



Patterns of care and service use

**Children's Dental Health in the United Kingdom
2003**

John Morris
Liz Pendry
Rachael Harker

December 2004

© Crown copyright

Office for National Statistics
1 Drummond Gate
London SW1V 2QQ
Tel: 020 7533 5091
Fax: 020 7533 9292

Table of Contents

LIST OF TABLES	III
THE 2003 CHILDREN'S DENTAL HEALTH SURVEY	V
ACKNOWLEDGEMENTS	VI
NOTES ON THE TABLES AND TEXT	VII
SUMMARY	VIII
INTRODUCTION	1
VISITING THE DENTIST	2
CHILDREN'S DENTAL ATTENDANCE PATTERN	4
MOTHERS' AND CHILDREN'S DENTAL ATTENDANCE PATTERNS	5
REASON FOR LAST DENTAL VISIT	7
DENTAL SERVICES USED	9
EXPERIENCE OF DENTAL TREATMENT	11
BARRIERS TO ACCESS	16

List of Tables

Table 1 Proportion of children who had never visited the dentist by age and social class of household (United Kingdom, 1983, 1993, 2003)	2
Table 2 Proportion of children who had never visited the dentist by country (United Kingdom, 1983, 1993, 2003)	3
Table 3 Age of first visit to the dentist by age (United Kingdom, 1983, 1993, 2003)	3
Table 4 Children's reported dental attendance patterns by age and socio-economic classification (NS-SEC) of household (United Kingdom, 2003)	4
Table 5 Proportion of children who were aged below five at first dental visit by age and mother's dental attendance pattern (United Kingdom, 1993, 2003)	5
Table 6 Proportion of children who attended the dentist regularly by age and mother's dental attendance pattern (United Kingdom, 1993, 2003)	6
Table 7 Proportion of children who were regular attenders by age and mother's attendance pattern 2003 (United Kingdom, 2003)	6
Table 8 Proportion of children who were attended the dentist in the previous year by child attendance pattern 2003 (United Kingdom, 2003)	7
Table 9 Reason for last dental visit by age and socio-economic status (NS_SEC) of household (United Kingdom, 2003)	8
Table 10 Dental services used by age (United Kingdom, 2003)	9
Table 11 Dental services used by age and socio-economic classification (NS-SEC) of household (United Kingdom, 2003)	10
Table 12 Experience of paying for dental treatment by age	10
Table 13 Proportion of children who had ever had an extraction by age and social class of household (United Kingdom, 1983, 1993, 2003)	11
Table 14 Proportion of children who had ever had an extraction by age and country (United Kingdom, 1983, 1993, 2003)	12

Table 15 Proportion of children who had ever had a tooth filled by age and social class of household (United Kingdom, 1983, 1993, 2003)	13
Table 16 Proportion of children who had ever had a tooth filled by age and country (United Kingdom, 1983, 1993, 2003).....	13
Table 17 Proportion of children who have had a general anaesthetic and teeth taken out by age and country (United Kingdom, 2003)	14
Table 18 Proportion of children who had visited the dentist and had never had an extraction or filling by age and social class of household (United Kingdom, 1983, 1993, 2003).....	14
Table 19 Proportion of children who had visited the dentist and had never had an extraction or filling by age and country (United Kingdom, 1983, 1993, 2003)	14
Table 20 Proportion of children attending the dentist who were accompanied by age and country (United Kingdom, 2003)	15
Table 21 Anxiety about attending and reported attendance patterns by age and attendance pattern (United Kingdom, 2003).....	16
Table 22 Proportion of children reporting experiencing difficulties in finding an NHS dentist by age (United Kingdom, 2003).....	17
Table 23 Time period when difficulties were experienced in finding an NHS dentist by age (United Kingdom, 2003)	17
Table 24 Proportion of children reporting different reasons for experiencing difficulty finding a dentist willing to treat child on the NHS by when this was (United Kingdom, 2003).....	17

The 2003 Children's Dental Health Survey

The 2003 Children's Dental Health Survey, commissioned by the four United Kingdom Health Departments, is the fourth in a series of national children's dental health surveys that have been carried out every 10 years since 1973 in England and Wales and in the whole of the UK since 1983.

The survey provides information on the dental health of children in the United Kingdom, measures changes in oral health since the last survey in 1993 and provides information on children's experiences of dental care and treatment and their oral hygiene.

The 2003 survey was based upon a representative sample of children aged 5, 8, 12 and 15 years of age attending government maintained and independent schools in the UK. A total of 12698 children were sampled within participating schools and asked to take part in a dental examination at school. In total 10381 children were examined, a response rate of 82%. Background data on children's oral hygiene and dental care and were requested by questionnaire from the parents of a random sub-sample of 5480 examined children. In total, 3342 questionnaires were returned, a response rate of 61%.

Details of the survey methodology can be found in the Children's Dental Health in the United Kingdom 2003 Technical Report available at

<http://www.statistics.gov.uk/children/dentalhealth>

Acknowledgements

Thanks are due to everyone who contributed to the 2003 Children's Dental Health Survey and the production of this report. In particular colleagues from the Dental Schools of the Universities of Birmingham, Dundee, Newcastle and Wales, the Dental Health Services Research Unit, Dundee and the Central Survey Unit of the Northern Ireland Statistics and Research Agency, the dentists and dental nurses who carried out the examinations (a list of dentists and dental nurses can be found in the Technical Report).

The examinations took place in schools. Local Education Authorities, headteachers and school staff gave their help and co-operation in the administration of the study. Most importantly, thanks go to the children who were examined, and the parents who completed questionnaires about their children's dental background.

Particular acknowledgement goes to Jan Gregory (1946–2004) for her considerable contribution to the series of adult and children's dental health surveys, as well as a wide range of other ONS surveys.

Notes on the tables and text

Proportionately larger samples were selected in Wales and Northern Ireland than in England to provide estimates for these three countries within the UK. Deprived schools were also oversampled in relation to non-deprived schools to provide estimates for school deprivation status groups. The data needed to be reweighted in order to produce representative figures for the UK as a whole. Details of the weighting procedure are provided in the CDH technical report.

All estimates presented in this report are weighted. Weighted bases are provided for UK estimates and unweighted sample sizes are provided for individual country comparisons.

There was no oversampling in Scotland relative to England as a separate analysis for Scotland was not required by the Scottish Executive.

Differences cited in the text are statistically significant ($p < 0.05$) unless otherwise stated.

A dash in a table indicates a zero value, while an asterisk indicates a proportion of less than 0.5% or a mean of less than 0.05.

Figures presented in parentheses [] indicate a low base number of respondents and results are indicative only.

Summary

This report presents information on the reported use of dental services by children and their reported experience of different kinds of dental treatment. It also presents information on dental anxiety and access to dental services.

At age five 79% of children had visited the dentist but not had an extraction or filling, 16% had received an extraction or filling, and 6% had never visited the dentist (figures may not add to 100 due to rounding). One in ten had experienced dental extraction and 5% had experienced both dental extraction and a general anaesthetic for dental procedures by this age.

Parents of 31% of five-year-olds in 2003 reported that their child had first visited the dentist before the age of two years compared with 7% in 1983. Among children from social classes IV and V 13% of five-year-olds had never visited the dentist compared with 2% of children from social classes I, II and III non-manual.

Nearly all (92%) of five-year-olds whose mother reported attending the dentist regularly had first visited the dentist before the age of five compared with 55% of children whose mother reported only attending when experiencing symptoms.

The main reason given for initiating the last course of treatment was a check up or following a reminder from the dentist; between 82% and 89% of children across all age groups.

Nine out of ten fifteen-year-olds reported having used general dental services and only 7% reported only ever having used community or school dental services. The use of dental services outside of the NHS remains low; 1% of five-year-olds and 6% of fifteen-year-olds were reported to have received dental treatment that was paid for.

Around half of children aged fifteen reported having ever had a tooth filled compared with nine out of ten children in 1983. Around half reported having had a tooth extracted compared with nearly three quarters in 1983. Around a quarter of all children were reported to have some anxiety about attending the dentist and around one in ten of fifteen-year-olds were reported as having anxiety that was a barrier to normal asymptomatic attendance.

Introduction

Reported use of dental services is an important indicator of attitudes to oral health and dental care. Similarly, reported experience of dental services indicates choices that have been made by children and their parents or carers and how accessible and appropriate certain forms of dental treatment may have been. This is essential to understanding how changing patterns of disease amongst children are linked to dental service uptake and whether inequalities in oral health are matched with inequalities in service use.

While it is possible to draw some conclusions about a child's dental history from the state of their mouth, this gives an incomplete picture as some previously diseased or treated teeth may have fallen out naturally or been extracted. Asking parents about their child's lifetime experience of dentistry gives an opportunity to build a more complete picture than would be available from the clinical examination alone. When combined with information on maternal attendance it also allows an examination of how a mother's attendance pattern may influence that of their child. This report also presents information on dental anxiety and access to dental services. Information on attitudes to oral health was reported in Topic Report 3: Periodontal condition, hygiene behaviour and attitudes to oral health.

This report is wholly based upon responses to the questionnaire and, where appropriate, comparisons are made with responses to questions from the 1993 and 1983 surveys. Where trends in aspects of treatment provision are examined in relation to the socio-economic classification of the household, Social Class (based on the Registrar General's Standard Occupational Classification, 1991) is used as in previous surveys. In 2001 the National Statistics Socio-economic Classification (NS-SEC) replaced Social Class as the standard occupationally based classification used for all official statistics and surveys. NS-SEC is used in the current report for analysis of 2003 data alone.

The 2003 questionnaire retained the majority of questions and topics from the 1993 survey to allow changes in reported behaviour and attitudes to be measured, although some questions were developed further and some new topics added. Details of the questionnaire development can be found in the Technical Report available at <http://www.statistics.gov.uk/children/dental/health>

Questionnaires were distributed to the parents of a random sub-sample of 5480 examined children. In total, 3342 questionnaires were returned, a response rate of 61%.

Visiting the dentist

The majority of children were reported as having visited the dentist at least once. Table 1 shows the proportion of children who had reportedly never visited the dentist. The proportion of children who had never visited the dentist reduces with age to only 1% of 12 or 15-year-olds. The proportion of five-year-olds who had never visited the dentist was only 6% in 2003, compared with 14% in 1983. This represents a major change in parental attitudes to visiting the dentist, despite a fall in disease levels at this age. While the overall picture has improved, differences between social classes among five-year-olds appear wider in 2003 compared with 1983 and 1993. In 1983 there was a difference of 8% and a factor of 1.8 between the highest and lowest social class in the proportion of children aged five years who had never visited the dentist. In 2003 the difference is 11% and a factor of 6.5. In other age groups in 2003 there were no statistically significant differences between the social classes.

Table 1

Table 1 Proportion of children who had never visited the dentist by age and social class of household (United Kingdom, 1983, 1993, 2003)

Social class of household	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
	<i>Percentage of children:</i>											
I,II,III non-manual	10	7	2	3	2	*	1	*	1	-	1	-
III manual	15	10	5	4	3	2	3	1	1	1	1	2
IV, V	18	15	13	9	6	1	2	2	3	1	1	2
All households	14	10	6	4	4	2	2	1	1	1	1	1

Table 2 shows that in 2003 the proportion of children who had never visited the dentist was similar across the individual countries of the United Kingdom. Among five-year-olds this finding was in marked contrast to the 1983 study where the proportion varied from 13% in England to 29% in Northern Ireland. All countries have seen improvement since 1993 in the proportion of five-year-olds who had never visited the dentist but the difference is only statistically significant for England; a reduction from 11% in 1993 to 7% in 2003. The proportion of five-year-olds in Northern Ireland who had never visited the dentist improved dramatically between 1983 (29%) and 1993 (5%), this improvement being maintained in 2003 (4%).

Table 2

Patterns of care and service use

Table 2 Proportion of children who had never visited the dentist by country (United Kingdom, 1983, 1993, 2003)

Country	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
	<i>Percentage of children:</i>											
England	13	11	7	4	4	2	2	1	1	1	1	*
Wales	16	6	5	4	1	2	1	2	-	1	1	-
Northern Ireland	29	5	4	7	1	1	5	*	-	1	3	-
United kingdom	14	10	6	4	4	2	2	1	1	1	1	1

The age at which children first visited the dentist is another way of investigating this issue. Parents or were asked at what age their child had first attended a dentist and the responses are shown in table 3. In 2003, the proportion of five-year-olds who were reported as having first visited the dentist before the age of two years (31%) had doubled since 1993 (15%) and quadrupled since 1983 (7%), confirming the finding that parents are apparently taking their children to the dentist at a younger age than was previously the case. Over half of children were reported as having visited the dentist before the age of three years in 2003 compared with a quarter in 1983. This is a difficult question for parents of older children to answer and the responses for older children should be interpreted with caution. As an indicator of this difficulty, in 2003 22% of 15-year-olds were reported as having first visited the dentist before the age of 2 years whereas the estimate for this age group ten years earlier, that is five-year-olds in 1993, was 15%. In addition, in 2003 71% of 15-year-olds were reported as having attended before the age of five years compared with 82% of five-year-olds in 1993.

Table3

Table 3 Age of first visit to the dentist by age (United Kingdom, 1983, 1993, 2003)

First visit to dentist	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
	<i>Percentage of children who had visited the dentist by this age:</i>											
Under two years	7	15	31	6	12	33	5	7	27	3	7	22
Under three years	26	42	54	24	35	53	18	29	48	14	25	40
Under four years	59	67	75	48	58	67	39	51	64	35	50	59
Under five years	78	82	87	66	72	80	57	67	73	53	64	71
Five years or older	6	6	7	27	22	18	37	27	26	40	27	28
Never visited the dentist	14	10	6	4	4	2	2	1	1	1	1	1
Cant' remember	1	2	*	3	3	1	4	5	1	6	8	2

Children's dental attendance pattern

Parents' were asked to provide information about their child's dental visits. Attendance patterns were derived from information given about the length of time since the last dental visit and the reason for the visit. Regular attenders were those who had visited the dentist in the six months prior to the survey and who had done so for a check up. Occasional attenders were categorised as those whose last visit was longer than six months ago, but was also for a check up. Those whose last visit was because they had trouble with their teeth, or in the case of children because the community or school dentist had advised it, were classified as attending only with trouble.

Table 4 shows the proportion of children in each age group reported as attending the dentist regularly, occasionally or only when having trouble with their teeth. The majority of children in all age groups were regular attenders: though around a third of five-year-olds were symptomatic attenders, falling to around a quarter of other age groups. A relationship was apparent between the socio-economic classification of the household and children's attendance patterns. Among five, eight and 12-year-olds a larger proportion of children from managerial and professional occupational groups attended the dentist regularly compared with children from routine and manual backgrounds. Among children from managerial and professional groups 62% of five-year-olds, 70% of eight-year-olds and 70% of 12-year-olds were regular attenders compared with 58% of five-year-olds, 62% of eight-year-olds, and 64% of 12-year-olds from routine and manual occupational groups. The proportion of five-year-olds classed as symptomatic attenders was 39% for routine and manual groups compared with 25% for managerial and professional groups.

Table 4

Table 4 Children's reported dental attendance patterns by age and socio-economic classification (NS-SEC) of household (United Kingdom, 2003)

Socio-economic classification	Frequency of visit			Weighted based
	Regular attender	Only attends when trouble	Occasional attender	
Percentage of children:				
Managerial and professional				
5 year olds	13	25	13	604
8 year olds	9	21	9	540
12 year olds	12	19	12	548
15 year olds	15	16	15	510
Intermediate				
5 year olds	8	26	8	248
8 year olds	8	25	8	259
12 year olds	16	24	16	266
15 year olds	16	23	16	266
Routine and manual				
5 year olds	6	39	6	378
8 year olds	15	30	15	483
12 year olds	15	25	15	449
15 year olds	14	25	14	387
All households				
5 year olds	10	34	10	1230
8 year olds	12	26	12	1282
12 year olds	14	23	14	1263
15 year olds	16	21	16	1171

Mothers' and children's dental attendance patterns

Previous studies have shown an association between mothers' and children's dental attendance patterns, suggesting that maternal attitudes to oral health and dental services are an important influence on decisions over the child's dental care. In addition to being asked about children's dental attendance, the questionnaire also asked parents to indicate how often they themselves, or their partners, went to the dentist. This information was used to derive a variable for maternal attendance. While in the majority of cases the questionnaire was completed by the child's mother, 12% of questionnaires were completed by the mother's husband or partner. Hence in these cases maternal attendance patterns were collected by proxy (as in previous surveys).

Mothers' attendance patterns were derived in the same way as children's, using information given about the length of time since the last dental visit and the reason for the visit.

Table 5 shows the proportion of children reportedly first attending the dentist before the age of five years compared with their mother's reported attendance pattern. This shows, as in previous surveys, that the two are associated. For example nearly all (92%) of children aged five years in 2003 whose mothers were regular attenders had visited the dentist before the age of five compared with around half (55%) of those whose mothers only attended when having symptoms; a wider gap than was apparent in 1993 when the figures were 92% and 62% respectively. The proportion of children under five on their first visit whose mothers were occasional attenders has improved from 72% in 1993 to 91% in 2003.

Table 5

Table 5 Proportion of children who were aged below five at first dental visit by age and mother's dental attendance pattern (United Kingdom, 1993, 2003)

Mother's attendance pattern	Age							
	5		8		12		15	
	1993	2003	1993	2003	1993	2003	1993	2003
<i>Percentage of children under five at first dental visit:</i>								
Regular attender	92	92	83	85	77	81	75	78
Occasional attender	72	91	60	72	59	55	53	42
Only attends with trouble	62	55	51	56	46	52	42	56
All types of attender	82	87	72	80	67	73	64	71

Table 6 shows the proportion of children who attended the dentist regularly according to mothers' attendance patterns. The overall proportion of children classified as regular attenders has remained stable in all four age groups since 1993. There remains a marked difference between those whose mother is a regular attender and those whose mother only attends with symptoms. Among five-year-olds in 2003, 69% of children whose mother was a regular attender were themselves regular attenders compared with only 26% of those whose mother was a symptomatic attender. The figures for eight and 15-year-olds were 71% for children whose mothers were regular attenders and 36% for those whose mothers

Patterns of care and service use

only attended with symptoms. The corresponding proportions among 12-year-olds were 73% and 34%. Among older children, there is an apparent pattern of a reduction in dental attendance among those whose mothers were not regular attenders. For instance, among 15-year-olds the proportion of children classed as regular attenders fell from 42% of those with occasional attender mothers in 1983 to 23% in 2003 and 43% of those with symptomatic attender mothers in 1983 to 36% in 2003.

Table 6

Table 6 Proportion of children who attended the dentist regularly by age and mother's dental attendance pattern (United Kingdom, 1993, 2003)

Mother's attendance pattern	Age							
	5		8		12		15	
	1993	2003	1993	2003	1993	2003	1993	2003
<i>Percentage of children who were regular attenders:</i>								
Regular attender	73	69	76	71	74	73	77	71
Occasional attender	39	31	43	33	52	30	42	23
Only attends with trouble	32	26	34	36	40	34	43	36
All types of attender	59	58	60	63	66	63	64	63

In the 2003 survey, parents were also asked directly whether they thought their child was a regular attender for check-ups and the results are presented in Table 7. This also shows an association between maternal and child attendance patterns but the proportion classified as regular attenders is far higher, this being based on parental judgement rather than derived from other responses. For example, 97% of 15-year-olds with regularly attending mothers were reported as regular attenders themselves but only 71% were classified as regular attenders using the derived variable. However only 43% of those with symptomatic attender mothers were reported as regular attenders, closer to the 36% classified using the derived variable.

Table 7

Table 7 Proportion of children who were regular attenders by age and mother's attendance pattern 2003 (United Kingdom, 2003)

Mother's attendance pattern	Age			
	5	8	12	15
<i>Percentage of children who were regular attenders:</i>				
Regular attender	93	97	98	97
Occasional attender	38	32	51	44
Only attends with trouble	57	54	65	43
All types of attender	83	86	89	88

The parental description of their children's attendance pattern matched well with reported attendance in the previous year; 100% of children in all age groups whose parents

described them as regular attenders were also reported as having attended in the previous year (Table 8). In addition nearly all reportedly regular attending children in all age groups had an interval of less than a year between their previous two dental visits.

Table 8

Table 8 Proportion of children who were attended the dentist in the previous year by child attendance pattern 2003 (United Kingdom, 2003)

Child attendance pattern	Age			
	5	8	12	15
<i>Percentage of children who attended in previous year:</i>				
Regular attender	100	100	100	100
Occasional attender	72	78	70	66
Only attends with trouble	75	85	92	84
All types of attender	89	94	94	91

Reason for last dental visit

Another way of assessing children's dental attendance is to examine what initiated their most recent course of treatment, irrespective of whether it was completed in one visit or spread out over a number of visits. This is shown in Table 9. Across all age groups the majority of reasons given for initiating a course of treatment were check ups or in response to reminders from the dentist; between 82% and 89% of children. There were no age-related differences in the proportion of reasons reported for initiating treatment. Within age groups there were some differences associated with socio-economic status in the experience of symptoms as a reason for initiating a visit. Among five and eight-year-olds the proportion of children reported to visit the dentist because they were having trouble with their teeth was higher among routine and manual occupational groups (15% of five-year-olds and 18% of eight-year-olds) compared with managerial and professional occupational groups (8% of five-year-olds and 10% of eight-year-olds). A lower proportion of five-year-olds from routine and manual backgrounds (65%) visited the dentist for a check-up compared with five-year-olds from managerial and professional backgrounds (75%).

Table 9

Patterns of care and service use

Table 9 Reason for last dental visit by age and socio-economic status (NS_SEC) of household (United Kingdom, 2003)

Reason for last visit	Age			
	5	8	12	15
<i>Percentage of children:</i>				
Managerial and professional				
Having trouble with teeth	8	10	8	5
Note from school dentist	3	1	*	-
Check-up	75	78	81	83
Reminder	12	9	9	12
To get used to going	2	1	-	-
Other reason	-	*	1	*
Weighted base	604	540	548	510
Intermediate				
Having trouble with teeth	7	15	8	12
Note from school dentist	1	-	2	1
Check-up	71	75	77	77
Reminder	15	9	14	10
To get used to going	6	-	-	-
Other reason	*	-	-	*
Weighted base	248	259	266	266
Routine and manual				
Having trouble with teeth	15	18	10	8
Note from school dentist	4	5	1	5
Check-up	65	72	75	76
Reminder	12	5	13	10
To get used to going	4	*	-	-
Other reason	*	*	*	*
Weighted base	378	483	449	387
All households				
Having trouble with teeth	11	14	9	9
Note from school dentist	3	3	1	2
Check-up	70	75	78	79
Reminder	12	8	11	10
To get used to going	4	1	*	-
Other reason	*	-	*	*
Weighted base	1230	1282	1263	1171

Dental Services Used

In the 1983 and 1993 surveys, most children who had experienced dental treatment had used the General Dental Service and few were reported to have received treatment from the Community Dental Service, either in isolation or in combination with General Dental Services. The question relating to this topic was re-phrased to improve clarity and focus upon experience of both diagnostic and treatment services rather than only treatment as suggested in 1983 and 1993. The results are therefore not comparable with previous surveys but give a more complete picture of service use. In 2003 the terms 'school dentist' and 'Community Dental Service' were applied to capture use of National Health Service (NHS) salaried primary care dental services that were targeted at children and provided screening as well as individual diagnostic and treatment services.

The majority of children in 2003 reported having used the General Dental Services, either in isolation or in combination with Community Dental Services (Table 10). In the five and eight year age groups almost as many reported using both General and Community Dental Services as reported using only the General Dental Service. There were few differences between socio-economic groups, although among five-year olds children from routine and manual backgrounds were less likely to report using general dental service only (41%) compared with those from managerial and professional backgrounds (52%). In addition, a larger proportion of five-year-olds from routine and manual backgrounds (10%) had no experience of dental services compared with five-year-olds from either intermediate or managerial and professional backgrounds (2%).

Tables 10 and 11

Table 10 Dental services used by age (United Kingdom, 2003)

Dental Service	Age			
	5	8	12	15
<i>Percentage of children:</i>				
General Dental Services only	40	47	51	52
Community Dental Services only	9	8	8	7
General and Community Dental Services	43	40	38	38
Treatment outside the NHS	1	2	1	1
No experience of service	6	2	1	1
<i>Weighted base</i>	<i>1230</i>	<i>1282</i>	<i>1263</i>	<i>1171</i>

Patterns of care and service use

Table 11 Dental services used by age and socio-economic classification (NS-SEC) of household (United Kingdom, 2003)

Dental service	Age			
	5	8	12	15
<i>Percentage of children:</i>				
Managerial and professional				
General Dental Services only	52	55	52	55
Community Dental Services only	5	3	5	5
General and Community Dental Services	39	38	40	40
Treatment outside NHS	1	3	1	*
No experience of service	2	*	1	*
Weighted base	604	540	548	518
Intermediate				
General Dental Services only	47	58	55	54
Community Dental Services only	6	7	4	5
General and Community Dental Services	41	31	40	40
Treatment outside NHS	4	2	*	*
No experience of service	2	1	1	*
Weighted base	248	259	266	266
Routine and manual				
General Dental Services only	41	46	56	47
Community Dental Services only	7	8	11	13
General and Community Dental Services	40	40	30	34
Treatment outside NHS	2	2	2	2
No experience of service	10	3	1	2
Weighted base	378	483	449	387

The reported use of dental services outside the NHS by children remains very low, as in previous surveys. All NHS dental care for children is free and another way of investigating use of private dental care is to ask whether any dental treatment had been paid for. In keeping with previous years the proportion of children whose parents reported paying for some dental care on their behalf at some point was very low, around 1% of five-year-olds rising to 6% of 15-year-olds.

Table 12

Table 12 Experience of paying for dental treatment by age

Ever paid for treatment	Age			
	5	8	12	15
<i>Percentage of children:</i>				
Yes	1	2	4	6
No	99	98	96	94
Weighted base	1373	1424	1374	1309

Experience of dental treatment

This section examines the reported lifetime experience of certain dental treatments. Reported extractions in children aged five and eight years will tend to be for removal of decayed teeth; in older children an increasing number of extractions will have been for orthodontic purposes. Any changes over time will reflect a range of factors particularly changing dental attendance patterns, demand for orthodontics and changing prevalence of dental caries. Changes in the reported experience of fillings may be the result of changing disease levels but may also be affected by children having teeth filled rather than extracted. This makes interpretation of the data increasingly problematic when disease levels are known to be falling and dental attendance rising.

Table 13 shows the proportion of children who were reported to have experienced at least one extraction at some time in their lives, irrespective of the underlying reason. Reported experience of extraction increased with age from 10% among five-year-olds to 47% among 15-year-olds. Among eight, 12 and 15-year-olds the reported experience of extractions has decreased since previous surveys. For instance, among 15-year-olds the proportion with reported experience of extractions fell from 71% in 1983 to 56% in 1993 and to 47% in 2003, suggesting that the rate of change was slower between 1993 and 2003 than between 1983 and 1993. The reduction in reported experience of extraction among eight and 12-year-olds has declined since 1983 and in 2003 is just over half that of the 1983 levels.

A decrease in the proportion of eight, 12 and 15-year-olds with experience of extractions is apparent across all social classes in 2003. However, the proportion for social classes IV and V in 2003 tends to lag about 10 years behind that for children from social classes I, II and III non-manual. For example, in 2003 15-year-olds from social class IV and V have a reported experience of extractions (54%) similar to that of children from social class I, II and III non-manual in 1993 (50%) but the former had a reported experience of 63% in 1993, similar to that for social class I, II and III non-manual in 1983 (66%).

Table 13

Table 13 Proportion of children who had ever had an extraction by age and social class of household (United Kingdom, 1983, 1993, 2003)

Social class of household	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
<i>Percentage of children who had ever had an extraction:</i>												
I,II,III non-manual	7	8	8	38	24	19	64	46	34	66	50	47
III manual	12	12	14	43	33	30	66	52	43	76	62	46
IV, V	15	15	10	48	38	30	69	55	40	74	63	54
All households	11	12	10	42	31	23	66	51	36	71	56	47

Patterns of care and service use

There are some differences in experience of extractions between the countries of the United Kingdom (Table 14). Among 12-year-olds, a lower proportion of children from England (34%) had reported experience of extractions compared with either Wales (58%) or Northern Ireland (53%). Statistically significant differences in the proportion of children with experience of extractions were also evident between England and Wales among eight-year-olds (21% compared with 32%) and between England and Northern Ireland among 15-year-olds (46% compared with 60%). Northern Ireland showed the greatest reduction in reported extractions between 1993 and 2003 among five, and eight-year-olds-. Northern Ireland showed the least change between 1993 and 2003 at age fifteen.

Table 14

Table 14 Proportion of children who had ever had an extraction by age and country (United Kingdom, 1983, 1993, 2003)

Social class of household	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
<i>Percentage of children who had ever had an extraction:</i>												
England	9	10	10	39	29	21	64	48	34	70	54	46
Wales	14	11	9	47	29	32	72	53	58	75	64	53
Northern Ireland	27	27	14	60	41	26	80	57	53	87	58	60
United kingdom	11	12	10	42	31	23	66	51	36	71	56	47

The reported experience of fillings is shown in Table 15. A decline in the reported experience of fillings can be observed in among 12 and 15-year-olds between 1993 and 2003 but there has been little change among five and eight-year-olds. The rate of change was greater between 1983 and 1993 than between 1993 and 2003 in all age groups. For instance, the reported experience of fillings among 15-year-olds decreased from 90% in 1983 to 66% in 1993 and decreased again between 1993 and 2003 to 52%, though the magnitude of the decrease has almost halved. Differences between social classes are also apparent and are showing signs of widening in some age groups. For example, in 2003 a larger proportion of eight-year-olds (56%) and 15-year-olds (63%) from social classes IV and were reported as having experienced a filling compared with those from social classes I, II and III non-manual (39% at age eight and 48% at age fifteen). The rate of change has also been greater in children aged fifteen from social classes I, II and II non-manual; -44% since 1983 and -12% since 1993, compared with those from social classes IV and V; -24% since 1983, -9% since 1993. There was however little difference between social classes in 1983 and smaller differences in 1993. The pattern reverses in 12-year-olds where children from social class III manual had a higher experience of fillings than the other social groups.

Table 15

Table 15 Proportion of children who had ever had a tooth filled by age and social class of household (United Kingdom, 1983, 1993, 2003)

Social class of household	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
<i>Percentage of children who had ever had a tooth filled:</i>												
I,II,III non-manual	26	17	14	57	42	39	82	61	47	92	60	48
III manual	29	22	22	65	49	49	83	67	63	91	70	53
IV, V	29	23	23	53	51	56	77	62	41	87	72	63
All households	29	20	16	58	46	42	81	62	49	90	66	52

Children in England were least likely to report experience of fillings in all age groups (Table 16) and, as in 1993, the differences between England and other countries were greater in the older age groups. Among 12-year-olds 47% of children in England reported experience of fillings, a smaller percentage than in Wales (57%) or Northern Ireland (70%). Among 15-year-olds, 49% of children in England reported experiencing a filling compared with 70% in Wales and Northern Ireland.

Table 16

Table 16 Proportion of children who had ever had a tooth filled by age and country (United Kingdom, 1983, 1993, 2003)

Country	Age 5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
<i>Percentage of children who had ever had a tooth filled:</i>												
England	27	20	15	57	45	42	81	60	47	90	63	49
Wales	41	21	21	64	56	54	84	67	57	90	74	70
Northern Ireland	29	25	28	63	50	51	72	77	70	87	77	70
United kingdom	29	20	16	58	46	42	81	62	49	90	66	52

Parents were also asked whether their child had ever had a general anaesthetic for dental procedures. Since the late 1990s there has been increasing regulation of the provision of general anaesthesia for dental procedures. Younger children therefore will mostly have experienced this for extraction of carious teeth only, where other patient management techniques could not be used. In 1993 the questionnaire linked general anaesthesia with extractions, in 2003 experience of general anaesthesia for dental procedures was recorded irrespective of the dental procedure. This means that the 2003 results are not comparable with previous surveys. The experience of general anaesthesia for dental procedures in 2003 was 5% among five-year-olds, 11% among eight and 12-year-olds and 21% among 15-year-olds. The proportion of children who reported to have both experienced a general anaesthetic for dental procedures and had teeth extracted, not necessarily simultaneously, is shown in Table 17. Overall only 5% of five-year-olds reported experience of both general

Patterns of care and service use

anaesthesia and extractions compared with 20% of 15-year-olds. There were no statistically significant differences between countries within any of the age groups.

Table 17

Table 17 Proportion of children who have had a general anaesthetic and teeth taken out by age and country (United Kingdom, 2003)

Country	Age			
	5	8	12	15
Percentage of children:				
England	5	8	9	20
Wales	5	19	18	22
Northern Ireland	8	14	20	26
United Kingdom	5	10	10	20

Children who were reported as having visited the dentist and not received an extraction or a filling are shown in tables 18 and 19. The proportion has risen since 1993 in all age groups, though the change is smaller among five and eight-year-olds. The proportion among 12-year-olds almost doubled from 24% in 1993 to 47% in 2003. A higher proportion of five and eight-year-olds in social classes I, II and III non-manual had visited the dentist and not required any treatment, while a lower proportion of 12-year-olds in the III manual group had visited the dentist and not required any treatment. There were no statistically significant differences between social classes in the rate of change since 1993.

Tables 18

Table 18 Proportion of children who had visited the dentist and had never had an extraction or filling by age and social class of household (United Kingdom, 1983, 1993, 2003)

Social class of household	Age											
	5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
Percentage of children who had never had a filling or extraction:												
I,II,III non-manual	61	77	83	29	47	58	10	27	51	5	23	43
III manual	49	69	74	22	38	46	6	20	34	3	15	43
IV, V	37	59	72	22	33	38	6	24	57	5	16	36
All households	53	71	79	26	42	53	7	24	47	4	19	40

Table 19 Proportion of children who had visited the dentist and had never had an extraction or filling by age and country (United Kingdom, 1983, 1993, 2003)

Country	Age											
	5			8			12			15		
	1983	1993	2003	1983	1993	2003	1983	1993	2003	1983	1993	2003
Percentage of children who had never had a filling or extraction:												
England	56	72	81	28	44	55	8	26	50	5	21	42
Wales	35	71	76	18	33	39	7	21	38	3	11	28
Northern Ireland	27	57	64	13	34	44	5	11	22	4	14	26
United kingdom	53	71	79	26	42	53	7	24	47	4	19	40

Patterns of care and service use

English children were more likely to have visited the dentist and not required any treatment compared with other countries in all age groups. The difference was most pronounced among 12-year-olds: 50% in England compared with 38% in Wales and 22% in Northern Ireland.

Table 19

Parents were asked whether their child was accompanied to their last dental check-up and the results are shown in Table 20. Over 90% of children in all age groups were accompanied to this visit; only 6% of children aged 15 were unaccompanied. Among fifteen-year-olds, children in Northern Ireland (12%) and Wales (14%) were more likely to have gone unaccompanied than children from England (5%).

Table 20

Table 20 Proportion of children attending the dentist who were accompanied by age and country (United Kingdom, 2003)

Person accompanying	Age 5	8	12	15
England				
Parent/legal guardian	96	98	95	92
Another adult relative	2	2	2	2
Another adult (not a relative)	*	*	1	-
Another child (aged under 16)	15	12	8	7
Child unaccompanied	-	-	1	5
Seen by dentist at school	3	1	2	1
<i>Unweighted sample size</i>	<i>504</i>	<i>527</i>	<i>440</i>	<i>348</i>
Wales				
Parent/legal guardian	98	96	93	82
Another adult relative	*	3	4	5
Another adult (not a relative)	*	1	1	-
Another child (aged under 16)	15	11	10	4
Child unaccompanied	-	-	2	14
Seen by dentist at school	1	1	*	*
<i>Unweighted sample size</i>	<i>205</i>	<i>187</i>	<i>160</i>	<i>139</i>
Northern Ireland				
Parent/legal guardian	98	97	93	85
Another adult relative	1	3	1	3
Another adult (not a relative)	-	1	-	-
Another child (aged under 16)	12	7	5	2
Child unaccompanied	-	*	2	12
Seen by dentist at school	1	-	4	-
<i>Unweighted sample size</i>	<i>107</i>	<i>126</i>	<i>99</i>	<i>84</i>
United Kingdom				
Parent/legal guardian	96	97	94	90
Another adult relative	2	2	2	2
Another adult (not a relative)	*	*	1	-
Another child (aged under 16)	15	11	8	6
Child unaccompanied	*	*	1	6
Seen by dentist at school	3	2	2	1
<i>Weighted base</i>	<i>1274</i>	<i>1382</i>	<i>1330</i>	<i>1269</i>

Barriers to access

Parents were asked whether their child got anxious or worried about going to the dentist and the results are shown in Table 21. Some anxiety about going to the dentist was reported for 22% of five-year-olds, 25% of eight-year-olds, 28% of 12-year-olds and 25% of 15-year-olds. Those reporting only attending when having problems were more likely to report some anxiety in all age groups, showing some association between reported anxiety and reported attendance pattern. At age five, 17% of those reported to only attend when having problems were reported to have anxiety that prevents them attending unless in pain and nearly 10% reported anxiety as a major barrier to attending under any circumstances.

Table 21

Table 21 Anxiety about attending and reported attendance patterns by age and attendance pattern (United Kingdom, 2003)

Reported anxiety	Frequency of visit			
	Regular attender	Occasional attender	Only attends when trouble	All types of attender
5 year olds				
Does not usually get anxious	83	62	36	78
Gets anxious but attends	15	33	38	19
Gets anxious and only attends if in pain	*	-	17	1
Gets anxious and only attends if parent/guardian insists	2	4	7	2
Gets so anxious that refuses to go	*	*	2	*
8 year olds				
Does not usually get anxious	78	63	48	75
Gets anxious but attends	21	27	24	22
Gets anxious and only attends if in pain	*	6	1	1
Gets anxious and only attends if parent/guardian insists	1	5	20	2
Gets so anxious that refuses to go	-	-	8	*
12 year olds				
Does not usually get anxious	74	56	45	72
Gets anxious but attends	24	32	41	26
Gets anxious and only attends if in pain	*	7	7	1
Gets anxious and only attends if parent/guardian insists	1	4	-	1
Gets so anxious that refuses to go	*	*	7	1
15 year olds				
Does not usually get anxious	78	72	42	75
Gets anxious but attends	21	23	46	23
Gets anxious and only attends if in pain	*	4	4	*
Gets anxious and only attends if parent/guardian insists	1	*	2	1
Gets so anxious that refuses to go	*	1	5	*

Patterns of care and service use

Despite an apparent rise in attendance amongst children since previous surveys, around 10% of children in all age groups were reported as having experienced difficulty in accessing NHS dental care at some point. Among those reporting experience of difficulty around a fifth to a quarter in all age groups reported current problems with access.

Tables 22 and 23

Table 22 Proportion of children reporting experiencing difficulties in finding an NHS dentist by age (United Kingdom, 2003)

	Age			
	5	8	12	15
<i>Percentage of children:</i>				
Experienced difficulty	9	8	13	8
No attempt to access dentist	5	5	5	6
Over two years ago	86	87	82	86

Table 23 Time period when difficulties were experienced in finding an NHS dentist by age (United Kingdom, 2003)

	Age			
	5	8	12	15
<i>Percentage of children:</i>				
Currently having problems	22	20	24	26
In last two years	57	42	39	48
Over two years ago	22	38	36	25
<i>Weighted base</i>	<i>113</i>	<i>109</i>	<i>176</i>	<i>97</i>

Table 24 shows the reported reason behind the experienced difficulty. The reported reasons were centred around dentists' acceptance policies; 76% of those currently having problems reported that this was because family dentists in the area were not taking on new NHS patients. For those reporting current problems 28% reported that local family dentists would take on their child only if the parents became private patients.

Table 24

Table 24 Proportion of children reporting different reasons for experiencing difficulty finding a dentist willing to treat child on the NHS by when this was (United Kingdom, 2003)

Reasons for difficulty finding an NHS dentist	Reported period of difficulty		
	Current problem	In the last two years	Over two years ago
Family dentists not taking any more NHS patients	76	69	75
Only if parents go to them for private treatment	28	45	26
No School or Community Dental Service	9	7	3
Other reason	9	5	5
<i>Weighted base</i>	<i>114</i>	<i>224</i>	<i>153</i>