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# Adult Dental Health Survey 2009 – First Release

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**Author:** The NHS Information Centre, Dental and Eye Care Team

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# Summary Findings

This release presents some preliminary results from the 2009 Adult Dental Health Survey. A series of more detailed reports are due to be published in March 2011 alongside a Foundation Report with technical details of the survey.

- Overall, 94 per cent of adults in England, Wales and Northern Ireland were dentate<sup>1</sup>, only 6 per cent had not maintained this basic threshold of oral health.
- The proportion of people who were edentate<sup>2</sup> varied by country. In England 6 per cent of adults were edentate compared with 10 per cent in Wales. Seven per cent of adults in Northern Ireland were edentate.
  - Over the last 30 years the proportion of adults in England who were edentate has fallen by 22 percentage points from 28 per cent in 1978.
  - In Wales, the proportion of adults who were edentate has fallen 27 percentage points from 37 per cent in 1978.
  - In Northern Ireland, the proportion of adults who were edentate has fallen 26 percentage points from 33 per cent in 1979<sup>3</sup>.
- Eighty-six per cent of dentate adults had 21 or more natural teeth.
- The proportion of dentate adults with 21 or more natural teeth varied by country. In England 86 per cent of dentate adults had 21 or more natural teeth compared with 80 per cent of dentate adults in Wales. Eighty-four per cent of dentate adults in Northern Ireland had 21 or more natural teeth.
  - Over the last 30 years the proportion of adults in England who have 21 or more natural teeth has increased by 12 percentage points from 74 per cent in 1978.
  - In Wales the proportion of adults who have 21 or more natural teeth has increased by 9 percentage points from 71 per cent in 1978.
  - In Northern Ireland the proportion of adults who have 21 or more natural teeth has increased by 16 percentage points from 68 per cent in 1979.
- There was a clear socio-economic gradient in the proportion of adults who had 21 or more natural teeth ranging from 91 per cent of adults from managerial and professional occupation households to 79 per cent of adults from routine and manual occupation households.
- The majority of dentate adults (71 per cent) had no visible coronal caries<sup>4</sup>.
- The average number of teeth among all dentate adults was 25.6.
  - The average number of sound and untreated teeth was 17.8.
- Over three-fifths of dentate adults said they attended the dentist for regular check-ups.
  - The proportion of adults attending the dentist for regular check-ups increased in all three countries between 1978 and 2009 (1988 to 2009 in Northern Ireland<sup>5</sup>). The greatest increase was observed in Wales, up 30 percentage points from 39 per cent in 1978 to 69 per cent in 2009.
- Twelve per cent of all adults (who had ever been to the dentist) were classified as having extreme dental anxiety.
  - Extreme dental anxiety was more prevalent among women than men, 17 per cent compared with 8 per cent respectively.
  - There was a clear pattern of higher levels of dental anxiety among younger adults. Levels of extreme dental anxiety ranged from 15 per cent of adults aged 16 to 24 to 9 per cent of adults over 85.

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<sup>1</sup> Dentate, that is having at least one natural tooth

<sup>2</sup> Edentate, that is having no natural teeth

<sup>3</sup> The Northern Ireland ADHS was conducted in 1979

<sup>4</sup> Coronal refers to the surfaces of the crown of the tooth. Caries reflect a disease process that results in the demineralisation of the hard tissues of the tooth by microbial activity

<sup>5</sup> This question was asked for the first time in Northern Ireland in 1988

# Background

The 2009 Adult Dental Health Survey (ADHS) is the fifth in a series of national dental surveys that have been carried out every ten years since 1968. The main purpose of these surveys has been to get a picture of the dental health of the adult population and how this has changed over time.

The 2009 survey was commissioned by the NHS Information Centre for health and social care and was conducted on behalf of the Department of Health in England, the Welsh Assembly Health Department, and the Department of Health, Social Services and Public Safety in Northern Ireland. The survey was carried out in England, Wales and Northern Ireland only: Scotland decided not to participate in the 2009 survey.

The aims of the survey were to establish the condition of the natural teeth and supporting tissues; to investigate dental experiences, knowledge about and attitudes towards dental care and oral hygiene; to examine changes over time in dental health, attitudes and behaviour; and to monitor the extent to which dental health targets set by the Government are being met.

The survey consisted of a questionnaire interview with all adults aged over 16 years at all sampled households, and an oral examination of the mouth and teeth of all those adults who had at least one natural tooth.

The survey was managed by the Office for National Statistics working in consortium with the National Centre for Social Research, the Northern Ireland Statistics and Research Agency, and dental experts from the Universities of Birmingham, Cardiff, Dundee, Newcastle, and University College London.

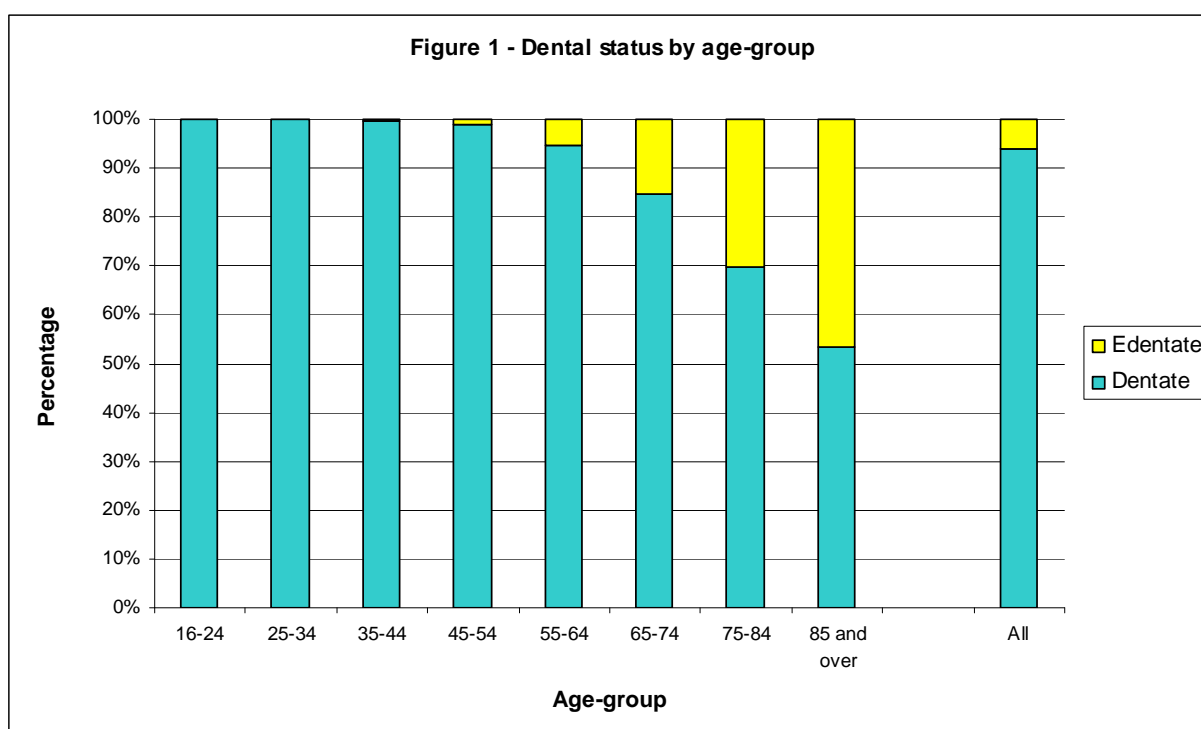
The sample size for the survey was 13,400 households (1,150 in each English Strategic Health Authority and Wales, and 750 households in Northern Ireland). Data collection for the survey took place between October 2009 and April 2010, and the final household interview response rate was 60 per cent.

A total of 11,380 individuals were interviewed, and 6,469 dentate adults were examined, making this the largest ever epidemiological survey of adult dental health in the United Kingdom.

# Loss of all natural teeth

The proportion of adults who have retained some of their natural teeth is an important indicator of the oral health of a population. Table 1 presents estimates of the proportion of adults who are dentate and edentate.

- The proportion of edentate adults has fallen to 6 per cent of adults in England, Wales and Northern Ireland collectively: overall 94 per cent of adults were dentate.
- The likelihood of being edentate increased with age:
  - 1 per cent of adults aged 45 to 54 were edentate, rising to 15 per cent of adults aged 65 to 74, and 47 per cent of adults over 85.
- For the first time in the ADHS series the majority of adults in each age-group (including those over 85) were dentate (see Figure 1).
- A greater proportion of men than women were dentate (95 per cent compared with 93 per cent).
- The proportion of people who were edentate also varied by country. In Wales 10 per cent of adults were edentate compared with 6 per cent in England. Seven per cent of adults in Northern Ireland were edentate.
- Socio-economic variations were also observed in the proportion of dentate adults:
  - 97 per cent of adults from managerial and professional occupation households were dentate;
  - 95 per cent of adults from intermediate occupation households were dentate;
  - 90 per cent of adults from routine and manual occupation households were dentate.



**Table 1 - Dental status by age, sex, country, and socio-economic classification of household**

All adults

England, Wales, Northern Ireland: 2009

Characteristics of adults		Dental status		Unweighted base	Weighted base (000s)
		Dentate	Edentate		
<b>All</b>	%	94	6	11,380	45,629
<b>Age</b>					
16-24	%	100	-	1,040	6,682
25-34	%	100	0	1,500	7,250
35-44	%	100	0	2,050	8,410
45-54	%	99	1	2,040	6,832
55-64	%	95	5	1,960	7,304
65-74	%	85	15	1,530	4,730
75-84	%	70	30	1,010	3,516
85 and over	%	53	47	240	904
<b>Sex and age</b>					
<b>Men</b>					
All	%	95	5	5,090	22,145
16-24	%	100	-	480	3,400
25-34	%	100	0	630	3,624
35-44	%	100	0	860	4,168
45-54	%	98	2	930	3,328
55-64	%	96	4	910	3,626
65-74	%	84	16	710	2,254
75-84	%	73	27	480	1,460
85 and over	%	72	28	90	284
<b>Women</b>					
All	%	93	7	6,290	23,484
16-24	%	100	-	560	3,282
25-34	%	100	0	870	3,626
35-44	%	99	1	1,200	4,242
45-54	%	99	1	1,110	3,504
55-64	%	93	7	1,050	3,678
65-74	%	85	15	820	2,476
75-84	%	67	33	530	2,056
85 and over	%	45	55	150	620
<b>Country</b>					
England	%	94	6	9,660	41,798
Wales	%	90	10	1,000	2,437
Northern Ireland	%	93	7	720	1,394
<b>Socio-economic classification of household<sup>1</sup></b>					
Managerial and professional	%	97	3	4,030	16,372
Intermediate occupations	%	95	5	1,010	7,913
Routine and manual occupations	%	90	10	3,830	15,387

<sup>1</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

Shaded figures indicate the estimates are unreliable and any analysis using these figures may be invalid. Any use of these shaded figures must be accompanied by this disclaimer.

Figure 2 and Table 2 set out the proportion of people who were edentate over time.

- The proportion of adults in England who were edentate has fallen by 22 percentage points in the last 30 years from 28 per cent in 1978 to 6 per cent in 2009.
  - Between the 1998 and 2009 surveys the proportion of the adult population in England who were edentate fell by 6 percentage points, from 12 per cent to 6 per cent.
- In both Wales and Northern Ireland the proportion of adults who were edentate has also fallen:
  - in 1978 the proportion of people who were edentate in Wales was 37 per cent, whereas in 2009 it was 10 per cent;
  - in Northern Ireland the rate has fallen 26 percentage points from 33 per cent (in 1979<sup>6</sup>) to 7 per cent in 2009.

Figure 2 - Edentate adults by country: 1978- 2009

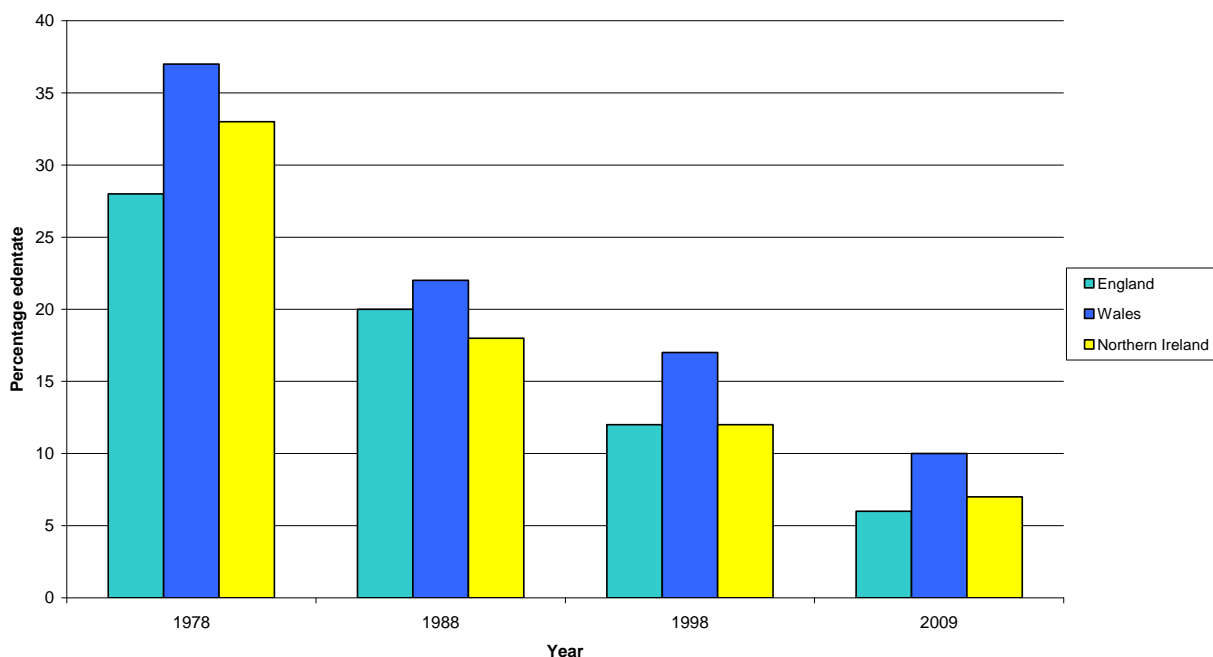


Table 2 - Edentate adults by country: 1978-2009

Country	Edentate			
	1978	1988	1998	2009
Percentage				
England	28	20	12	6
Wales	37	22	17	10
Northern Ireland <sup>1</sup>	33	18	12	7

<sup>1</sup> Northern Ireland survey conducted in 1979

<sup>6</sup> The Northern Ireland ADHS was conducted in 1979



# Functional dentition - adults with 21 or more teeth

A complete dentition of between 28 and 32 teeth at any age is a rarity, however, the more teeth adults keep over their lifetime the better their oral health and function. Attributes such as eating comfortably and socialising without embarrassment can be related directly to the number and distribution of teeth, described as functional dentition. In the present survey, functional dentition was defined as achieving a threshold of 21 or more standing teeth.

- Eighty-six per cent of dentate adults had 21 or more natural teeth. However, the proportion of adults who had 21 or more teeth fell significantly as age increased.
- There was no difference between the proportion of men and women who had 21 or more natural teeth (86 per cent each).
- A smaller proportion of adults in Wales than in England had achieved the threshold required for functional dentition: 80 per cent in Wales compared with 86 per cent in England.
- In Northern Ireland, 84 per cent of adults had 21 or more natural teeth.
- There was a clear socio-economic gradient in the proportion of adults who had achieved the threshold required for functional dentition:
  - 91 per cent of adults from managerial and professional occupation households had 21 or more natural teeth;
  - 85 per cent of adults from intermediate occupation households had 21 or more natural teeth;
  - 79 per cent of adults from routine and manual occupation households had 21 or more natural teeth.

**Table 3 - The proportion of adults with 21 or more natural teeth age, sex, country, and socio-economic classification of household**

Dentate adults		England, Wales, Northern Ireland: 2009			
		Number of natural teeth		Unweighted base	Weighted base (000s)
Characteristics of dentate adults		21 or more	Fewer than 21		
All	%	86	14	6,470	42,893
<b>Age</b>					
16-24	%	100	0	650	6,718
25-34	%	99	1	910	7,091
35-44	%	97	3	1,280	8,491
45-54	%	91	9	1,200	6,598
55-64	%	74	26	1,160	7,059
65-74	%	61	39	810	4,103
75-84	%	40	60	390	2,341
85 and over	%	26	74	80	492
<b>Sex</b>					
Men	%	86	14	2,960	21,078
Women	%	86	14	3,510	21,815
<b>Country</b>					
England	%	86	14	5,620	39,386
Wales	%	80	20	420	2,209
Northern Ireland	%	84	16	430	1,298
<b>Socio-economic classification of household<sup>1</sup></b>					
Managerial and professional occupations	%	91	9	2,590	16,815
Intermediate occupations	%	85	15	1,180	7,791
Routine and manual occupations	%	79	21	2,020	13,697

<sup>1</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

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Figure 3 and Table 4 set out changes over time in the proportion of adults with 21 or more natural teeth.

- Since 1978 there has been a 12 percentage point increase in the proportion of adults in England who have 21 or more natural teeth:
  - in 1978, 74 per cent of adults had 21 or more teeth, compared with 86 per cent in 2009.
- Similar improvements have been observed in Wales and Northern Ireland:
  - the proportion of adults who have 21 or more natural teeth in Wales increased by 9 percentage points, from 71 per cent in 1978 to 80 per cent in 2009;
  - in Northern Ireland the improvement was even larger, up 16 percentage points from 68 per cent in 1979 to 84 per cent in 2009.

Figure 3 - The proportion of adults with 21 or more natural teeth by country: 1978 - 2009

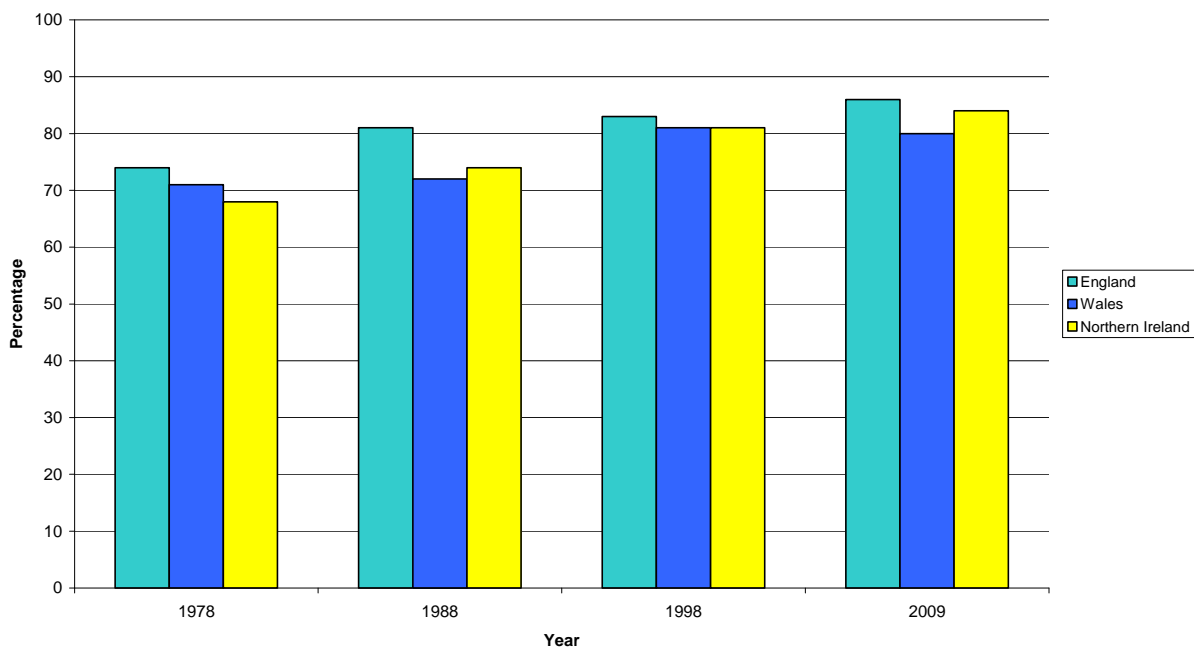


Table 4 - The proportion of adults with 21 or more natural teeth by country: 1978-2009

Country	England, Wales, Northern Ireland: 1978-2009			
	1978	1988	1998	2009
	<b>Has 21 or more natural teeth</b>			
	<b>Percentage</b>			
England	74	81	83	86
Wales	71	72	81	80
Northern Ireland <sup>1</sup>	68	74	81	84

<sup>1</sup> Northern Ireland survey conducted in 1979

# Summary of tooth condition

Another important measure of oral health is the retention of natural teeth in a sound and untreated state that is, having no visible dental caries (dental decay) nor any detectable restorations (fillings, crowns or veneers). Tables 5 and 6 present estimates for the condition of the coronal surfaces of the tooth only<sup>7</sup>.

## Sound and untreated teeth

- The average number of teeth among all dentate adults was 25.6, and the average number of sound and untreated teeth was 17.8.
- The number of sound and untreated teeth varied significantly by age:
  - adults aged up to 44 had over 20 sound and untreated teeth on average, however this declined steeply above 45 years of age.
- Men had more sound and untreated teeth on average than women, 18.2 compared with 17.4.
- The average number of sound and untreated teeth among dentate adults also varied by country: adults in England had more sound and untreated teeth (17.9) than adults in Wales (16.2) and Northern Ireland (15.8).
- There were also some differences between adults from different socio-economic groups:
  - adults from managerial and professional occupation households had 18.2 sound and untreated teeth on average;
  - adults from routine and manual occupation households had 17.5 on average;
  - adults from intermediate occupation households had 17.0 on average.

## Restored, otherwise sound teeth

- Dentate adults in England, Wales and Northern Ireland had 6.8 restored but otherwise sound teeth, on average. This varied significantly by age with adults aged 55 to 64 years having the highest number of restored, otherwise sound, teeth (10.1) while the youngest adults, aged 16 to 24, the lowest number of restored, otherwise sound, teeth on average (1.8).
- The average number of restored but otherwise sound teeth rose steadily up to age 64 and then began to fall back, reflecting a reduced total number of teeth among older adults.
- Women had, on average, more restored but otherwise sound teeth than men, 7.2 for women compared with 6.4 for men.
- Adults in Northern Ireland had 8.4 restored but otherwise sound teeth, on average. This was significantly higher than adults in England and Wales (6.7 each).
- Adults from routine and manual occupation households had fewer restored but otherwise sound teeth on average (5.7) than adults from intermediate occupation households (7.3) and managerial and professional occupation households (7.6).

## Decayed or unsound teeth

- The average number of decayed or unsound teeth<sup>8</sup> was 1.0.
- The average number of decayed or unsound teeth varied by age.
- On average men had more decayed or unsound teeth than women, 1.2 for men, compared with 0.8 for women.
- There was a strong relationship between socio-economic status and average number of decayed and unsound teeth:
  - adults from routine and manual occupation households had almost double the number of decayed or unsound teeth (1.3) than adults from managerial and professional occupation households (0.7).

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<sup>7</sup> The coronal surfaces only were presented in order to make comparisons with estimates from the 1998 survey. The main release of the ADHS in March 2011 will include estimates for tooth condition that considers both the coronal and root surfaces of the tooth.

<sup>8</sup> Teeth can be unsound because of decay or because of failure of a restoration without decay, but both situations generally require some treatment.

Table 5 - Summary of tooth condition (coronal surfaces only) by age, sex, country, and socio-economic classification of household

<i>Dentate adults</i>		<i>England, Wales, Northern Ireland: 2009</i>					
Characteristics of dentate adults	Mean number of teeth	Mean number of sound and untreated teeth	Mean number of restored, otherwise sound teeth	Mean number of decayed or unsound teeth	Unweighted base	Weighted base (000s)	
All	25.6	17.8	6.8	1.0	6,470	42,893	
<b>Age</b>							
16-24	28.6	25.9	1.8	0.9	650	6,718	
25-34	28.8	23.7	3.8	1.2	910	7,091	
35-44	27.6	20.1	6.6	0.9	1,280	8,491	
45-54	26.0	15.1	9.9	1.0	1,200	6,598	
55-64	23.1	11.9	10.1	1.0	1,160	7,059	
65-74	20.9	10.5	9.5	0.9	810	4,103	
75-84	17.1	8.5	7.5	1.0	390	2,341	
85 and over	14.0	6.8	6.3	0.7	80	492	
<b>Sex</b>							
Men	25.8	18.2	6.4	1.2	2,960	21,078	
Women	25.5	17.4	7.2	0.8	3,510	21,815	
<b>Country</b>							
England	25.7	17.9	6.7	1.0	5,620	39,386	
Wales	24.2	16.2	6.7	1.2	420	2,209	
Northern Ireland	25.0	15.8	8.4	0.8	430	1,298	
<b>Socio-economic classification of household<sup>1</sup></b>							
Managerial and professional occupations	26.5	18.2	7.6	0.7	2,590	16,815	
Intermediate occupations	25.3	17.0	7.3	0.9	1,180	7,791	
Routine and manual occupations	24.6	17.5	5.7	1.3	2,020	13,697	

<sup>1</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

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## Decay on the crowns of the teeth

- The majority of adults (71 per cent) had no visible caries on the surfaces of the crowns of their teeth: 29 per cent had visible caries (primary or secondary) on one or more coronal surfaces.
- The proportion of adults with visible coronal caries varied between age-groups, but with no obvious pattern: it was highest among adults aged 25 to 34 years (36 per cent) and lowest in adults 65 to 74 (22 per cent).
- A greater proportion of men than women had visible caries on the coronal surfaces, 32 per cent for men compared with 26 per cent for women.
- In Wales 43 per cent of adults had visible coronal caries compared with 28 per cent in both Northern Ireland and England.
- A clear socio-economic gradient on this clinical measure of oral health was also apparent:
  - 24 per cent of adults from managerial and professional occupation households had teeth with visible coronal caries;
  - 28 per cent of adults from intermediate occupation households had visible coronal caries;
  - 35 per cent from routine and manual occupation households had visible coronal caries.

**Table 6 - Any teeth with active caries (coronal surfaces only), by age, sex, country, and socio-economic classification of household**

<i>Dentate adults</i>		<i>England, Wales, Northern Ireland: 2009</i>			
Characteristics of dentate adults		Any teeth with active caries		Unweighted base	Weighted base (000s)
		Yes	No		
<b>All</b>	%	29	71	6,470	42,893
<b>Age</b>					
16-24	%	30	70	650	6,718
25-34	%	36	64	910	7,091
35-44	%	30	70	1,280	8,491
45-54	%	26	74	1,200	6,598
55-64	%	26	74	1,160	7,059
65-74	%	22	78	810	4,103
75-84	%	35	65	390	2,341
85 and over	%	27	73	80	492
<b>Sex</b>					
Men	%	32	68	2,960	21,078
Women	%	26	74	3,510	21,815
<b>Country</b>					
England	%	28	72	5,620	39,386
Wales	%	43	57	420	2,209
Northern Ireland	%	28	72	430	1,298
<b>Socio-economic classification of household<sup>1</sup></b>					
Managerial and professional occupations	%	24	76	2,590	16,815
Intermediate occupations	%	28	72	1,180	7,791
Routine and manual occupations	%	35	65	2,020	13,697

<sup>1</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

Shaded figures indicate the estimates are unreliable and any analysis using these figures may be invalid. Any use of these shaded figures must be accompanied by this disclaimer.

- Since 1998, the proportion of adults in England with visible coronal caries has fallen 18 percentage points from 46 per cent in 1998 to 28 per cent in 2009.
- The change in Northern Ireland has been in a similar direction, falling 24 percentage points from 52 per cent in 1998 to 28 per cent in 2009.
- In Wales there has been a small increase in this clinical outcome since 1998 – 41 per cent in 1998 compared to 43 per cent in 2009.

**Table 7 - Any teeth with visible caries (coronal surfaces only) by country: 1998-2009\***

<i>Dentate adults</i>		<i>England, Wales, Northern Ireland: 1998-2009</i>	
Country		Any caries	
		1998	2009
		Percentage	
England		46	28
Wales		41	43
Northern Ireland		52	28

\* Time series only available for 1998

# Regular dental attendance

Since the first ADHS in 1968 a question has been included asking participants to indicate if they attend the dentist for a regular check-up, an occasional check-up or only when they are having trouble with their teeth. This question aims to identify the usual reason why an individual attends the dentist rather than the frequency of attendance.

- Over three-fifths (61 per cent) of dentate adults said that they attended the dentist for regular check-ups;
  - 10 per cent said that they went for an occasional check-up;
  - 27 per cent said that they attended only when they had trouble with their teeth;
  - 2 per cent they never visited the dentist.
- Dentate women were more likely than men to attend for regular check-ups, 68 per cent for women compared with 54 per cent for men; a greater proportion of men (32 per cent) than women (22 per cent) said that they attended only when having trouble with their teeth.
- At 69 per cent Wales had the highest proportion of dentate adults reporting regular attendance, this compares with 61 per cent in England and 60 per cent in Northern Ireland.
- There was also variation between the different socio-economic groups in terms of the proportion of adults who attend for regular check-ups:
  - 66 per cent of adults from managerial and professional occupation households attend regularly;
  - 62 per cent of adults from intermediate occupation households attend regularly;
  - 55 per cent of adults from routine and manual occupation households attend regularly.

**Table 8 - General dental attendance by age, sex, country, and socio-economic classification of household**

Characteristics of adults	General dental attendance				Unweighted base	Weighted base (000s)	
	Regular check-up	Occasional check-up	Only when having trouble	Never been to the dentist			
<b>Dentate adults</b>	<i>England, Wales, Northern Ireland: 2009</i>						
<b>All</b>	%	61	10	27	2	10,560	42,842
<b>Age</b>							
16-24	%	51	14	33	2	1,040	6,676
25-34	%	44	14	38	3	1,500	7,240
35-44	%	60	11	27	2	2,040	8,367
45-54	%	67	7	25	1	2,010	6,740
55-64	%	72	6	21	1	1,850	6,894
65-74	%	77	5	17	1	1,290	3,988
75-84	%	70	6	22	2	700	2,456
85 and over	%	65	5	26	4	130	481
<b>Sex</b>							
Men	%	54	11	32	2	4,740	21,054
Women	%	68	9	22	1	5,820	21,788
<b>Country</b>							
England	%	61	10	27	2	9,010	39,345
Wales	%	69	7	23	1	890	2,200
Northern Ireland	%	60	9	30	2	660	1,297
<b>Socio-economic classification of household<sup>1</sup></b>							
Managerial and professional	%	66	11	22	1	3,910	15,953
Intermediate occupations	%	62	8	28	2	1,900	7,530
Routine and manual occupations	%	55	9	33	2	3,360	13,808

<sup>1</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

Table 9 shows changes in dental attendance over time.

- The proportion of adults attending the dentist for regular check-ups increased in all three countries between 1978 and 2009 (1988 to 2009 in Northern Ireland).
- The greatest increase was observed in Wales, up thirty percentage points from 39 per cent in 1978 to 69 per cent in 2009.

**Table 9 - Regular dental attendance by country: 1978 to 2009**

*Dentate adults*

Country	Regular dental attendance			
	1978	1988	1998	2009
	Percentage			
England	44	50	60	61
Wales	39	48	59	69
Northern Ireland <sup>1</sup>	-	42	51	60

<sup>1</sup> Data for 1978 not available

## Levels of dental anxiety

The Modified Dental Anxiety Scale (MDAS) was used to measure anxiety. The MDAS directs a series of questions to individuals asking them to rate the level of anxiety that they would feel if they were in particular dental situations including needing to go for dental treatment; sitting in a dentist's waiting room; waiting to have a tooth drilled; waiting to have a scale and polish; and needing to have a local anaesthetic injection in the gum.

- Over half (51 per cent) of adults who had ever been to the dentist were classified as having low/no dental anxiety<sup>9</sup>; over a third (36 per cent) were classified as having moderate dental anxiety; and 12 per cent of adults were classified as having extreme dental anxiety.
- There was a clear pattern towards overall higher levels of dental anxiety among younger adults:
  - 15 per cent of adults aged 16 to 24 and 25 to 34 had extreme dental anxiety compared with 9 per cent of adults over 85. (see Figure 4)
- Extreme dental anxiety was more prevalent among women than men, 17 per cent compared with 8 per cent respectively.
- On two MDAS dimensions, anxiety about going for dental treatment tomorrow and anxiety about going for a scale and polish, the majority of adults reported that they would not be anxious (53 and 62 per cent respectively).
- Adults were evenly split between saying that they would not be anxious, and would have some anxiety, about sitting in a dentist's waiting room, however the majority of adults said that they would be anxious if they were about to have a tooth drilled (72 per cent) or have an injection into their gum (70 per cent).
- Thirty per cent of all adults were extremely anxious about having a tooth drilled and 28 per cent were extremely anxious about having an injection.
- A greater proportion of women than men had dental anxiety on all five dimensions of the MDAS scale.

<sup>9</sup> Scores on the MDAS questions range from one (not anxious) to five (extremely anxious). A total MDAS score of between five and nine indicates low/no dental anxiety, a score of between 10 and 18 indicates moderate dental anxiety and a total score of 19 or more indicates extreme dental anxiety. See Humphris GM, Morrison T, Lindsay SJE. The modified dental anxiety scale; UK norms and evidence for validity. Community Dental Health 1985; 12; 143-150 for more details

- There were differences between socio-economic groups in terms of the proportion of adults suffering from extreme dental anxiety:
  - 14 per cent of adults from routine and manual occupation households had extreme dental anxiety, compared with 10 per cent of adults from managerial and professional occupation households.
  - This pattern was shown across all dimensions of the MDAS scale.

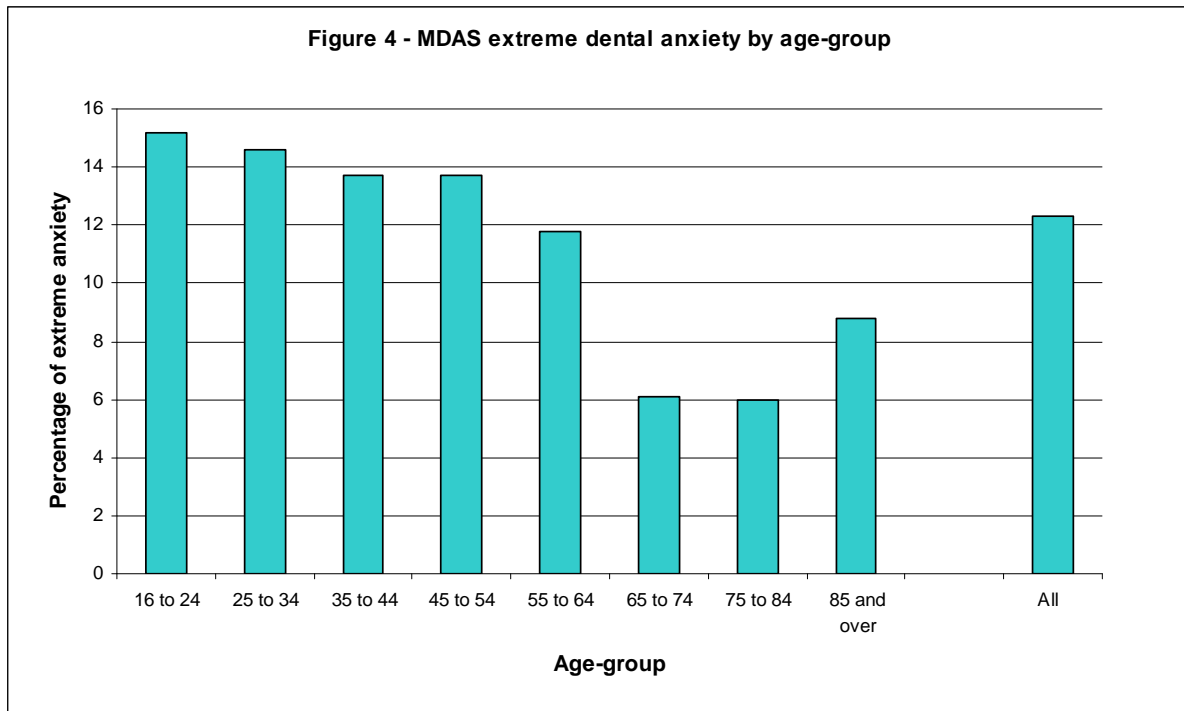




Table 10 - Modified Dental Anxiety Scale by age, sex, country, and socio-economic classification of household

Adults who have ever been to dentist <sup>1</sup> England, Wales, Northern Ireland: 2009

Characteristics of adults		Anxiety going for treatment tomorrow			Anxiety in the waiting room			Anxiety if tooth drilled			Unweighted base	Weighted base (000s)
		Not anxious	Slightly/fairly anxious	Very/extremely anxious	Not anxious	Slightly/fairly anxious	Very/extremely anxious	Not anxious	Slightly/fairly anxious	Very/extremely anxious		
All	%	53	34	13	50	35	15	28	42	30	10,990	43,967
<b>Age</b>												
16 to 24	%	55	31	13	48	36	16	20	38	42	1,010	6,463
25 to 34	%	53	31	16	48	35	17	22	43	36	1,450	6,979
35 to 44	%	51	35	14	47	36	17	26	41	33	2,010	8,176
45 to 54	%	48	36	15	47	37	16	26	46	28	2,010	6,730
55 to 64	%	51	35	14	49	35	15	31	43	25	1,930	7,171
65 to 74	%	59	34	8	58	34	8	41	41	18	1,460	4,485
75 to 84	%	60	32	9	60	31	10	42	39	18	920	3,177
85 and over	%	61	32	7	64	29	8	44	35	21	210	785
<b>Sex</b>												
Men	%	61	30	9	58	32	10	35	43	22	4,900	21,293
Women	%	46	37	17	43	38	19	21	41	38	6,090	22,674
<b>Country</b>												
England	%	53	33	13	50	35	15	28	42	30	9,330	40,272
Wales	%	55	34	11	51	35	14	33	41	26	960	2,353
Northern Ireland	%	51	36	13	50	33	17	32	39	29	700	1,342
<b>Socio-economic classification of household <sup>2</sup></b>												
Managerial and professional occupations	%	55	34	11	52	36	12	26	47	27	3,960	16,051
Intermediate occupations	%	53	33	14	49	36	15	29	41	29	1,940	7,587
Routine and manual occupations	%	52	33	15	49	34	17	31	36	33	3,640	14,618

Characteristics of adults		Anxiety for scale and polish			Anxiety for injection			Total MDAS score			Unweighted base	Weighted base (000s)
		Not anxious	Slightly/fairly anxious	Very/extremely anxious	Not anxious	Slightly/fairly anxious	Very/extremely anxious	5-9	10-18	19+		
All	%	62	30	8	30	41	28	51	36	12	10,990	43,967
<b>Age</b>												
16 to 24	%	56	35	9	24	35	42	43	42	15	1,010	6,463
25 to 34	%	61	31	8	23	42	35	45	40	15	1,450	6,979
35 to 44	%	60	30	10	27	43	30	48	39	14	2,010	8,176
45 to 54	%	57	32	10	28	45	27	51	35	14	2,010	6,730
55 to 64	%	63	27	9	33	43	24	55	33	12	1,930	7,171
65 to 74	%	71	24	5	44	40	16	63	31	6	1,460	4,485
75 to 84	%	73	22	5	45	38	17	63	31	6	920	3,177
85 and over	%	72	20	8	46	37	17	63	28	9	210	785
<b>Sex</b>												
Men	%	70	25	5	38	42	21	60	32	8	4,900	21,293
Women	%	55	34	11	24	41	36	43	40	17	6,090	22,674
<b>Country</b>												
England	%	62	29	8	30	41	29	51	37	12	9,330	40,272
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Routine and manual occupations	%	62	28	10	33	36	31	50	35	14	3,640	14,618

<sup>1</sup> Only adults who had ever been to a dentist were asked the MDAS questions

<sup>2</sup> Excludes people in households where the household reference person was not interviewed. Respondents whose household reference person was a full-time student, in the Armed Forces, had never worked or were long-term unemployed are not shown as separate categories but are included in the total.

## Technical details

1. Comparative estimates for some oral health indicators for Scotland are available from the *Scottish Health Survey* <http://www.scotland.gov.uk/Publications/2010/09/23154223/24>.
2. Standard errors and confidence intervals for the survey estimates are published in a separate document at [www.ic.nhs.uk/pubs/dentalsurvey09](http://www.ic.nhs.uk/pubs/dentalsurvey09).
3. Socio-economic status was based on the occupation and industry sector of the Household Reference Person (HRP) which was coded using the Standard Occupation Classification (SOC2000) and Standard Industrial Classification (SIC2000). The HRP is the sole individual in a one person household, or in households where there are more than one adults resident, the individual with the highest personal income from all sources.
4. Northern Ireland did not participate in the 1978 ADHS, however a similar survey was conducted in 1979 in Northern Ireland. Estimates from the 1979 survey in Northern Ireland have been included in the trend tables to give a picture of how oral health and behaviour has changed over the last thirty years.
5. Trend data is only presented for those indicators for which, the specifications for which have not changed between 1998 and 2009. Also, trend data is only presented for country level estimates. As previous surveys included Scotland, overall comparison over time of age, sex, and socio-economic estimates are not appropriate.
6. The summary of tooth condition estimates are only based on a consideration of the coronal surfaces of the tooth, they do not include the condition of the roots.
7. Estimates of the proportion of visible coronal caries in Wales have been investigated for potential methodological error. The NHS IC is satisfied that these estimates are based on sound and robust methodology.

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Responsible statistician

Phil Cooke  
Section Head

For further information:

[www.ic.nhs.uk](http://www.ic.nhs.uk)

0845 300 6016

[enquiries@ic.nhs.uk](mailto:enquiries@ic.nhs.uk)

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