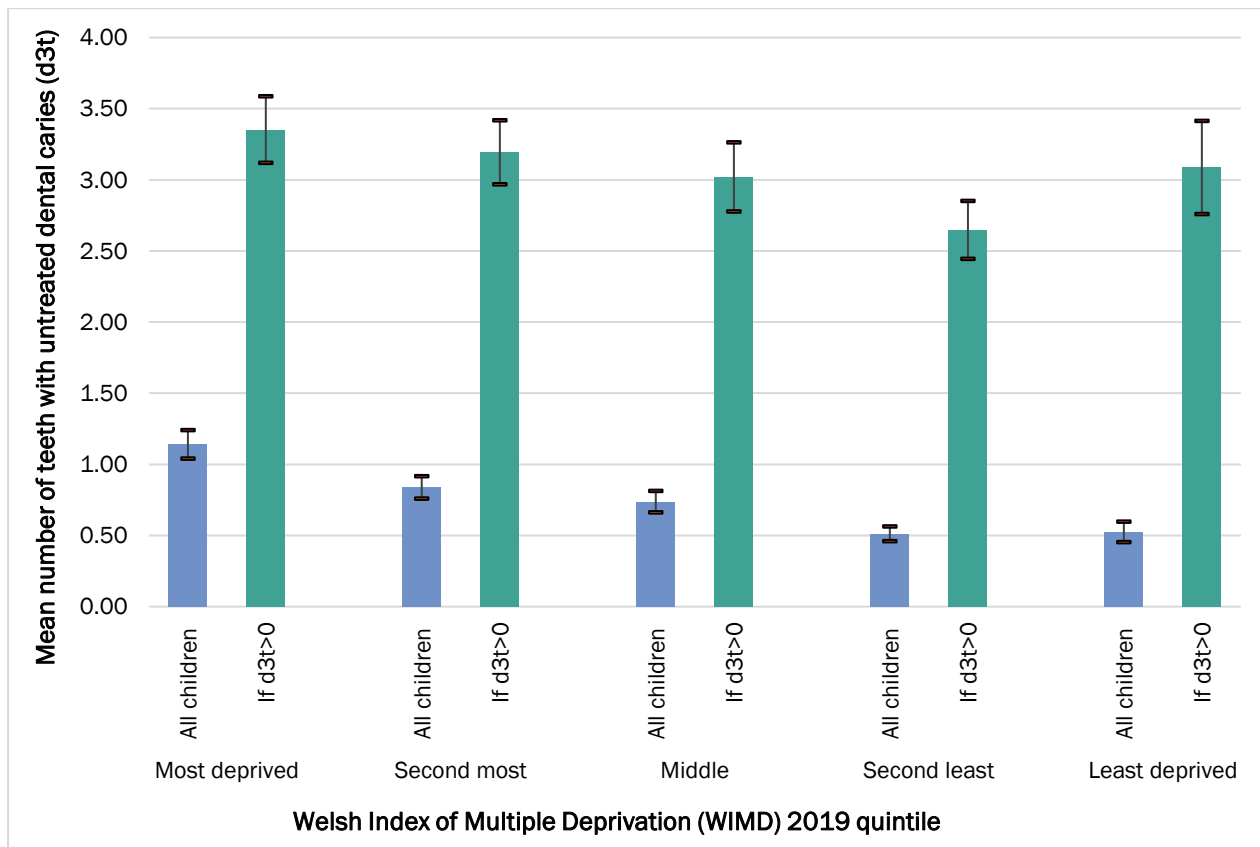


Figure 7: Mean number of teeth with untreated dental caries (d3t) and the mean number of affected teeth in those with untreated dental caries (d3t if d3t > 0) in by WIMD (2019) quintile in school year one children 2024/25

The difference in the prevalence of a disease or condition between people living in the most deprived and the least deprived areas is measured by the slope index of inequality. This is a measure of absolute inequalities. The slope index of inequality of dental caries prevalence has not significantly changed between 2007/08 and 2024/25 (Figure 8, [Supplementary table 7](#)).

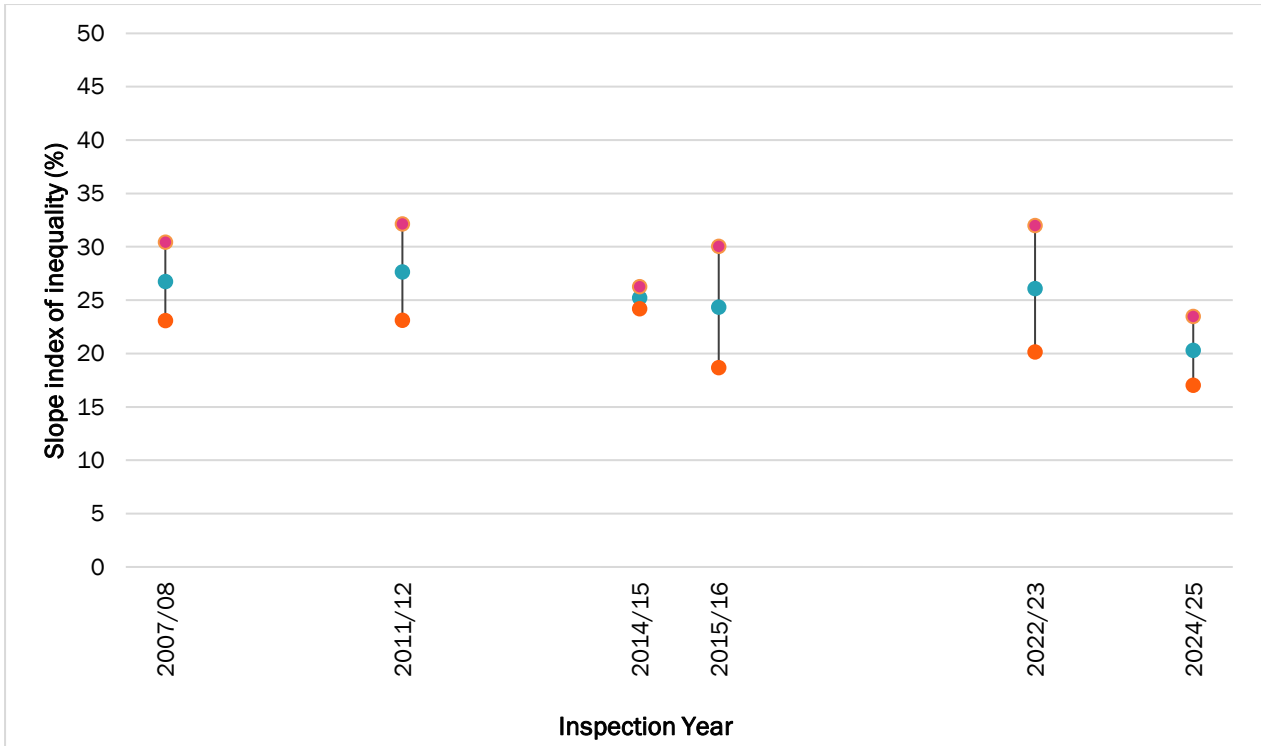


Figure 8: Slope index of inequality in the prevalence of dental caries experience in school year one children in Wales, 2007/08 to 2024/25

The social gradient was also apparent in oral health-related quality of life measures. Families in the in the most deprived WIMD 2019 quintiles were more likely to report one or more oral-health related quality of life impacts on their child or family than those in the least deprived areas. However, when only children with dental caries experience ($d3mft > 0$) were considered, the prevalence of one or more oral health-related quality of life impacts was the same across the social spectrum (Figure 9, [Supplementary table 8](#) & [Supplementary table 9](#)).

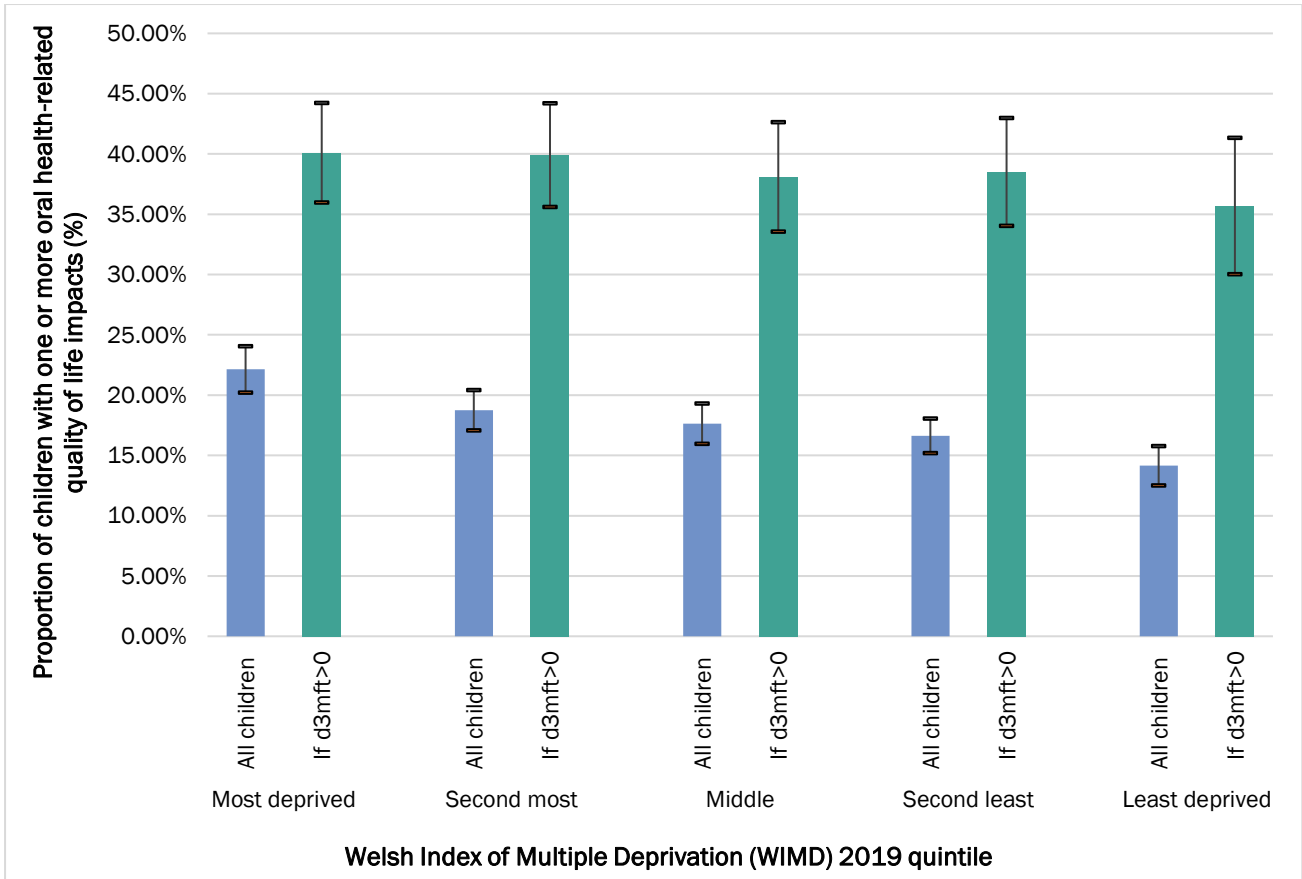


Figure 9: Proportion of children with one or more oral health-related quality of life impacts in all children and those with dental caries experience (d3mft>0), by WIMD (2019) quintile 2024/25

Management of dental caries

Both the mean number of missing (mt) and the mean number of filled (ft) teeth and proportion of mt and ft as a proportion of all teeth with dental caries experience have decreased between 2015/16 and 2024/25 inspections (Figure 10, [Supplementary table 10](#)).

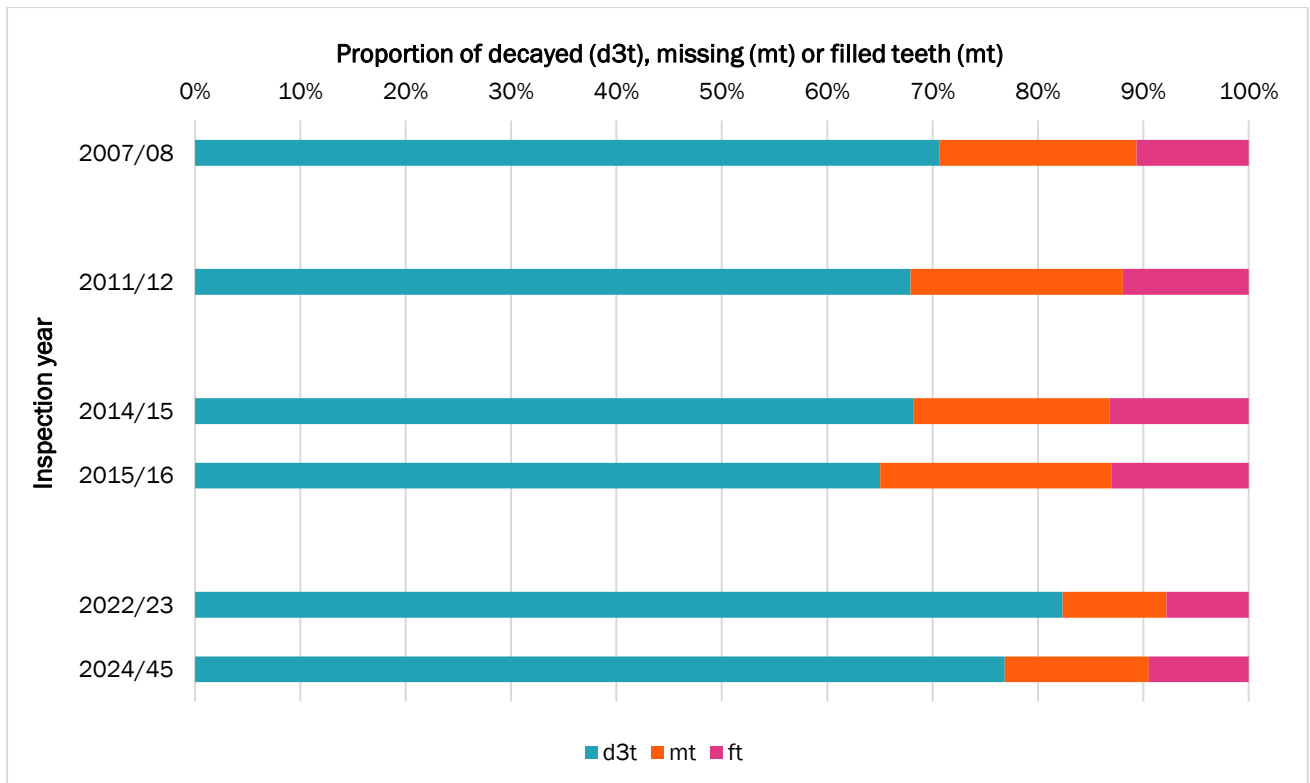


Figure 10: Proportion of teeth with caries experience which are decayed (d3t), missing (mt) and filled teeth (ft) in school year one children 2007/08 to 2024/25

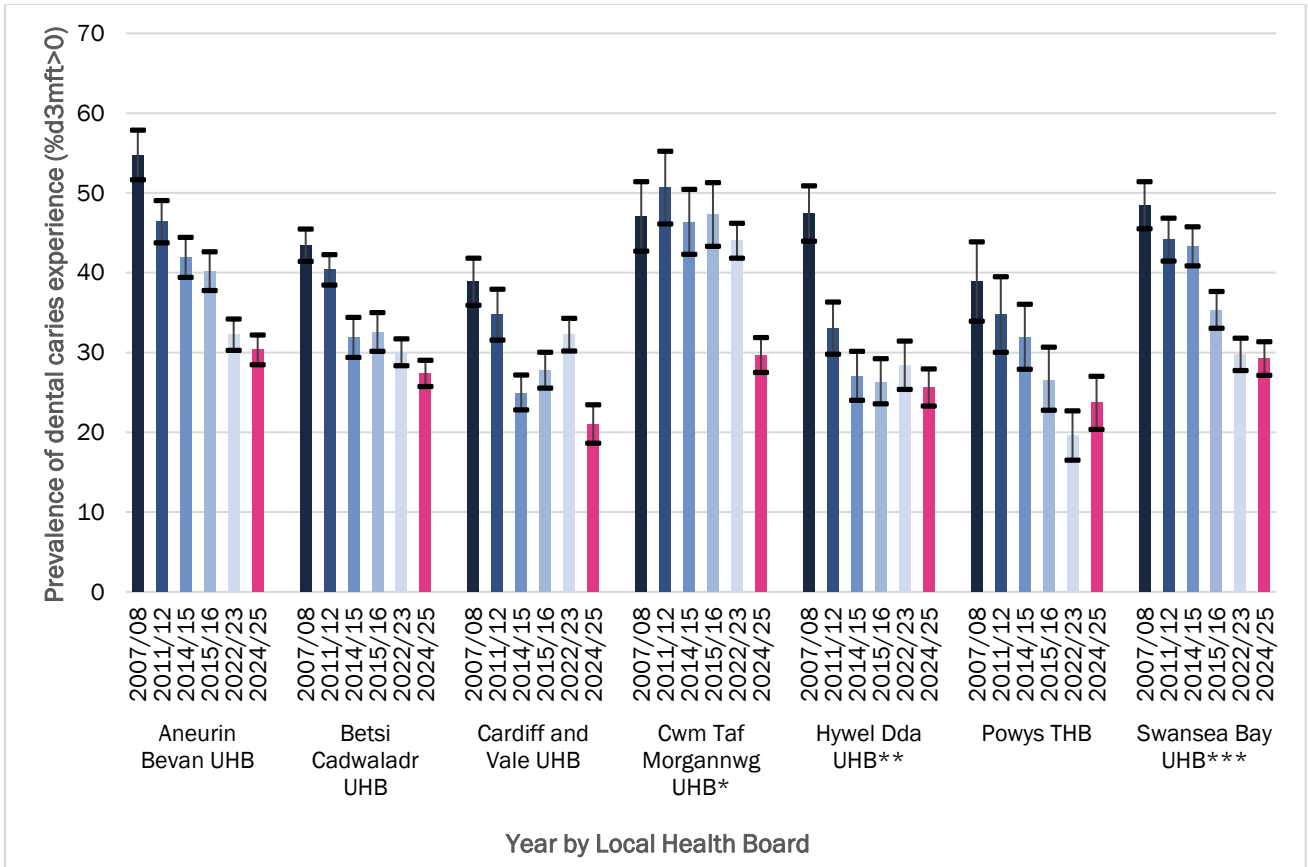
Regional differences in dental caries experience

Prevalence of dental caries experience

The prevalence of dental caries experience (%d3mft>0) ranges from 21.0% (95% CI 18.6% to 23.5%) in Cardiff and Vale UHB to 30.3% (95% CI 28.5% to 32.2%) in Aneurin Bevan UHB (Figure 11, [Supplementary table 11](#)).

Since 2022/23 there has been a reduction in the prevalence of disease in two Local Health Boards (Cardiff and Vale UHB, Cwm Taf Morgannwg UHB) and no change in four (Aneurin Bevan UHB, Betsi Cadwaladr UHB, Powys THB, Swansea Bay UHB). Due to missing data from the Ceredigion Unitary Authority area in 2022/23, no comparisons can be made for Hywel Dda UHB.

At a Unitary Authority-level, dental caries prevalence (%d3mft>0) ranges 20.2% (95% CI 16.8% to 23.6%) in Conwy to 36.0% (95% CI 30.8% to 41.2%) in Blaenau Gwent (Figure 12, [Supplementary table 12](#)).



* Cwm Taf UHB prior to 1st April 2019

** Data from Carmarthenshire and Pembrokeshire only in 2022/23

*** Abertawe Bro Morgannwg UHB prior to 1st April 2019

Figure 11: Prevalence of dental caries experience (%d3mft>0) in school year one children by Local Health Board, 2007/08 to 2024/25

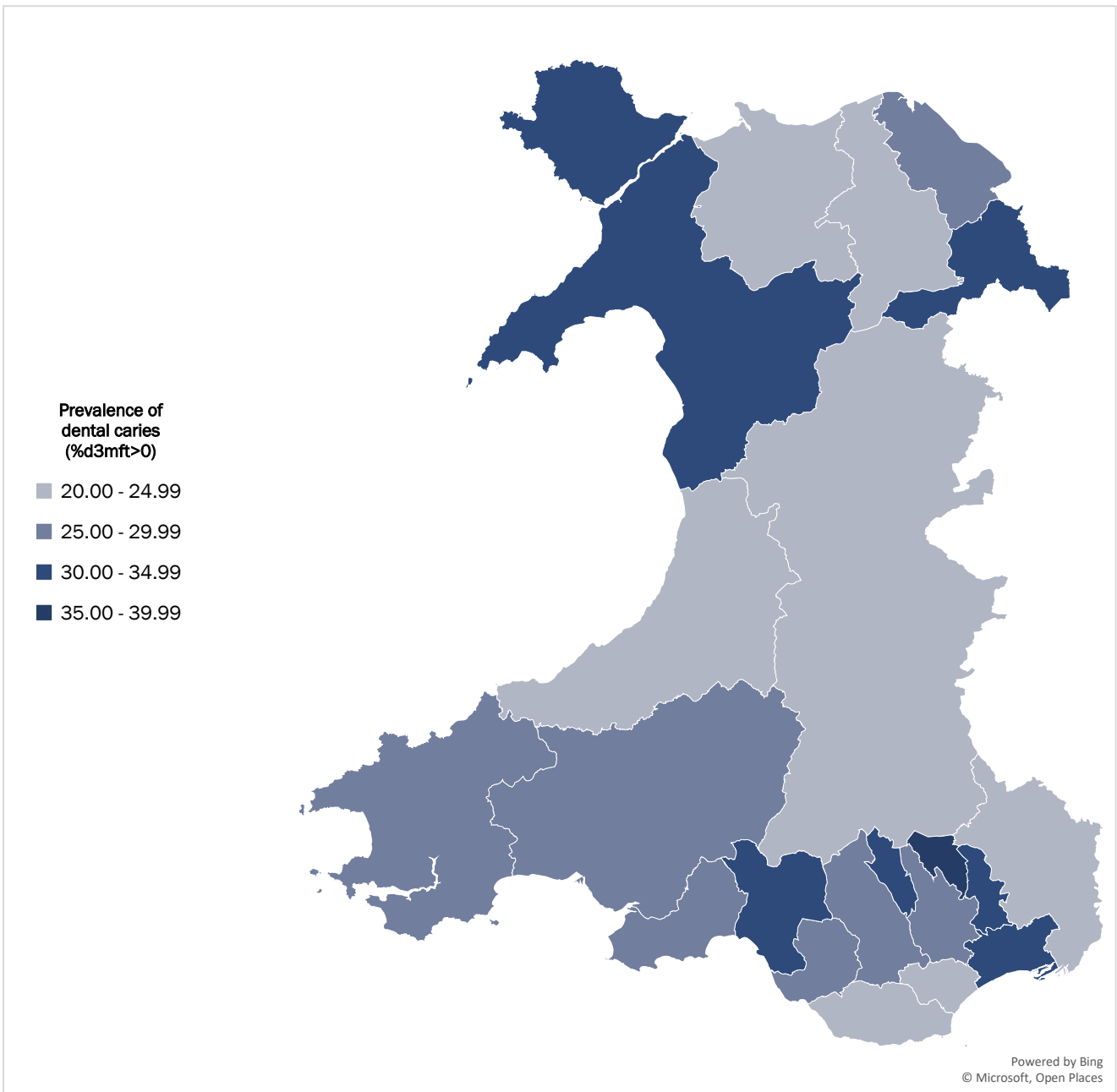


Figure 12: A choropleth of prevalence of dental caries experience (%d3mft>0) in school year one children by Unitary Authority in 2024/25

Severity of dental caries experience

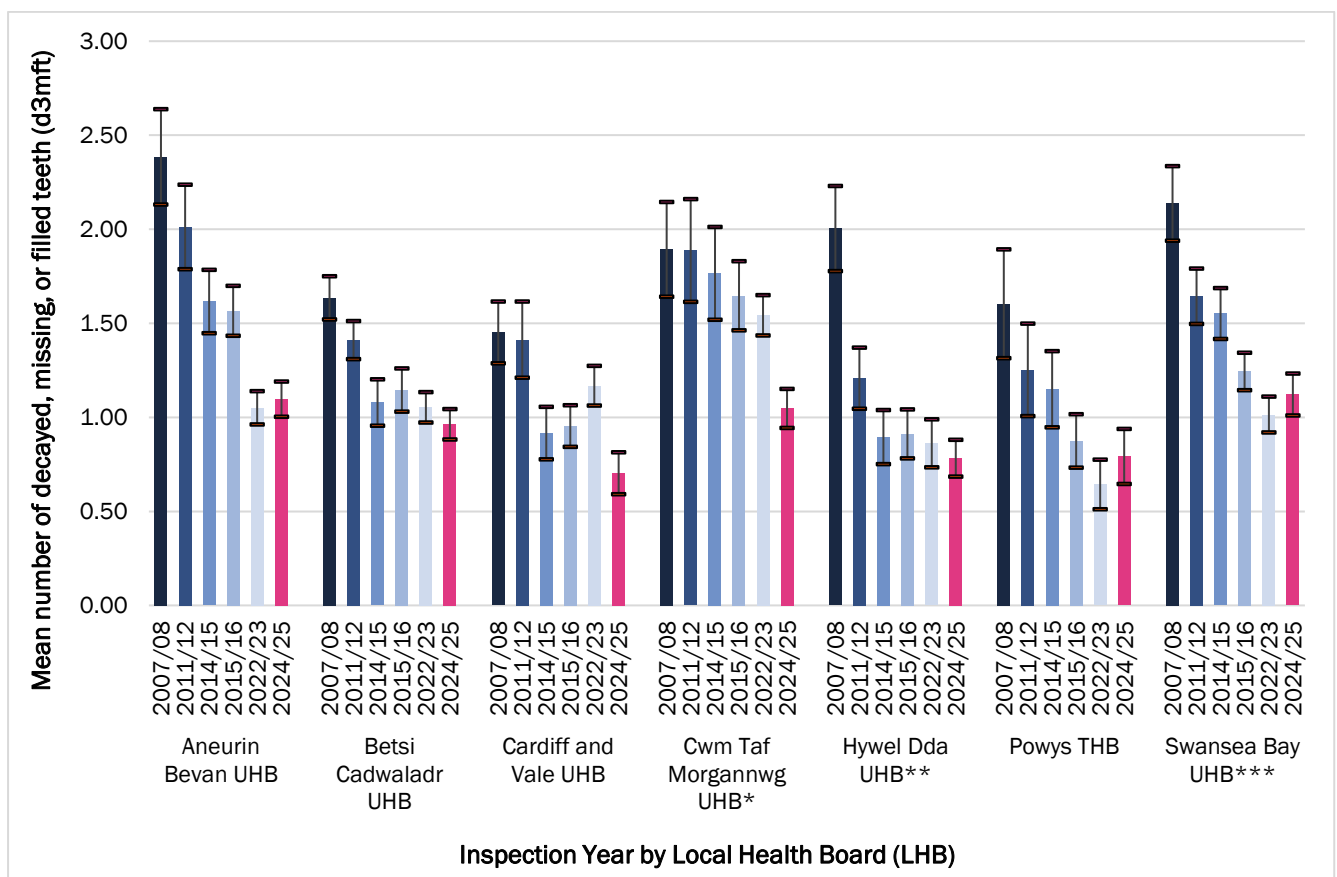
On a whole population basis, the average number of teeth with dental caries experience (d3mft) ranges from 0.70 (95% CI 0.51 to 0.78) in Cardiff and Vale UHB to 1.12 (95% CI 0.59 to 0.81) in Swansea Bay UHB (Figure 13, [Supplementary table 13](#)).

Amongst children with experience of dental caries (d3mft>0), the average number of teeth with dental caries experience (d3mft) ranges from 3.06 (95% CI 2.76 to 3.35) in Hywel Dda UHB to 3.84 (95% CI 3.53 to 4.14) in Swansea Bay UHB (Figure 14, [Supplementary table 14](#)).

On whole population basis since 2022/23 there has been a reduction in the severity of disease in two Local Health Boards (Cardiff and Vale UHB and Cwm Taf Morgannwg UHB) and no change in four (Aneurin Bevan UHB, Betsi Cadwaladr UHB, Powys THB and Swansea Bay UHB) (Figures 13, [Supplementary table 13](#)). Due to missing data from the Ceredigion Unitary Authority area in 2022/23, no comparisons can be made for Hywel Dda UHB.

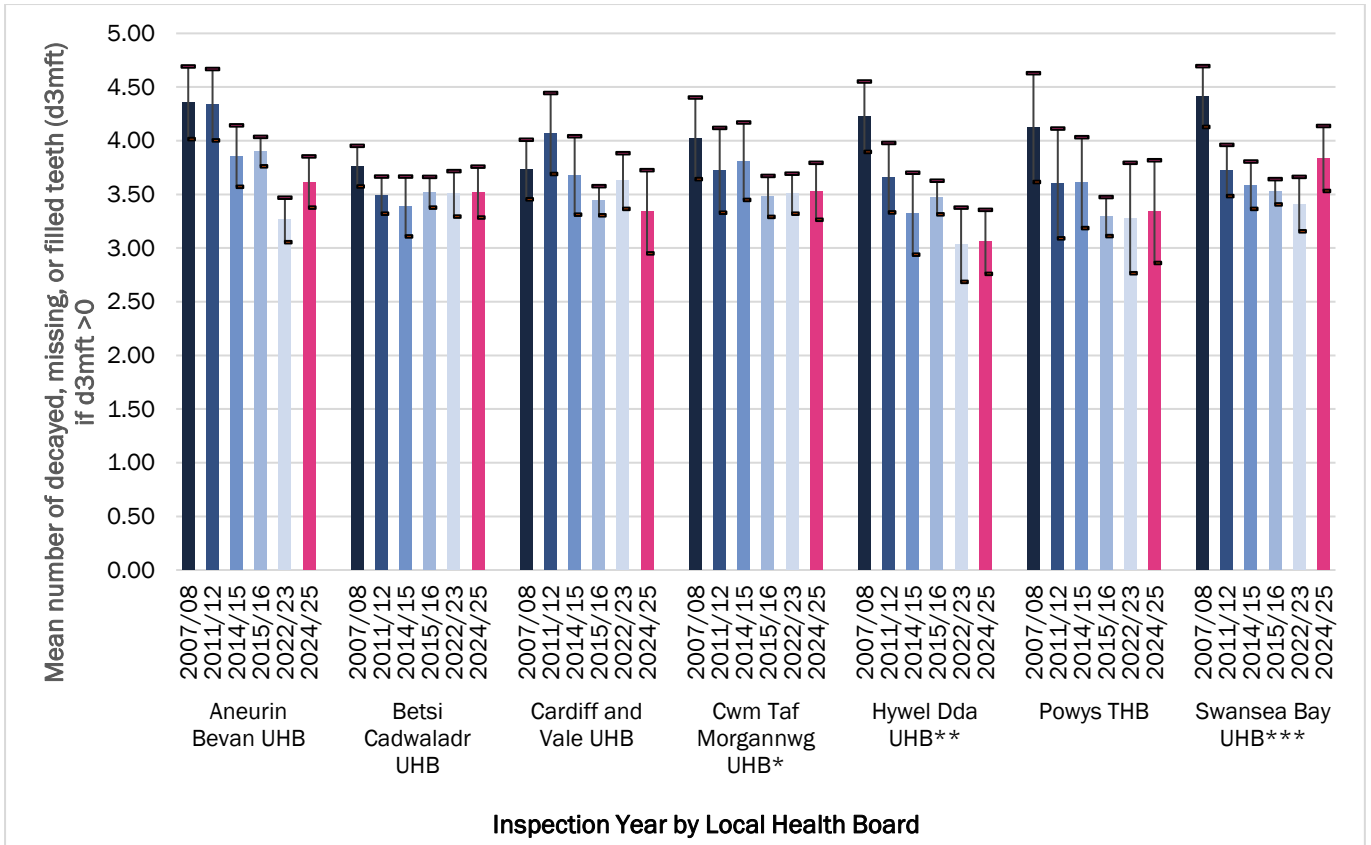
Among children with experience of dental caries (d3mft > 0), there has been no change in number of teeth affected by disease at Local Health Board level since 2022/23 (Figure 14, [Supplementary table 14](#)).

At a Unitary Authority-level disease severity ranges from mean number of decayed, missing or filled teeth (d3mft) of 0.55 (95% 0.40 to 0.70) in the Vale of Glamorgan to 1.58 (95% CI 1.28 to 1.87) in Blaenau Gwent (Figure 15, [Supplementary table 12](#)).



* Cwm Taf UHB prior to 1st April 2019
 ** Data from Carmarthenshire and Pembrokeshire only in 2022/23
 *** Abertawe Bro Morgannwg UHB prior to 1st April 2019

Figure 13: Mean number of decayed, missing or filled teeth (d3mft) by Local Health Boards, 2007/08 to 2024/25



* Cwm Taf UHB prior to 1st April 2019
 ** Data from Carmarthenshire and Pembrokeshire only in 2022/23
 *** Abertawe Bro Morgannwg UHB prior to 1st April 2019

Figure 14: Mean number of decayed, missing or filled teeth (d3mft) in children with dental caries experience (d3mft>0) by Local Health Boards, 2007/08 to 2024/25

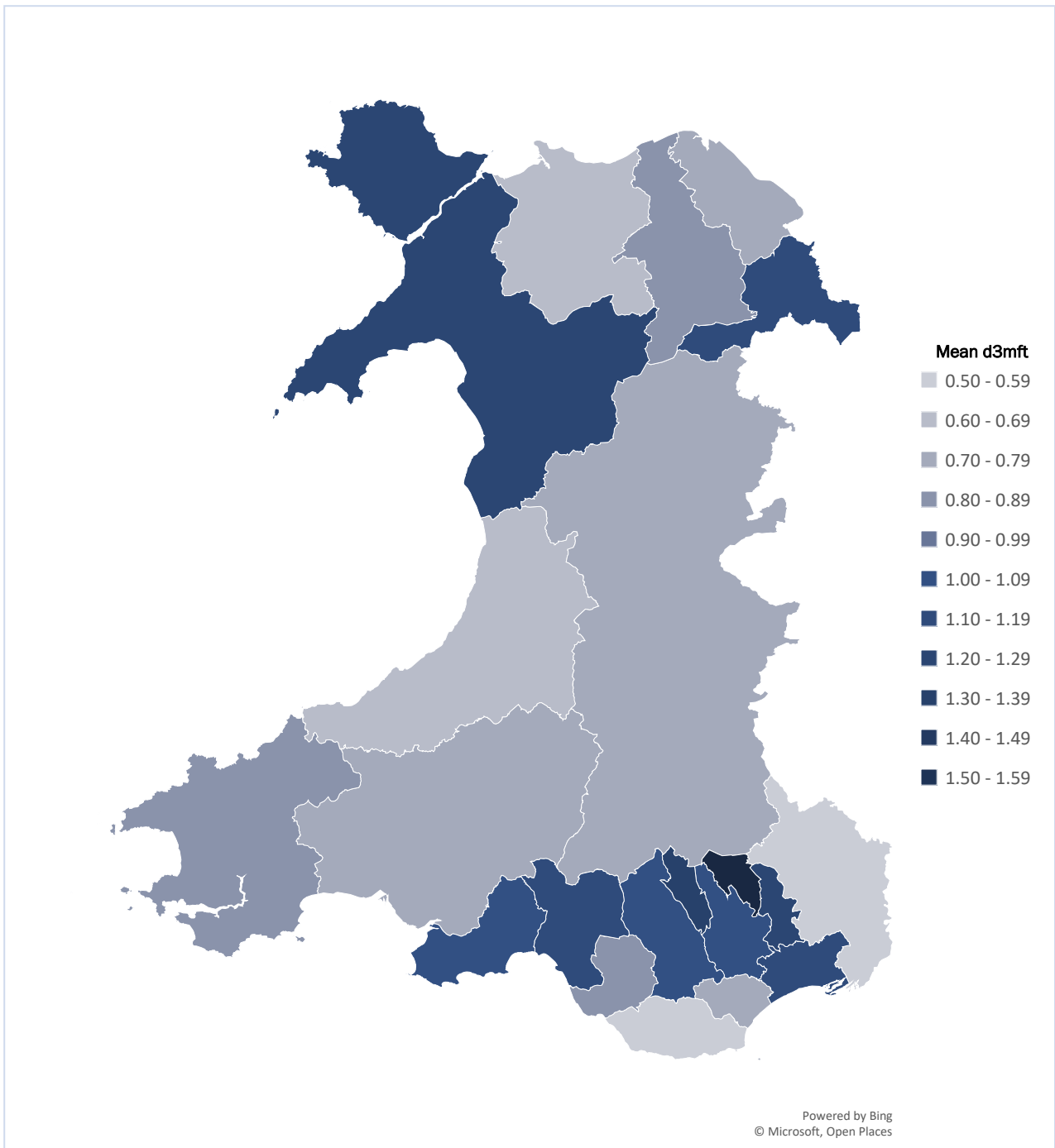
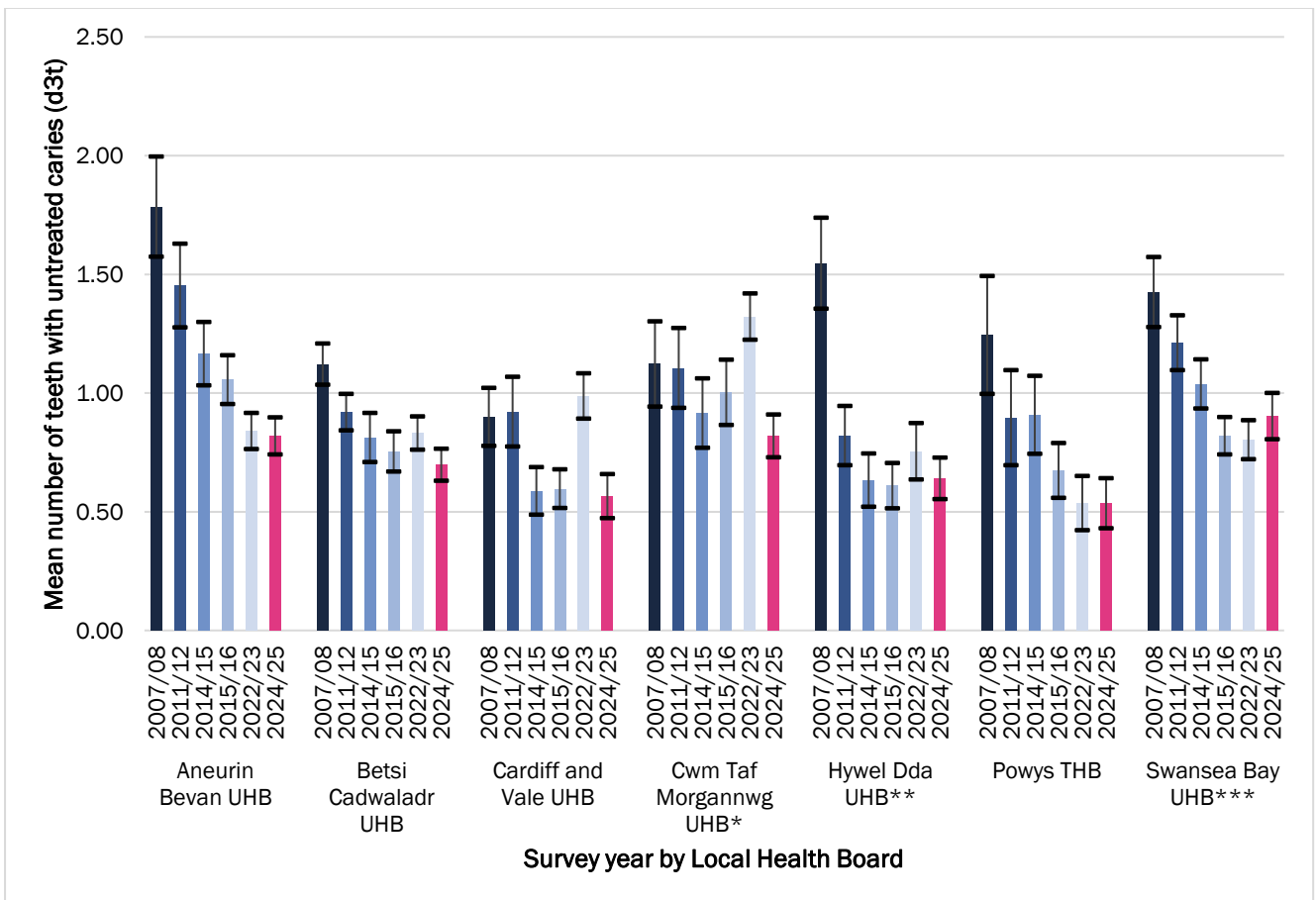


Figure 15: A choropleth of mean number of decayed, missing, or filled teeth (d3mft) per Unitary Authority in school year one children 2024/25

Untreated dental caries

The prevalence of untreated dental caries (%d3t>0) ranges from 19.1% (95% CI 16.8% to 21.4%) in Cardiff and Vale UHB to 26.5% (95% CI 24.4% to 28.5%) in Swansea Bay UHB (Figure 16, [Supplementary table 15](#)).

Since 2022/23 there have been reduction in the prevalence of untreated dental caries in three Local Health Boards (Betsi Cadwaladr UHB, Cardiff and Vale UHB, and Cwm Taf Morgannwg UHB), no change in three (Aneurin Bevan UHB, Powys THB and Swansea Bay UHB) (Figure 16, [Supplementary table 15](#)). Due to missing data from the Ceredigion Unitary Authority area in 2022/23, no comparisons can be made for Hywel Dda UHB.



* Cwm Taf UHB prior to 1st April 2019

** Data from Carmarthenshire and Pembrokeshire only in 2022/23

*** Abertawe Bro Morgannwg UHB prior to 1st April 2019

Figure 16: Mean number of teeth with untreated dental caries (d3t) in Local Health Boards, 2007/08 to 2024/25

Impact of dental caries

The prevalence of one or more oral health-related quality of life impacts varies between 15.3% (95% CI 13.5% to 17.1%) in Cwm Taf Morgannwg UHB to 21.5% (95% CI 19.5% to 23.5%) in Swansea Bay UHB (Table 5).

	Prevalence (%)								
	One or more child impacts			One or more family impacts			One or more child or family impacts		
	Mean	95% Confidence interval		Mean	95% Confidence interval		Mean	95% Confidence interval	
		Low	High		Low	High		Low	High
Aneurin Bevan UHB	16.8	15.2	18.4	10.2	8.9	11.5	20.2	18.5	21.9
Betsi Cadwaladr UHB	14.5	13.1	15.9	10.0	8.8	11.2	18.0	16.5	19.5
Cardiff and Vale UHB	12.6	10.2	14.2	7.0	5.5	8.6	15.4	13.1	17.6
Cwm Taf Morgannwg UHB	13.2	11.5	14.9	7.2	5.9	8.5	15.3	13.5	17.1
Hywel Dda UHB	12.2	10.4	14.0	7.8	6.4	9.3	15.8	13.8	17.8
Powys THB	13.1	10.4	15.8	7.9	5.7	10.1	15.8	12.9	18.7
Swansea Bay UHB	17.9	16.0	19.7	11.2	9.7	12.8	21.5	19.5	23.5
WALES	14.5	17.0	18.4	9.0	8.4	9.5	17.7	17.0	18.4

Table 5: Prevalence of child and family oral health-related quality of life impacts in Local Health Boards

Management of dental caries

The mean number of missing teeth is highest in Aneurin Bevan UHB (0.17 (95% CI 0.13 to 0.21)) and lowest in Cardiff and Vale UHB (0.06 (95% CI 0.02 to 0.11)) and Hywel Dda UHB (0.06 (95% CI 0.03 to 0.09)).

The mean number of filled teeth is highest in Betsi Cadwaladr UHB (0.12 (95% CI 0.10 to 0.14)) and lowest in Cardiff and Vale UHB (0.07 (95% CI 0.05 to 0.10)) ([Supplementary table 16](#)). The proportion of decayed (d3t), missing (mt) and filled teeth (ft) as a proportion of all teeth with caries experience is shown in Figure 17.

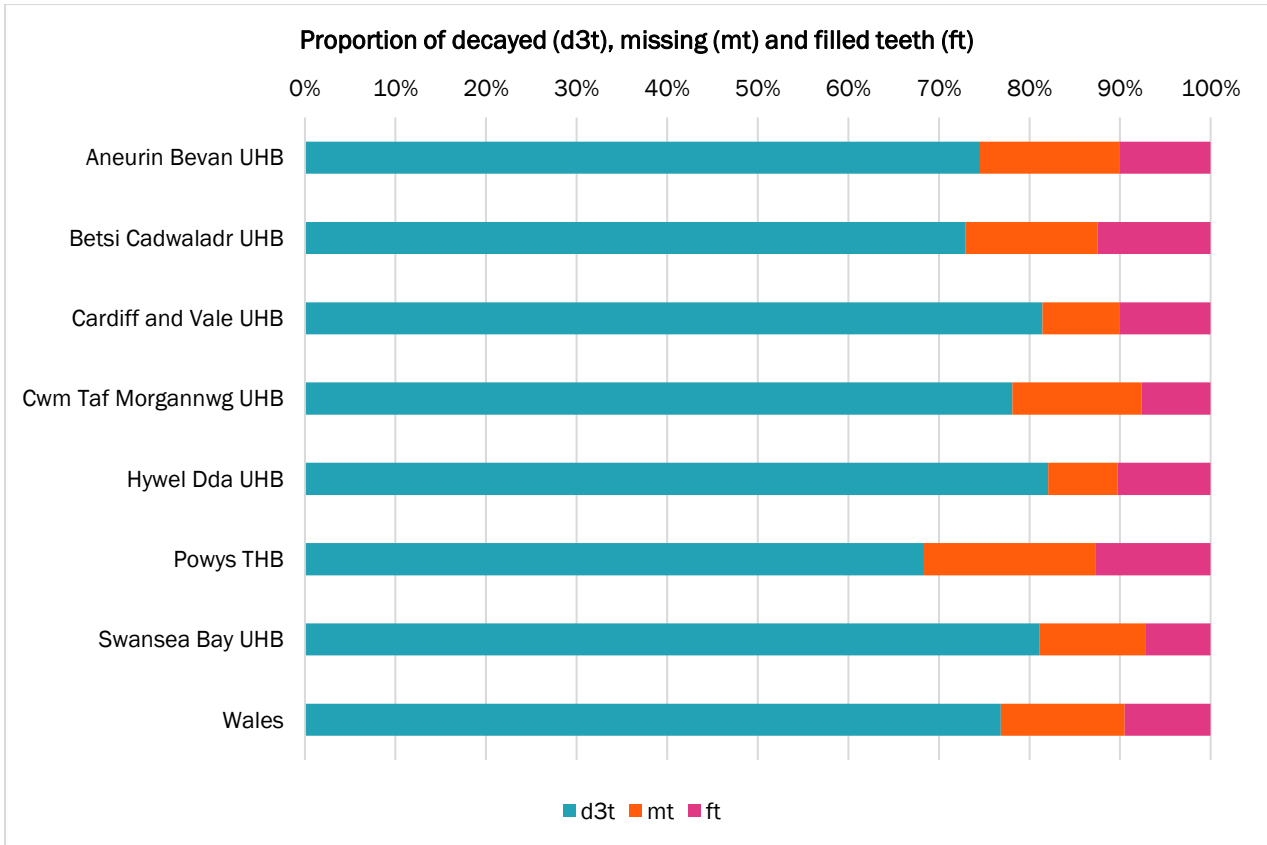


Figure 17: Proportion of all teeth with caries experience which are decayed (d3t) missing (mt), and filled teeth (ft) in Wales and per Local Health Board 2024/25

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Supplementary Tables

Supplementary table 1: Prevalence of dental caries experience (%d3mft>0) in school year one children in Wales 2007/08 to 2024/25

Inspection Year	Prevalence of dental caries experience (%d3mft>0)		
	Mean	95% CI Low	95% CI High
2007/08	47.56	46.40	48.72
2011/12	41.40	40.32	42.51
2014/15	35.40	34.38	36.52
2015/16	34.20	33.17	35.23
2022/23	32.40	31.52	33.18
2024/25	27.16	26.33	27.98

Supplementary table 2: Mean number of teeth with dental caries experience (d3mft) and the mean number of teeth affected in those with dental caries experience (d3mft if d3mft>0) in school year one children 2007/08 to 2024/25

Inspection Year		Number of teeth with dental caries experience (d3mft)		
		Mean	95% CI Low	95% CI High
2007/08	All children	1.98	1.89	2.07
	If d3mft>0	4.16	4.02	4.29
2011/12	All children	1.59	1.52	1.67
	If d3mft>0	3.85	3.72	3.97
2014/15	All children	1.29	1.22	1.35
	If d3mft>0	3.63	3.51	3.75
2015/16	All children	1.22	1.17	1.27
	If d3mft>0	3.58	3.52	3.64
2022/23	All children	1.11	1.07	1.15
	If d3mft>0	3.42	3.33	3.52
2024/25	All children	0.95	0.91	0.99
	If d3mft>0	3.51	3.39	3.62

Supplementary table 3: Mean number of teeth with untreated dental caries (d3t) and the mean number of teeth affected in those with untreated dental caries (d3t if d3t>0) in school year one children 2007/08 to 2024/25

Inspection Year		Number of teeth with untreated dental caries (d3t)		
		Mean	95% CI Low	95% CI High
2007/08	All children	1.40	1.32	1.47
	If d3t>0	3.29	3.16	3.41
2011/12	All children	1.08	1.03	1.14
	If d3t>0	3.00	2.90	3.11
2014/15	All children	0.88	0.83	0.92
	If d3t>0	2.92	2.81	3.02
2015/16	All children	0.80	0.77	0.84
	If d3t>0	2.85	2.80	2.89
2022/23	All children	0.91	0.88	0.95
	If d3t>0	3.11	3.02	3.21
2024/25	All children	0.73	0.70	0.76
	If d3t>0	3.07	2.97	3.18

Supplementary table 4: Prevalence of dental caries experience (%d3mft>0) by Welsh Index of Multiple Deprivation (WIMD) 2019 quintile 2007/08 to 2024/25

WIMD (2019) Quintile	Inspection Year	Prevalence of dental caries experience (%d3mft>0) (%)		
		Mean	95% CI Low	95% CI High
Most deprived	2007/08	57.56	54.29	60.76
	2011/12	51.50	48.76	54.23
	2014/15	45.40	42.95	47.87
	2015/16	42.20	39.65	44.79
	2022/23	43.40	41.30	45.55
	2024/25	37.56	35.42	39.69
Second most deprived	2007/08	49.22	46.61	51.83
	2011/12	48.30	45.62	50.99
	2014/15	40.30	37.66	43.00
	2015/16	39.40	36.96	41.89
	2022/23	36.20	34.34	38.01
	2024/25	30.61	28.71	32.51
Middle deprived	2007/08	44.14	41.74	46.57
	2011/12	41.40	39.13	43.71
	2014/15	33.80	31.56	36.12
	2015/16	34.20	31.94	36.53
	2022/23	33.40	31.32	35.42
	2024/25	27.90	26.02	29.78
Second least deprived	2007/08	41.30	38.96	43.69
	2011/12	32.80	30.51	35.18
	2014/15	30.40	27.98	32.93
	2015/16	30.10	27.96	32.33
	2022/23	28.60	26.96	30.31
	2024/25	22.14	20.59	23.68
Least deprived	2007/08	34.54	32.19	36.96
	2011/12	31.30	29.19	33.49
	2014/15	24.90	23.00	26.91
	2015/16	22.30	20.49	24.22
	2022/23	20.70	19.11	22.20
	2024/25	19.84	18.05	21.63

Supplementary table 5: Mean number of decayed, missing and filled teeth (d3mft) per Welsh Index of Multiple Deprivation (WIMD) 2019 quintile¹ 2007/08 to 2024/25

WIMD (2019) Quintile	Inspection Year	Number of decayed, missing or filled teeth (d3mft)		
		Mean	95% CI Low	95% CI High
Most deprived	2007/08	2.20	-	-
	2011/12	2.20	-	-
	2014/15	1.90	-	-
	2015/16	1.60	1.46	1.72
	2022/23	1.61	1.50	1.72
	2024/25	1.45	1.33	1.57
Second most deprived	2007/08	1.80	-	-
	2011/12	1.90	-	-
	2014/15	1.50	-	-
	2015/16	1.50	1.34	1.60
	2022/23	1.25	1.17	1.34
	2024/25	1.11	1.02	1.21
Middle deprived	2007/08	1.70	-	-
	2011/12	1.50	-	-
	2014/15	1.20	-	-
	2015/16	1.30	1.12	1.36
	2022/23	1.20	1.10	1.31
	2024/25	0.96	0.87	1.05
Second least deprived	2007/08	1.10	-	-
	2011/12	1.20	-	-
	2014/15	0.90	-	-
	2015/16	1.00	0.90	1.09
	2022/23	0.95	0.87	1.02
	2024/25	0.67	0.61	0.73
Least deprived	2007/08	1.00	-	-
	2011/12	1.00	-	-
	2014/15	0.80	-	-
	2015/16	0.70	0.61	0.76
	2022/23	0.55	0.50	0.61
	2024/25	0.69	0.60	0.77

¹ 95% confidence intervals not available for 2014/15 and earlier

Supplementary table 6: Mean number of teeth with untreated dental caries (d3t) and the mean number of affected teeth in those with untreated dental caries (d3t if d3t>0) by WIMD (2019) quintile in 2024/25

WIMD (2019) quintile		Number of teeth with untreated dental caries (d3t)		
		Mean	95% CI Low	95% CI High
Most deprived	All children	1.14	1.04	1.24
	If d3t>0	3.35	3.12	3.59
Second most deprived	All children	0.84	0.76	0.91
	If d3t>0	3.19	2.97	3.42
Middle deprived	All children	0.74	0.66	0.81
	If d3t>0	3.02	2.78	3.26
Second least deprived	All children	0.51	0.46	0.56
	If d3t>0	2.65	2.44	2.85
Least deprived	All children	0.52	0.45	0.60
	If d3t>0	3.09	2.76	3.41

Supplementary table 7: Slope index of inequality in the prevalence of dental caries experience in school year one children in Wales, 2007/08 to 2024/25

Inspection Year	Slope index of inequality (SII) in dental caries experience prevalence (%)		
	SII	95% CI Low	95% CI High
2007/08	26.8	23.1	30.4
2011/12	27.6	23.1	32.1
2014/15	25.2	24.2	26.3
2015/16	24.4	18.7	30.0
2022/23	26.1	20.2	32.0
2024/25	20.3	17.0	23.5

Supplementary table 8: Prevalence of one or more oral health-related quality of life impacts by Welsh Index of Multiple Deprivation (WIMD) 2019 quintiles in school year one children in 2024/25

WIMD (2019) Quintile		Prevalence of one or more oral health-related quality of life impacts (%)		
		Mean	95% CI Low	95% CI High
Most deprived	All children	22.14	20.22	24.06
	If d3mft>0	40.09	35.96	44.22
Second most deprived	All children	18.75	17.07	20.43
	If d3mft>0	39.90	35.59	44.21
Middle deprived	All children	17.63	15.95	19.31
	If d3mft>0	38.10	33.55	42.65
Second least deprived	All children	16.63	15.18	18.07
	If d3mft>0	38.51	34.03	42.99
Least deprived	All children	14.15	12.51	15.78
	If d3mft>0	35.67	30.02	41.33

Supplementary table 9: Mean ECOHIS oral health-related quality of life impact by WIMD (2019) quintile in 2024/25

WIMD (2019) Quintile		ECOHIS oral health-related quality of life impact score		
		Mean	95% CI Low	95% CI High
Most deprived	All children	2.37	2.16	2.57
	If d3mft>0	4.39	3.86	4.91
Second most	All children	2.03	1.84	2.22
	If d3mft>0	4.59	4.01	5.17
Middle	All children	1.81	1.64	1.98
	If d3mft>0	4.24	3.68	4.80
Second least	All children	1.62	1.48	1.76
	If d3mft>0	4.20	3.67	4.73
Least deprived	All children	1.59	1.42	1.76
	If d3mft>0	4.31	3.57	5.05

Supplementary table 10: Mean number of decayed (d3t), missing (mt) and filled teeth (ft) in school year one children 2007/08 to 2024/25

Inspection Year	Teeth with untreated decay (d3t)			Missing teeth (mt)			Filled teeth (ft)		
	Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High
2007/08	1.40	1.32	1.47	0.37	0.32	0.42	0.21	0.19	0.23
2011/12	1.08	1.03	1.14	0.32	0.28	0.36	0.19	0.17	0.20
2014/15	0.88	0.83	0.92	0.24	0.21	0.27	0.17	0.15	0.18
2015/16	0.80	0.77	0.84	0.27	0.24	0.29	0.16	0.14	0.17
2022/23	0.91	0.88	0.95	0.11	0.09	0.12	0.09	0.08	0.09
2024/25	0.73	0.70	0.76	0.13	0.11	0.14	0.09	0.09	0.10

Supplementary table 11: Prevalence of dental caries experience (%d3mft>0) by Local Health Board 2007/08 to 2024/25

Local Health Board	Inspection Year	Prevalence of dental caries experience (%d3mft>0) (%)		
		Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	2007/08	54.77	51.66	57.87
	2011/12	46.39	43.74	49.03
	2014/15	41.90	39.40	44.44
	2015/16	40.17	37.78	42.61
	2022/23	32.22	30.26	34.19
	2024/25	30.34	28.46	32.21
Betsi Cadwaladr UHB	2007/08	43.44	41.42	45.47
	2011/12	40.36	38.46	42.27
	2014/15	31.85	29.40	34.41
	2015/16	32.54	30.16	35.02
	2022/23	30.04	28.36	31.73
	2024/25	27.37	25.72	29.01
Cardiff and Vale UHB	2007/08	38.88	35.93	41.83
	2011/12	34.73	31.55	37.92
	2014/15	24.92	22.79	27.19
	2015/16	27.73	25.52	30.04
	2022/23	32.22	30.17	34.27
	2024/25	21.04	18.63	23.45
Cwm Taf Morgannwg UHB ¹	2007/08	47.06	42.70	51.43
	2011/12	50.65	46.10	55.21
	2014/15	46.35	42.31	50.44
	2015/16	47.28	43.32	51.27
	2022/23	44.01	41.82	46.20
	2024/25	29.69	27.50	31.87
Hywel Dda UHB ²	2007/08	47.43	43.97	50.89
	2011/12	33.06	29.79	36.33
	2014/15	26.96	24.01	30.13
	2015/16	26.30	23.55	29.24
	2022/23	28.42	25.39	31.44
	2024/25	25.61	23.27	27.95
Powys THB	2007/08	38.90	33.92	43.88
	2011/12	34.75	30.01	39.50
	2014/15	31.84	27.89	36.06
	2015/16	26.54	22.78	30.67
	2022/23	19.61	16.53	22.70
	2024/25	23.70	20.38	27.98
Swansea Bay UHB ³	2007/08	48.46	45.51	51.41
	2011/12	44.16	41.47	46.85
	2014/15	43.30	40.86	45.77

2015/16	35.30	33.03	37.63
2022/23	29.75	27.72	31.79
2024/25	29.24	27.13	31.36

¹ Cwm Taf UHB prior to 1st April 2019

² Data from Carmarthenshire and Pembrokeshire only in 2022/23

³ Abertawe Bro Morgannwg UHB prior to 1st April 2019

Supplementary table 12: Prevalence of dental caries experience (%d3mft>0) and number of teeth with dental caries experience (d3mft) at Unitary Authority Area in 2024/25

Local Health Board	Unitary Authority Areas	Prevalence of dental caries experience (%d3mft>0) (%)			Number of teeth with dental caries experience (d3mft)		
		Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	Blaenau Gwent	36.00	30.77	41.23	1.58	1.28	1.87
	Caerphilly	29.78	26.90	32.65	1.04	0.91	1.18
	Monmouthshire	20.72	16.15	25.29	0.58	0.40	0.76
	Newport	30.43	26.48	34.39	1.13	0.92	1.33
	Torfaen	34.93	30.07	39.78	1.21	0.97	1.45
Betsi Cadwaladr UHB	Conwy	20.17	16.75	23.59	0.68	0.53	0.83
	Denbighshire	22.81	18.65	26.96	0.89	0.65	1.12
	Flintshire	26.33	22.85	29.81	0.75	0.61	0.88
	Gwynedd	30.06	26.18	33.94	1.23	1.00	1.45
	Isle of Anglesey	31.50	26.26	36.74	1.20	0.94	1.46
	Wrexham	33.51	29.37	37.66	1.16	0.96	1.36
Cardiff and Vale UHB	Cardiff	21.12	18.20	24.04	0.76	0.62	0.90
	The Vale of Glamorgan	20.83	16.64	25.03	0.55	0.40	0.70
Cwm Taf Morgannwg UHB	Bridgend	27.16	23.40	30.91	0.89	0.72	1.05
	Merthyr Tydfil	34.76	29.46	40.06	1.33	1.06	1.61
	Rhondda Cynon Taff	29.86	26.75	32.96	1.07	0.92	1.22
Hywel Dda UHB	Carmarthenshire	25.70	22.73	28.67	0.77	0.65	0.90
	Ceredigion	23.17	17.74	28.60	0.68	0.48	0.87
	Pembrokeshire	26.67	21.89	31.44	0.85	0.65	1.06
Powys THB	Powys	23.70	20.38	27.01	0.79	0.64	0.94
Swansea Bay UHB	Neath Port Talbot	31.55	28.14	34.95	1.18	1.00	1.36
	Swansea	28.02	25.33	30.71	1.09	0.95	1.23

Supplementary table 13: Mean number of teeth with dental caries experience (d3mft) by Local Health Board 2007/08 to 2024/25

Local Health Board	Inspection Year	Number of teeth with dental caries experience (d3mft)		
		Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	2007/08	2.38	2.13	2.64
	2011/12	2.01	1.79	2.24
	2014/15	1.62	1.45	1.78
	2015/16	1.57	1.43	1.70
	2022/23	1.05	0.96	1.14
	2024/25	1.10	1.00	1.19
Betsi Cadwaladr UHB	2007/08	1.64	1.52	1.75
	2011/12	1.41	1.31	1.51
	2014/15	1.08	0.95	1.20
	2015/16	1.15	1.03	1.26
	2022/23	1.05	0.97	1.13
	2024/25	0.96	0.88	1.04
Cardiff and Vale UHB	2007/08	1.45	1.29	1.62
	2011/12	1.41	1.21	1.61
	2014/15	0.92	0.78	1.06
	2015/16	0.95	0.84	1.06
	2022/23	1.17	1.06	1.27
	2024/25	0.70	0.59	0.81
Cwm Taf Morgannwg UHB ¹	2007/08	1.89	1.64	2.15
	2011/12	1.89	1.61	2.16
	2014/15	1.77	1.52	2.01
	2015/16	1.65	1.46	1.83
	2022/23	1.54	1.44	1.65
	2024/25	1.05	0.94	1.15
Hywel Dda UHB ²	2007/08	2.00	1.78	2.23
	2011/12	1.21	1.05	1.37
	2014/15	0.90	0.75	1.04
	2015/16	0.91	0.78	1.04
	2022/23	0.86	0.73	0.99
	2024/25	0.78	0.68	0.88
Powys THB	2007/08	1.60	1.31	1.89
	2011/12	1.25	1.01	1.50
	2014/15	1.15	0.95	1.35
	2015/16	0.87	0.73	1.02
	2022/23	0.64	0.51	0.78
	2024/25	0.79	0.64	0.94
Swansea Bay UHB ³	2007/08	2.14	1.94	2.34
	2011/12	1.64	1.50	1.79
	2014/15	1.55	1.42	1.69

	2015/16	1.24	1.14	1.34
	2022/23	1.01	0.92	1.11
	2024/25	1.12	1.01	1.23

¹ Cwm Taf UHB prior to 1st April 2019

² Data from Carmarthenshire and Pembrokeshire only in 2022/23

³ Abertawe Bro Morgannwg UHB prior to 1st April 2019

Supplementary table 14: Mean number of teeth with dental caries experience (d3mft) in children with dental caries experience (d3mft>0) by Local Health Board 2007/08 to 2024/25

Local Health Board	Inspection Year	Mean number of teeth with dental caries experience (d3mft) in children with dental caries experience (d3mft>0)		
		Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	2007/08	4.35	4.02	4.69
	2011/12	4.34	4.00	4.67
	2014/15	3.86	3.57	4.14
	2015/16	3.90	3.76	4.04
	2022/23	3.26	3.05	3.47
	2024/25	3.62	3.38	3.86
Betsi Cadwaladr UHB	2007/08	3.76	3.57	3.95
	2011/12	3.49	3.32	3.67
	2014/15	3.39	3.11	3.67
	2015/16	3.52	3.38	3.66
	2022/23	3.51	3.29	3.72
	2024/25	3.52	3.28	3.76
Cardiff and Vale UHB	2007/08	3.73	3.45	4.01
	2011/12	4.07	3.69	4.44
	2014/15	3.68	3.31	4.04
	2015/16	3.44	3.30	3.58
	2022/23	3.63	3.37	3.88
	2024/25	3.34	2.95	3.72
Cwm Taf Morgannwg UHB ¹	2007/08	4.02	3.64	4.40
	2011/12	3.72	3.33	4.12
	2014/15	3.81	3.45	4.17
	2015/16	3.48	3.29	3.67
	2022/23	3.51	3.32	3.69
	2024/25	3.53	3.26	3.80
Hywel Dda UHB ²	2007/08	4.22	3.90	4.55
	2011/12	3.66	3.33	3.98
	2014/15	3.32	2.94	3.70
	2015/16	3.47	3.31	3.63
	2022/23	3.03	2.68	3.38
	2024/25	3.06	2.76	3.35
Powys THB	2007/08	4.12	3.61	4.63
	2011/12	3.60	3.09	4.11
	2014/15	3.61	3.19	4.03
	2015/16	3.29	3.11	3.48
	2022/23	3.28	2.76	3.79
	2024/25	3.34	2.86	3.82
Swansea Bay UHB ³	2007/08	4.41	4.13	4.69
	2011/12	3.72	3.48	3.96
	2014/15	3.59	3.36	3.81

	2015/16	3.53	3.41	3.64
	2022/23	3.41	3.16	3.66
	2024/25	3.84	3.53	4.14

¹ Cwm Taf UHB prior to 1st April 2019

² Data from Carmarthenshire and Pembrokeshire only in 2022/23

³ Abertawe Bro Morgannwg UHB prior to 1st April 2019

Supplementary table 15: Prevalence of untreated dental decay (d3t) and mean number of affected teeth by Local Health Boards 2007/08 to 2024/25

Local Health Board	Inspection Year	Prevalence of untreated dental caries (%d3t>0)			Teeth with untreated dental caries (d3t)			Teeth with untreated dental caries (d3t) in those with untreated decay (d3t>0)		
		Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	2007/08	-	-	-	1.78	1.57	2.00	3.26	2.95	3.57
	2011/12	43.23	40.60	45.86	1.45	1.28	1.63	2.74	2.55	2.94
	2014/15	36.78	34.35	39.28	1.17	1.03	1.30	2.41	2.22	2.59
	2015/16	34.79	32.48	37.17	1.06	0.95	1.16	3.04	2.90	3.17
	2022/23	28.66	26.76	30.56	0.84	0.76	0.92	2.93	2.73	3.13
	2024/25	26.47	24.67	28.27	0.82	0.74	0.90	3.09	2.87	3.32
Betsi Cadwaladr UHB	2007/08	-	-	-	1.12	1.03	1.21	2.58	2.43	2.73
	2011/12	33.29	31.46	35.12	0.92	0.84	1.00	3.13	2.86	3.41
	2014/15	27.03	24.71	29.48	0.81	0.71	0.92	2.78	2.54	3.03
	2015/16	26.30	24.08	28.65	0.75	0.67	0.84	2.87	2.74	2.99
	2022/23	25.90	24.30	27.50	0.83	0.76	0.90	3.21	3.00	3.42
	2024/25	22.60	21.06	24.13	0.70	0.63	0.77	3.09	2.85	3.33
Cardiff and Vale UHB	2007/08	-	-	-	0.90	0.78	1.02	2.31	2.07	2.55
	2011/12	30.82	27.73	33.91	0.92	0.77	1.07	2.28	2.13	2.42
	2014/15	20.38	18.41	22.50	0.59	0.49	0.69	2.55	2.30	2.80
	2015/16	22.86	20.81	25.05	0.60	0.51	0.68	2.61	2.48	2.74
	2022/23	30.09	28.07	32.10	0.99	0.89	1.08	3.28	3.03	3.54
	2024/25	19.07	16.75	21.40	0.57	0.47	0.66	2.96	2.61	3.31
Cwm Taf Morgannwg UHB ¹	2007/08	-	-	-	1.12	0.94	1.30	2.39	2.08	2.69
	2011/12	43.18	38.67	47.69	1.11	0.94	1.27	2.65	2.37	2.94
	2014/15	37.83	33.96	41.87	0.92	0.77	1.06	2.36	2.08	2.63
	2015/16	39.84	36.00	43.80	1.00	0.87	1.14	2.52	2.34	2.69
	2022/23	41.45	39.27	43.62	1.32	1.22	1.42	3.19	3.01	3.37
	2024/25	25.91	23.81	28.01	0.82	0.73	0.91	3.16	2.90	3.43
Hywel Dda UHB ²	2007/08	-	-	-	1.55	1.36	1.74	3.26	2.96	3.56
	2011/12	27.69	24.58	30.80	0.82	0.70	0.95	2.18	1.92	2.45
	2014/15	22.94	20.16	25.97	0.63	0.52	0.75	1.98	1.73	2.22
	2015/16	21.48	18.94	24.25	0.61	0.51	0.70	2.84	2.70	2.97
	2022/23	26.46	23.51	29.41	0.75	0.64	0.87	2.85	2.50	3.21
	2024/25	23.22	20.95	25.49	0.64	0.55	0.73	2.76	2.46	3.05
Powys THB	2007/08	-	-	-	1.24	1.00	1.49	3.20	2.72	3.68

	2011/12	29.39	24.86	33.93	0.90	0.70	1.10	2.48	2.19	2.77
	2014/15	29.82	25.96	33.98	0.91	0.74	1.07	2.35	2.02	2.67
	2015/16	23.47	19.89	27.47	0.67	0.56	0.79	2.87	2.68	3.06
	2022/23	17.44	14.49	20.39	0.54	0.42	0.65	3.07	2.58	3.57
	2024/25	20.85	17.68	24.02	0.54	0.43	0.64	2.57	2.18	2.95
Swansea Bay UHB ³	2007/08	-	-	-	1.43	1.28	1.57	2.94	2.70	3.17
	2011/12	40.54	37.88	43.20	1.21	1.10	1.33	2.58	2.12	3.04
	2014/15	35.79	33.45	38.20	1.04	0.94	1.14	2.85	2.49	3.22
	2015/16	27.32	25.23	29.52	0.82	0.74	0.90	3.00	2.88	3.13
	2022/23	26.27	24.31	28.23	0.80	0.72	0.89	3.06	2.81	3.31
	2024/25	26.48	24.43	28.52	0.90	0.81	1.00	3.41	3.11	3.71

¹ Cwm Taf UHB prior to 1st April 2019

² Data from Carmarthenshire and Pembrokeshire only in 2022/23

³ Abertawe Bro Morgannwg UHB prior to 1st April 2019

Supplementary table 16: Mean number of decayed (d3t), missing (mt) and filled teeth (ft) in school year one children by Local Health Board 2007/08 to 2024/25

Local Health Board	Teeth with untreated decay (d3t)			Missing teeth (mt)			Filled teeth (ft)		
	Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High	Mean	95% CI Low	95% CI High
Aneurin Bevan UHB	0.82	0.74	0.90	0.17	0.13	0.21	0.11	0.08	0.13
Betsi Cadwaladr UHB	0.70	0.63	0.77	0.14	0.11	0.18	0.12	0.10	0.14
Cardiff and Vale UHB	0.57	0.47	0.66	0.06	0.02	0.11	0.07	0.05	0.10
Cwm Taf Morgannwg UHB	0.82	0.73	0.91	0.15	0.11	0.20	0.08	0.06	0.10
Hywel Dda UHB	0.64	0.55	0.73	0.06	0.03	0.09	0.08	0.06	0.11
Powys THB	0.54	0.43	0.64	0.15	0.08	0.23	0.10	0.06	0.14
Swansea Bay UHB	0.90	0.81	1.00	0.13	0.09	0.17	0.08	0.06	0.11
Wales	0.73	0.70	0.76	0.13	0.11	0.14	0.09	0.09	0.10

Appendix 1 – Early Childhood Oral Health Impact Scale (ECOHIS) (Pahel et al. 2007)

Problems with the teeth, mouth or jaws and their treatment can affect the well-being and everyday lives of children and their families. For each of the following questions please circle the number next to the response that best describes your child's experiences or your own. Consider the child's entire life from birth until now when answering each question. If a question does not apply, circle 'Never'.

		Never	Hardly ever	Occasionally	Often	Very often	Don't know
1	How often has your child had pain in the teeth, mouth or jaws?	1	2	3	4	5	6
2	How often has your child had difficulty drinking hot or cold beverages because of dental problems or dental treatments?	1	2	3	4	5	6
3	How often has your child had difficulty eating some foods because of dental problems or dental treatments?	1	2	3	4	5	6
4	How often has your child had difficulty pronouncing any words because of dental problems or dental treatments?	1	2	3	4	5	6
5	How often has your child missed preschool, day-care or school because of dental problems or dental treatments?	1	2	3	4	5	6
6	How often has your child had trouble sleeping because of dental problems or dental treatments?	1	2	3	4	5	6
7	How often has your child been irritable or frustrated because of dental problems or dental treatments?	1	2	3	4	5	6
8	How often as your child avoided smiling or laughing when around other children because of dental problems or dental treatments?	1	2	3	4	5	6
9	How often as your child avoided talking with other children because of dental problems or dental treatments?	1	2	3	4	5	6
10	How often have you or another family member been upset because of your child's dental problems or dental treatments?	1	2	3	4	5	6
11	How often have you or another family member felt guilty because of your child's dental problems or dental treatments?	1	2	3	4	5	6
12	How often have you or another family member taken time off from work because of your child's dental problems or dental treatments?	1	2	3	4	5	6
13	How often has your child had dental problems or dental treatments that had a financial impact on your family?	1	2	3	4	5	6

Appendix 2 – Bridgend Boundary Change

On the 1st April 2019 the responsibility for providing healthcare services for people in the Bridgend County Borough Council area moved from Abertawe Bro Morgannwg UHB to Cwm Taf UHB. The two Local Health Boards became Swansea Bay UHB and Cwm Taf Morgannwg UHB respectively.

The result of this boundary change is an increased school year one population size in Cwm Taf Morgannwg UHB (Table A1).

Historically the Bridgend County Borough Council area had been an area of comparatively better oral health in Abertawe Bro Morgannwg UHB (Table A2). Similarly, the two Unitary Authorities areas in Cwm Taf UHB (Merthyr Tydfil and Rhondda Cynon Taf) both typically had higher prevalence and severity of dental caries than in the Bridgend County Borough Council. As a result of these changes this report does not draw conclusions about changes in disease prevalence and severity for these Local Health Boards between the post boundary change inspections (2022/23, 2024/25) and those conducted prior to this point.

Local Health Board	Mean estimated school year one population 2011/12-2015/16	Mean estimated year 1 population 2022/23-2024/25
Abertawe Bro Morgannwg UHB/Swansea Bay UHB	5,704	3,884
Cwm Taf UHB/Cwm Taf Morgannwg UHB	3,311	4,687

Table A1: Population and number of examinations of two University Health Boards pre- and post-Bridgend boundary changes

		Cwm Taf UHB		Abertawe Bro Morgannwg UHB		
		Merthyr Tydfil	Rhondda Cynon Taf	Bridgend	Neath Port Talbot	Swansea
2011/12	Mean d3mft	1.93	1.87	1.13	2.2	1.57
	%d3fmt>0	51.8	50.4	35.5	51.7	44.2
	Mean d3mft if d3mft>0	3.73	3.72	3.20	4.27	3.56
	Mean d3t	0.89	1.16	0.68	1.62	1.25
2014/15	Mean d3mft	2.59	1.54	1.61	1.36	1.64
	%d3fmt>0	58.6	43.1	46.2	39.6	43.9
	Mean d3mft if d3mft>0	4.43	3.58	3.49	3.44	3.74
	Mean d3t	1.32	0.81	1.01	0.86	1.18
2015/16	Mean d3mft	2.08	1.54	1.09	1.29	1.32
	%d3fmt>0	56.5	44.9	33.9	37.0	35.0
	Mean d3mft if d3mft>0	3.68	3.42	3.20	3.49	3.76
	Mean d3t	1.21	0.95	0.66	0.87	0.89
		Cwm Taf Morgannwg UHB			Swansea Bay UHB	
2022/23	Mean d3mft	1.90	1.50	1.44	1.08	0.97
	%d3fmt>0	50.2	42.2	44.1	30.7	29.2
	Mean d3mft if d3mft>0	3.78	3.56	3.27	3.53	3.34
	Mean d3t	1.50	1.28	1.30	0.88	0.76
2024/25	Mean d3mft	1.33	1.07	0.89	1.18	1.09
	%d3fmt>0	34.8	29.9	27.2	31.6	28.0
	Mean d3mft if d3mft>0	3.84	3.58	3.27	3.74	3.89
	Mean d3t	1.04	0.84	0.68	0.94	0.88

Table A2: Clinical profiles of Cwm Taf Morgannwg UHB (formerly Cwm Taf UHB) and Swansea Bay UHB (formerly Abertawe Bro Morgannwg UHB) for 2007/08 to 2024/25

Appendix 3 – Results from Hywel Dda UHB in 2022/23

In 2022/23 children were examined in only two of the three unitary authorities sampled (Carmarthenshire and Pembrokeshire). In the 2024/25 inspections were undertaken in all three unitary authorities (Carmarthenshire, Pembrokeshire, and Ceredigion).

Historically, prevalence (%d3mft>0) and severity of dental caries at a whole population level in Ceredigion tends to be better than both Carmarthenshire and Pembrokeshire, however those with decay experience are likely to have broadly similar numbers of affected teeth (Table B1). As a result, caution should be exercised when making comparisons with results from Hywel Dda UHB 2022/23 to earlier or later inspections.

Hywel Dda Unitary Authorities	Inspection Year	Prevalence of dental caries experience (%d3mft>0)	Mean number of teeth with dental caries experience (d3mft)	Teeth with dental caries experience (d3mft) in those with untreated decay (d3t>0)
		Mean	Mean	Mean
Carmarthenshire	2007/08	53.2	2.25	4.22
	2011/12	30.6	0.97	3.18
	2014/15	25.6	0.83	3.25
	2015/16	29.6	1.08	3.63
	2022/23	26.7	0.74	2.89
	2024/25	25.7	0.77	3.02
Ceredigion	2007/08	35.7	1.62	4.55
	2011/12	28.7	1.23	4.27
	2014/15	22.8	0.76	3.35
	2015/16	23.9	0.78	3.25
	2022/23	-	-	-
	2024/25	23.2	0.68	2.91
Pembrokeshire	2007/08	44.9	1.84	4.10
	2011/12	38.8	1.55	3.99
	2014/15	30.9	0.15	3.39
	2015/16	22.8	0.75	3.29
	2022/23	31.1	1.04	3.33
	2024/25	26.7	0.85	3.17

Table B1: Clinical profiles of Carmarthenshire, Ceredigion and Pembrokeshire Unitary Authority areas 2007/08 to 2024/25