

# Attitudes, Behaviours and Anxiety in Children's Dental Health

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# Outline

- Methodology
- Patterns and experience of dental attendance
- Health Behaviours
- Dental anxiety

# Methodology

- Sample: 5, 8 ,12 & 15 year olds
- Parental questionnaire (all age groups)
- Pupil questionnaire (12 & 15 year olds)
- Both questionnaires covered a range of topics relating to oral health, behaviours and service use and reported impacts.
- Response Rate: 12 & 15 years – 99.6% completed the questionnaire after the dental examination
- 5 & 8 years parental questionnaire was 43% response rate

# Patterns and experience of dental attendance -

- 80% of 12 & 15 year olds reported that they attended the dentist for a check-up
- 89% of 5 year olds and 94% of 8 year olds are reported by their parents to be visiting the dentist of check ups – little change in attendance patterns across England, Wales and Northern Ireland since 2003
- Little variation in gender and attendance

# Attendance

- Age of first visit to the dentist:
  - 1983-2003 substantially increase in age of first attendance (by aged 2 years) 1983 – 31% - 2003 – 33%
  - 2013 – around 1/3 of 5 & 8 year old children first attended before the age of 2. (5 year olds - 30% 8 year olds – 34 %)
  - Association - free school meals & non-attendance

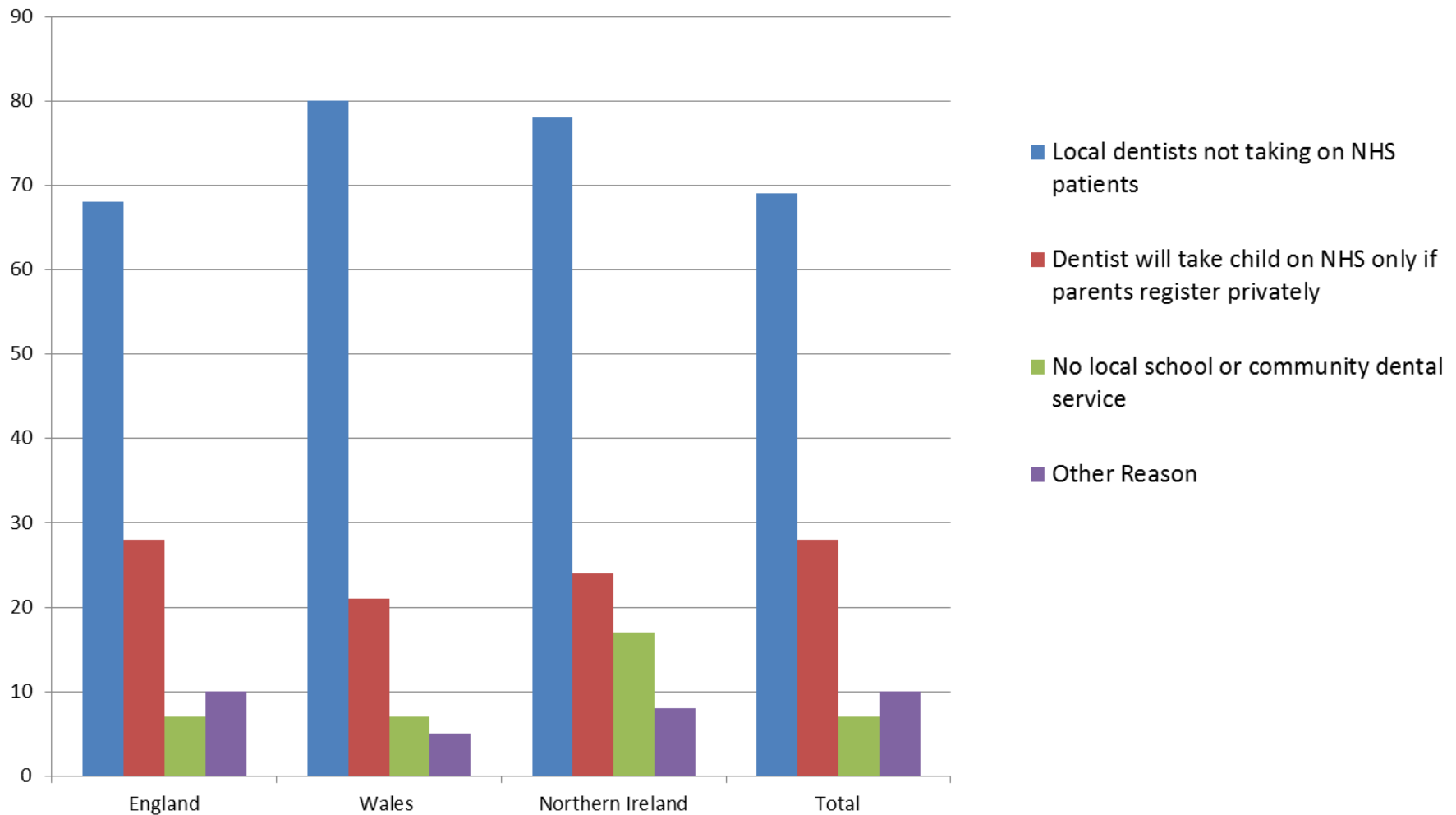
# Attendance

- Last visited the dentist
  - All age groups – 9 out of 10 children attended in the 12 months
  - Eligibility for free school meals was associated with lower likelihood of attendance in the past 12 months amongst 5 & 12 years.

# Access

- Access to services
  - 8 out of 10 parents reported that they had never experienced a difficulty finding an NHS dentist
  - Despite a large majority of parents reporting that they had never experienced any difficulty finding an NHS dentist in 2013, the percentage reporting having ever experienced a difficulty has increased slightly, from 9% in 2003 to **12% in 2013. (greater parent response in Wales and Northern Ireland)**
  - Parents of children who were eligible for free school meals, more likely to report having experienced a difficulty finding an NHS dentist

# Why had difficulty finding an NHS dentist, by country





# Dental Care Received

- 15 year olds
  - 38% of children had received a filling in a permanent tooth
  - 21% had a permanent tooth extracted
  - Some country variation – higher number of filling in Northern Ireland compared to Wales and England
- 12 year olds
  - 1 in 10 children had experienced an extraction
  - Children in Wales were more likely to have had a tooth extracted than in the other two countries.

# Dental Care Received

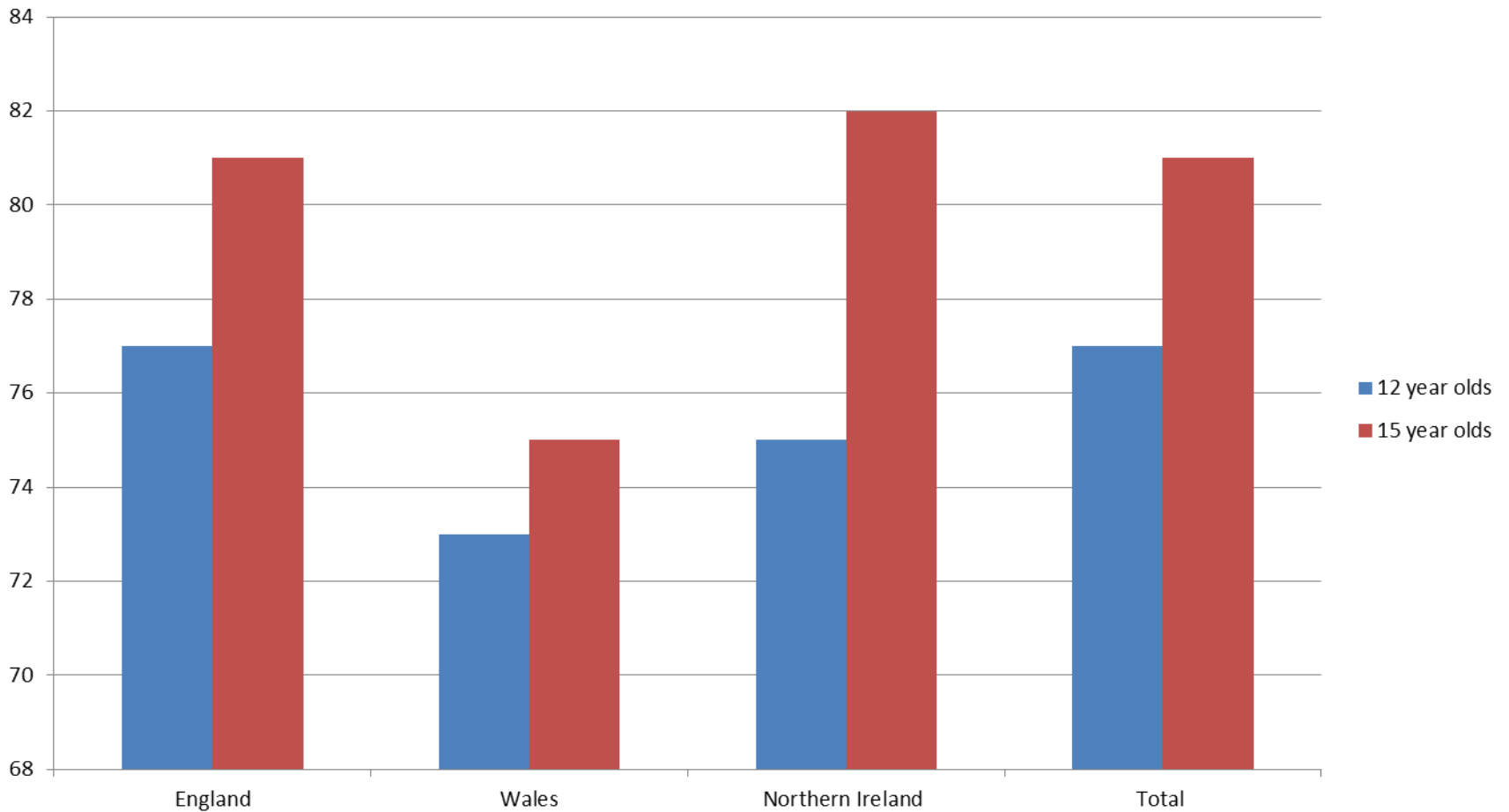
- GA & Sedation
  - 10% 12 & 15 years had dental treatment under GA
  - 24% 15 years had treatment under sedation
  - Use of GA according to parents was particularly in Wales & Northern Ireland (for 8, 12 and 15 year olds) compared to England
  - No difference in the use of sedation cross the three countries

# Deprivation and Treatment experienced

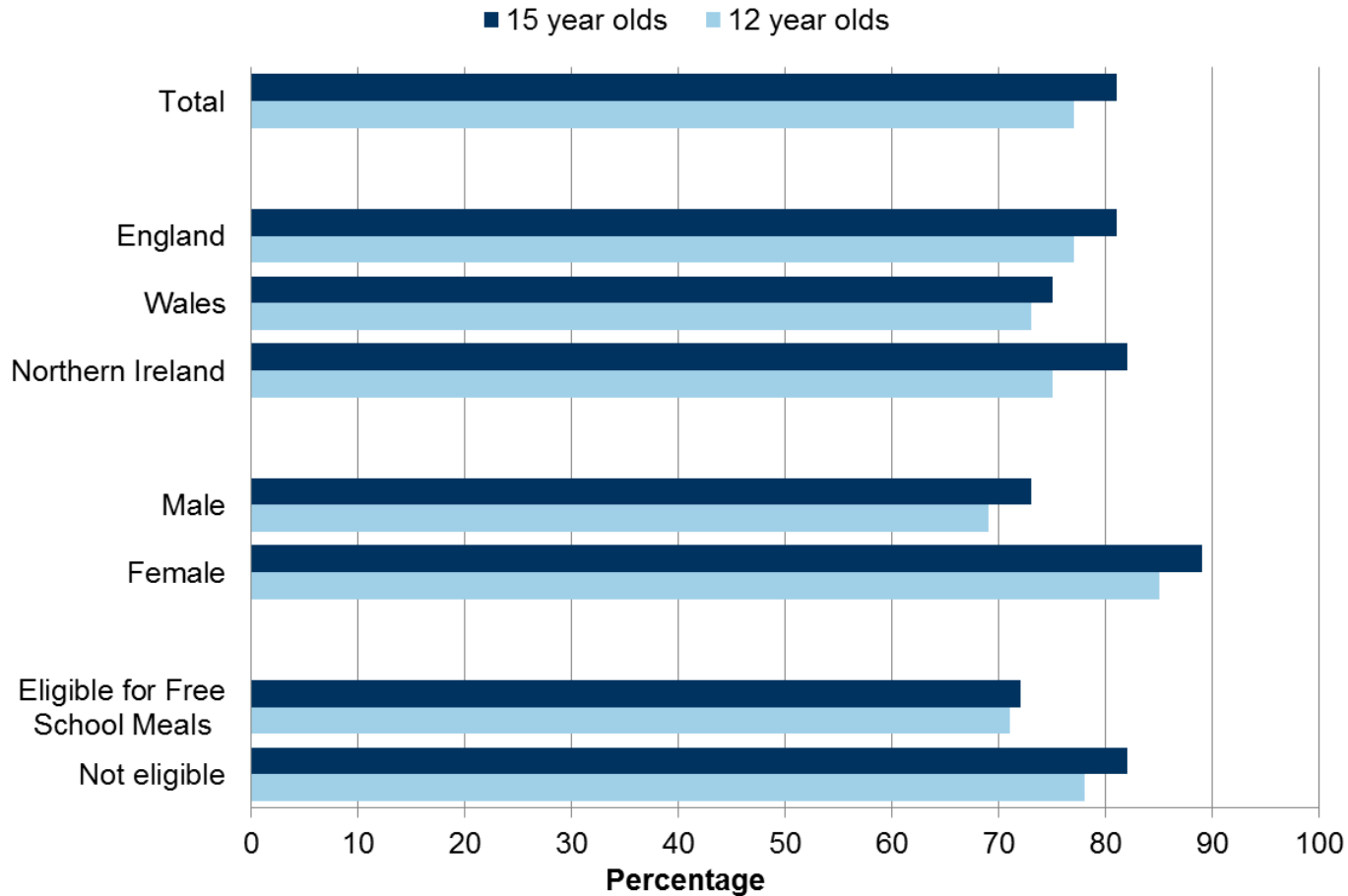
- Greater proportion of children eligible for free school meals having had fillings in primary teeth by 5 years.
- Eligible for free school meals – children were more likely to have had treatment under GA

# Prevention Behaviours

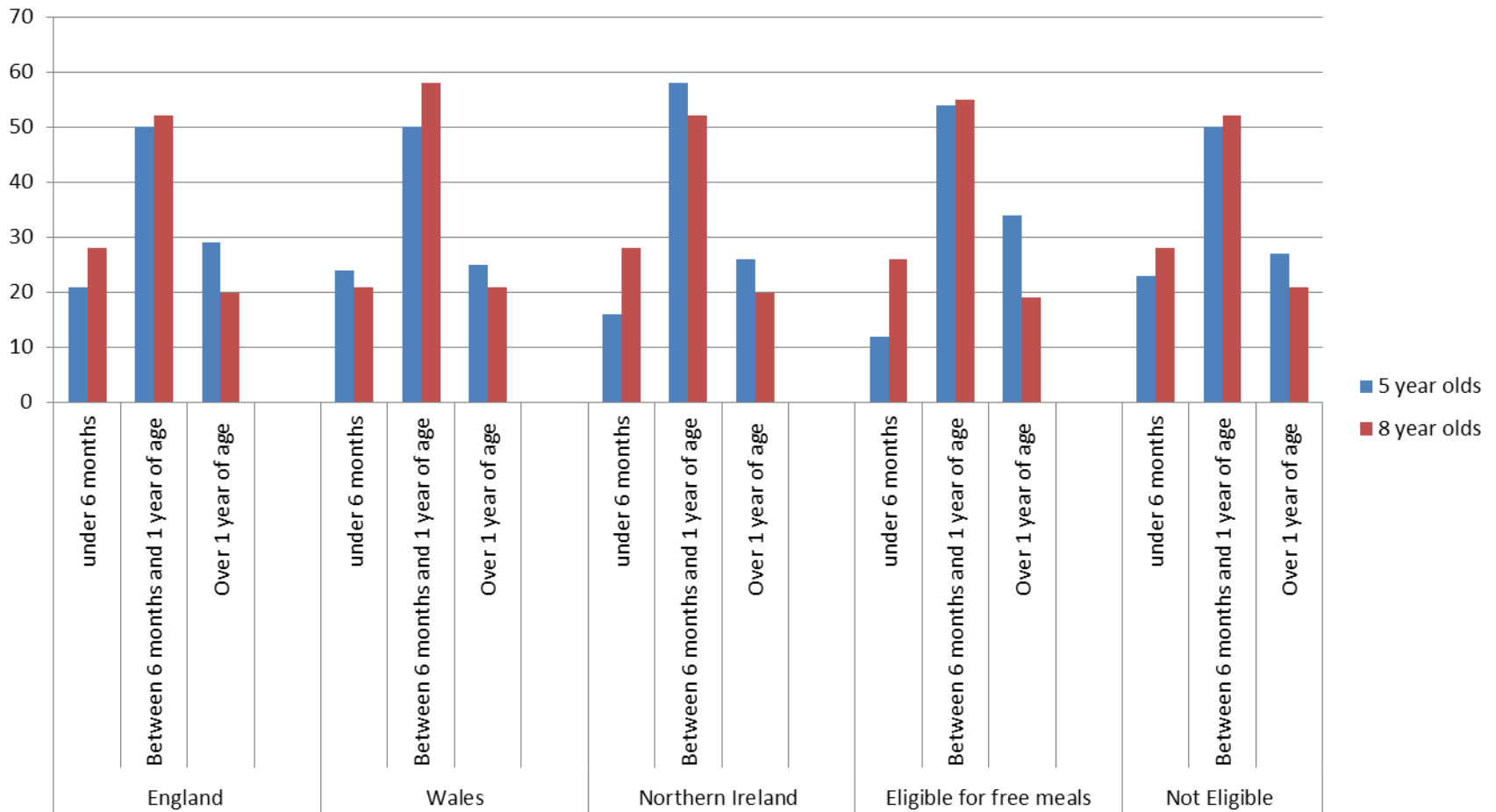
# Percentage of children reporting brushing their teeth twice a day or more, by age and country



# Percentage of 12 and 15 year olds reporting brushing their teeth twice or more a day, 2013



# Age started tooth brushing, by age and country & Eligibility for Free School Meals



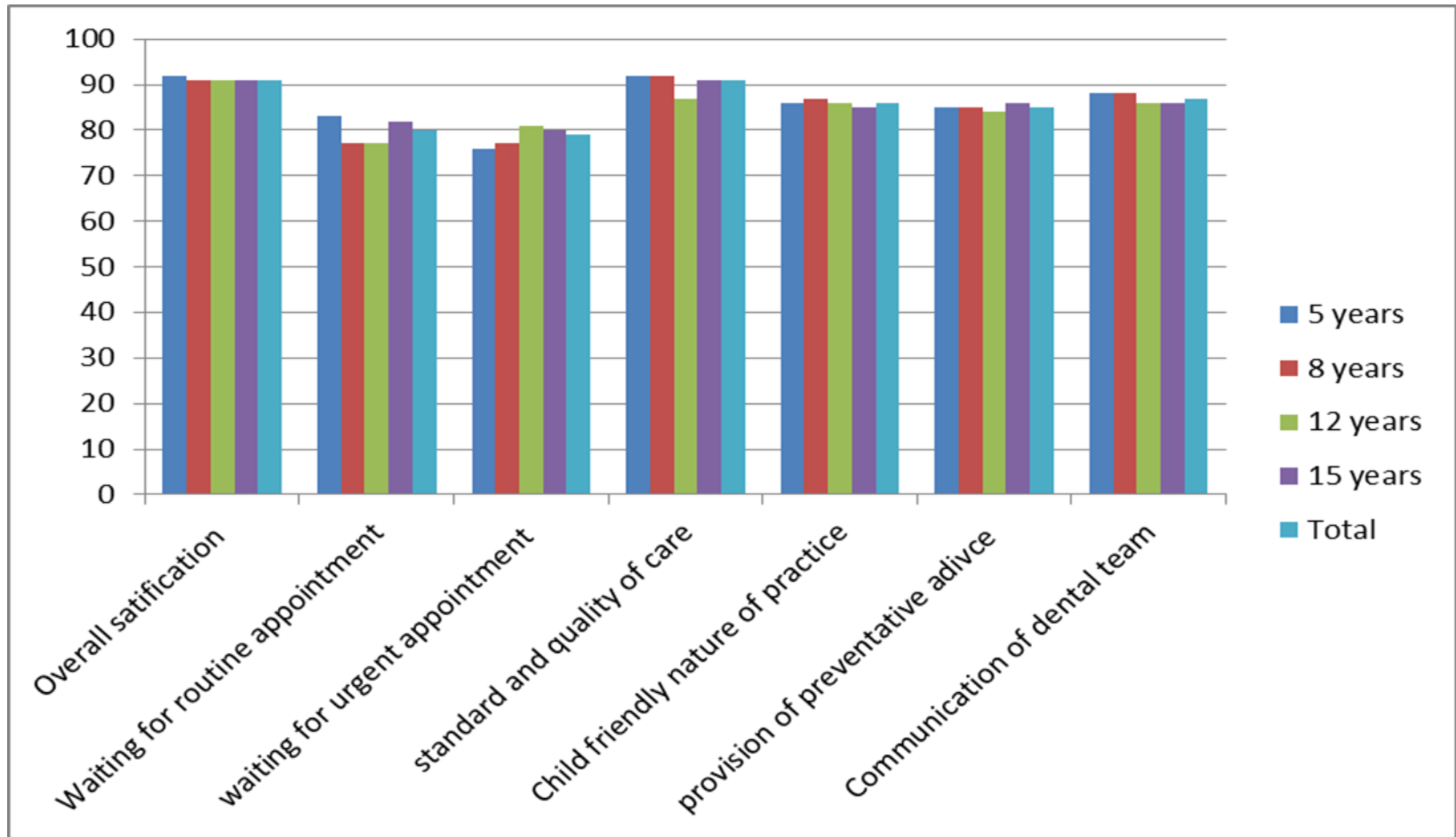
# Use of dental hygiene aids in the last 12 months, by age and country

		5 year olds	8 year olds	12 years olds	15 years olds
England	Toothbrush & toothpaste only	64	28	19	14
	Electric Toothbrush	39	49	37	41
	Mouthwash	22	57	59	67
	Dental Floss	3	10	16	20
	Sugar free gum	8	20	31	34
Wales	Toothbrush & toothpaste only	64	37	17	14
	Electric Toothbrush	45	49	48	43
	Mouthwash	27	54	69	74
	Dental Floss	5	6	17	32
	Sugar free gum	6	18	33	44
Northern Ireland	Toothbrush & toothpaste only	54	29	15	13
	Electric Toothbrush	36	41	36	33
	Mouthwash	32	55	65	72
	Dental Floss	2	11	21	31
	Sugar free gum	11	27	45	36
Total	Toothbrush & toothpaste only	64	28	19	14
	Electric Toothbrush	39	49	37	41
	Mouthwash	22	57	60	67
	Dental Floss	3	10	16	21
	Sugar free gum	8	20	31	34



# Satisfaction with Dental Services

# Satisfaction with dental treatment services



# Dental Anxiety

# Measurement Scales used

## Modified Dental Anxiety Scale

- 12 & 15 year olds
- The MDAS asks patients to imagine themselves in 5 different dental situations and to rate how they would react on a 5-point scale.
  - Three scores can be calculated. All questions are added to give a “total” score (max. 25); questions 1-4 can be summed to give a “general dental anxiety” score (max. 20); and question 5 can be summed to give a “needle phobia” score (max.5).
- The cut-off for clinically significant dental anxiety is **19**.

# Measurement Scales used

- 5 & 8 year olds
  - Parents were asked to rate their child's anxiety about visiting the dentist in general terms on a **scale of 1-10**, with a value of 1 being not at all anxious and 10 being extremely anxious. An option for 'my child never goes to the dentist' was provided.
  - This scale was divided into groups as follows: A score of 1 indicated that a child was not anxious; 2-4 indicated low anxiety and 5-10 moderate to extreme levels of anxiety.

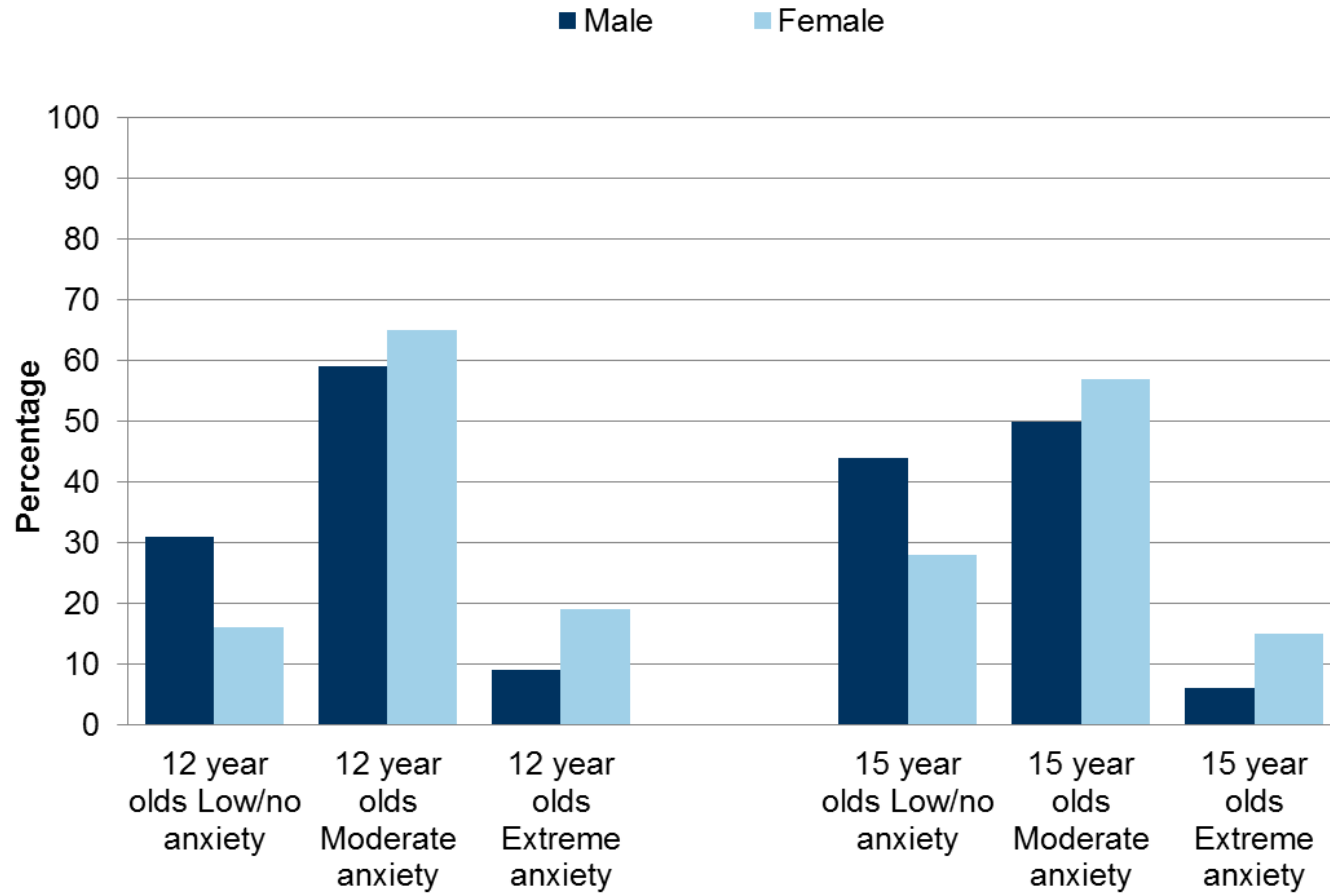
# Prevalence of dental anxiety

- 12 year olds
  - 24% who had attended the a dentist had an MDAS score between 5-9 (indicating low/no anxiety)
  - 62% had an MDAS score between 10-18 (moderate anxiety)
  - 14% had a score of 19 or more (extreme anxiety)
- 15 year olds
  - 36% who had attended the a dentist had an MDAS score between 5-9 (indicating low/no anxiety)
  - 54% had an MDAS score between 10-18 (moderate anxiety)
  - 10% had a score of 19 or more (extreme anxiety)

# Gender and Social variability

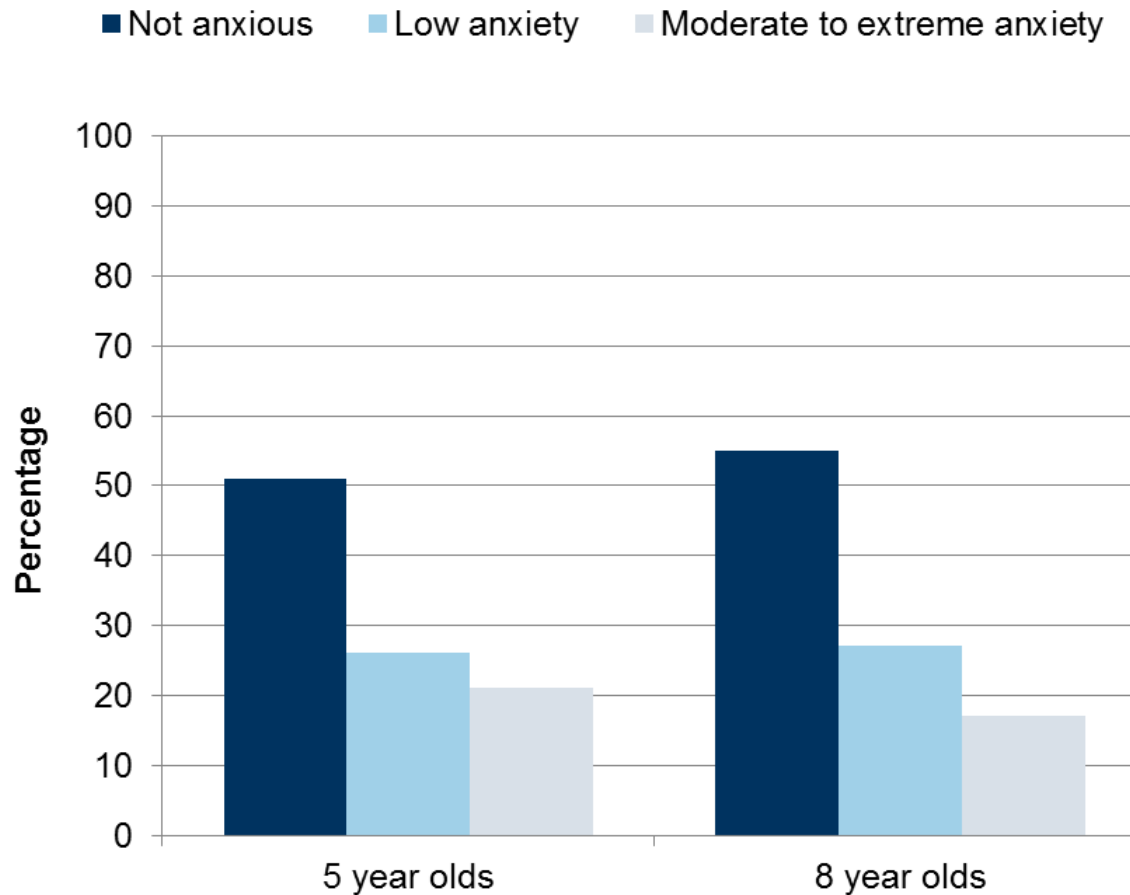
- No association with the eligibility to free school meals – all age groups
- Strong association between sex of the child 12 & 15 year olds
  - Boys more likely to report low or no dental anxiety
  - Girls more likely to classify themselves as having extreme dental anxiety in both 12 & 15 year olds
- No difference between gender at 5&8 year olds

# Self-rated anxiety about visiting the dentist, by sex and age, 2013

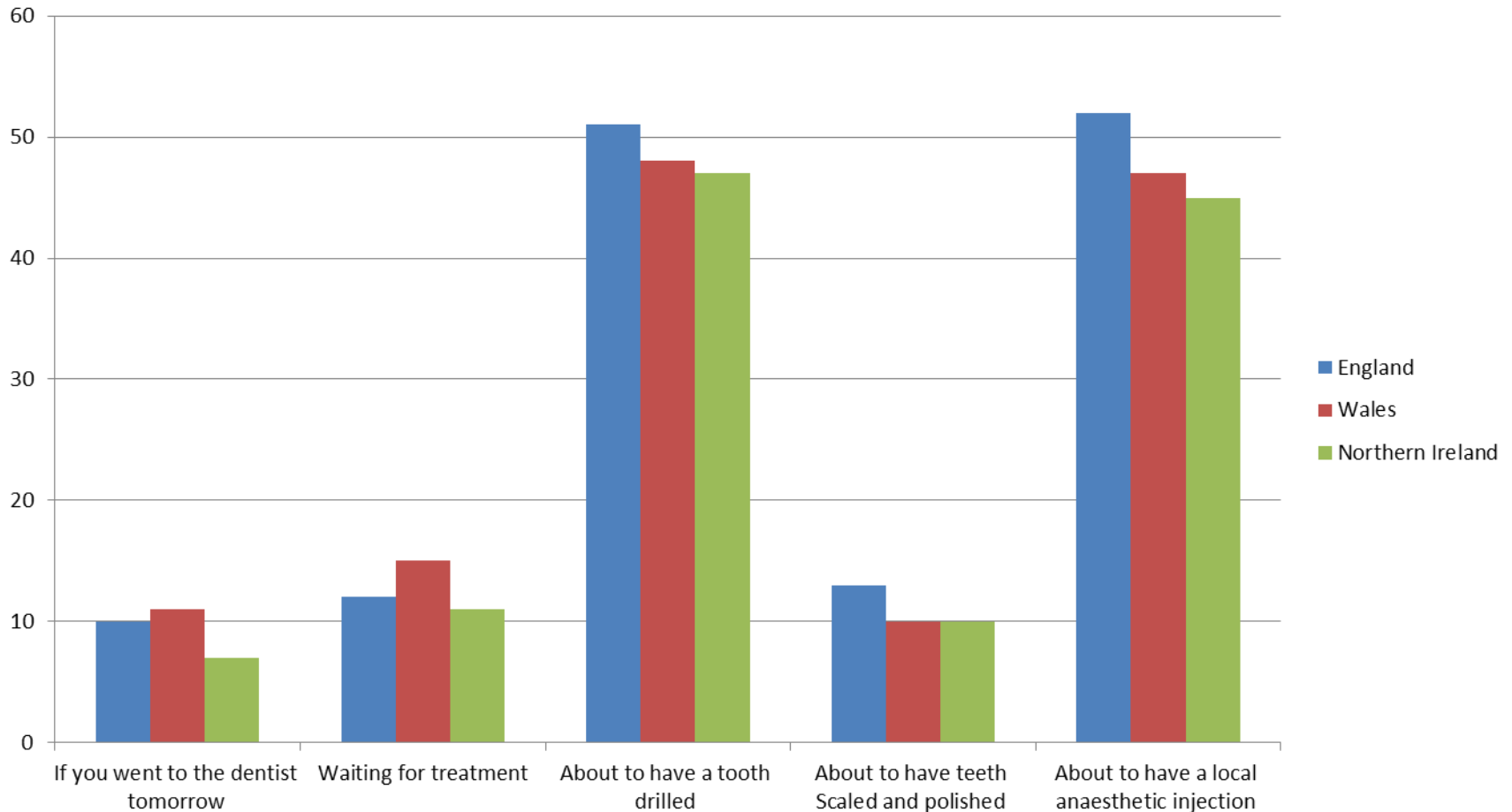




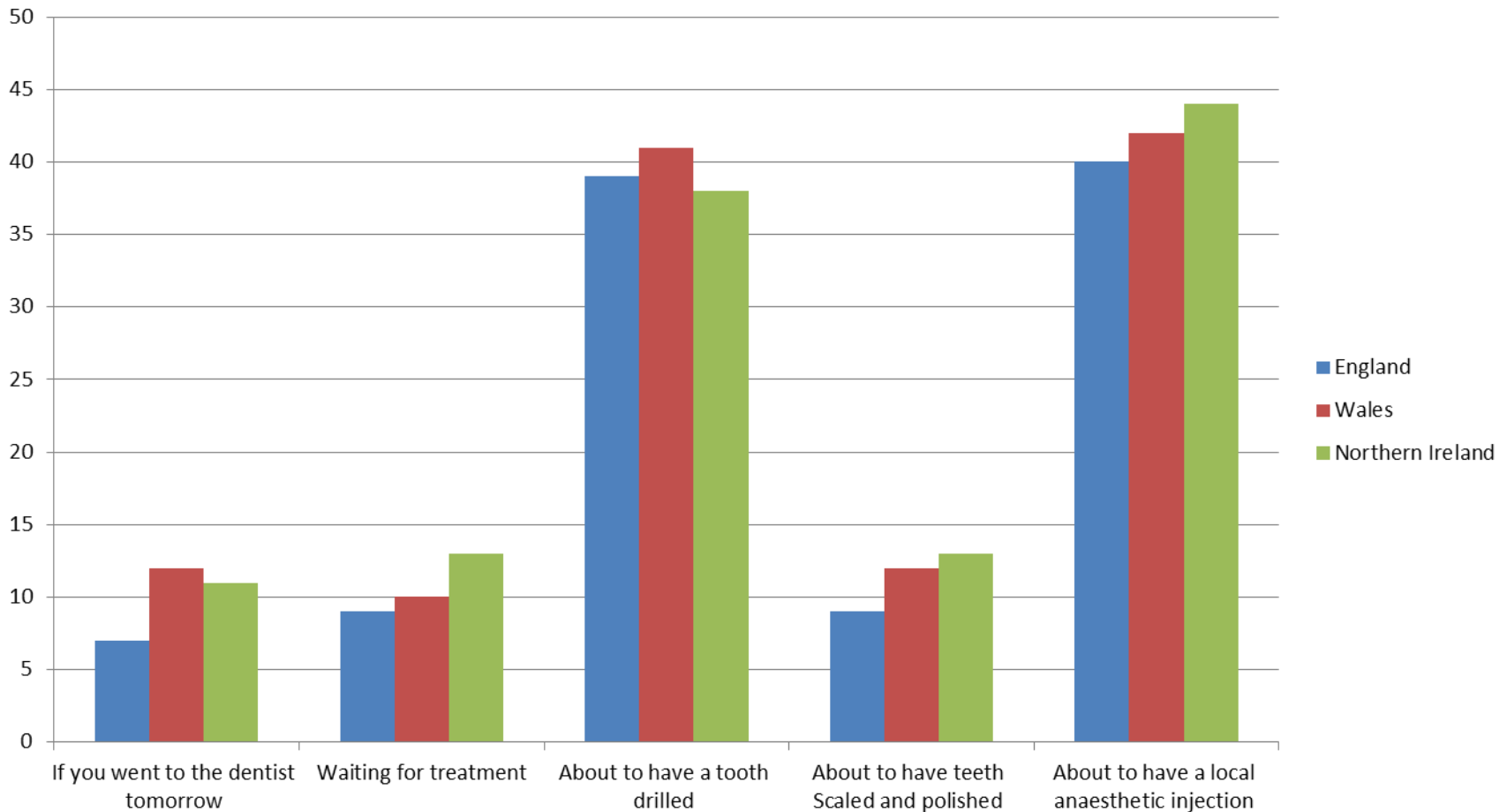
# Parental report on child anxiety when visiting the dentist, by age, England, Wales and Northern Ireland, 2013



## Percentage of children rated extremely anxious on individual dental anxiety items, by country and age – 12 year olds

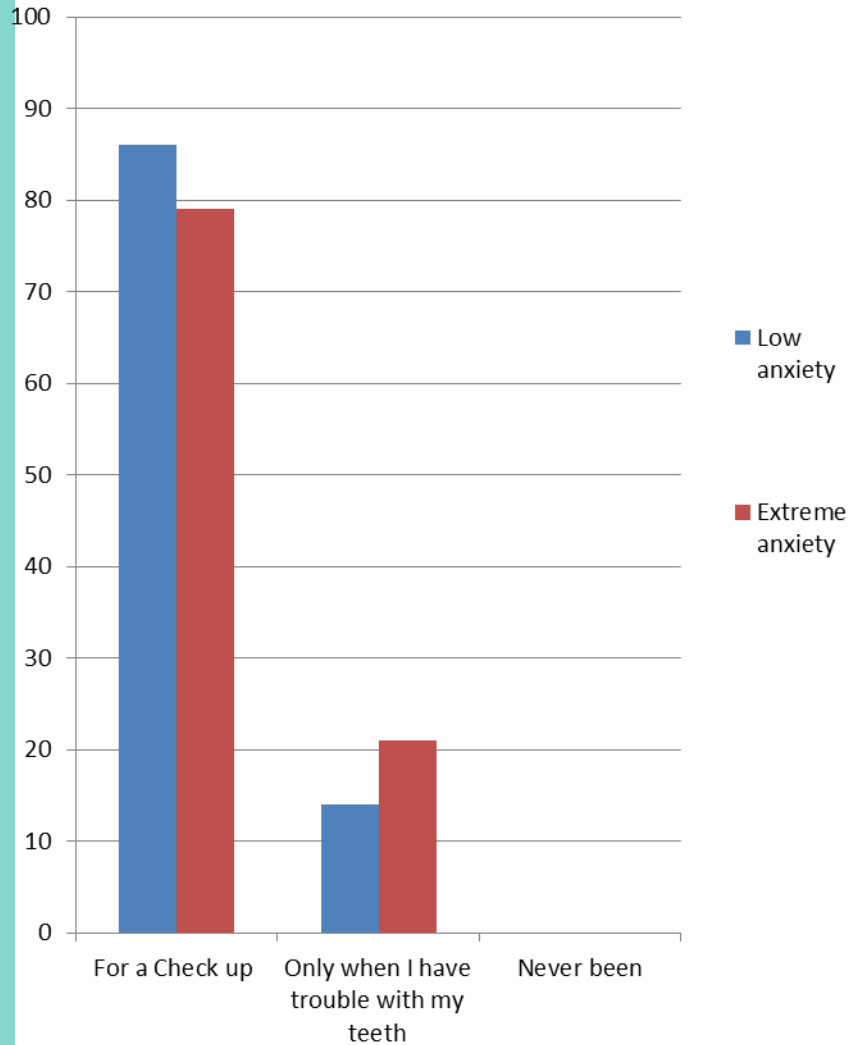


# Percentage of children rated extremely anxious on individual dental anxiety items, by country and age – 15 year olds

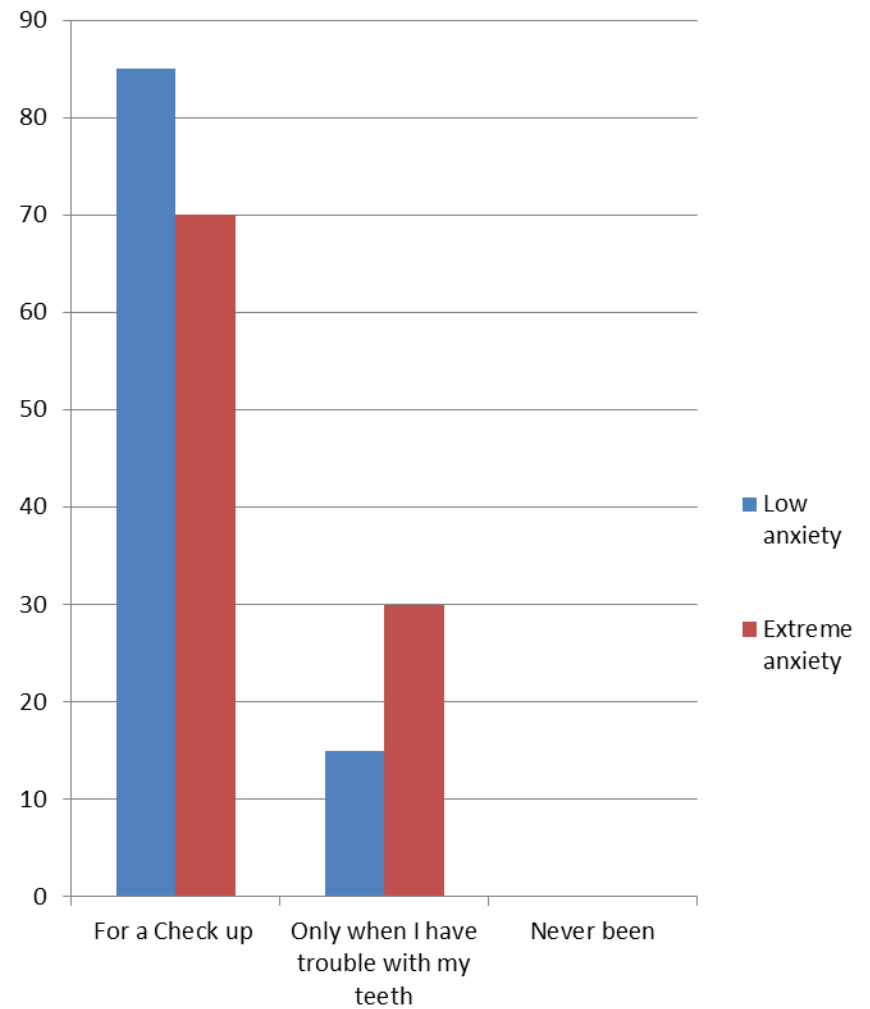


# Self-rated dental anxiety and dental attendance pattern

## 12 year olds



## 15 year olds



# Conclusion

- Improvements in attitudes - than 80% of 12 and 15 year olds reported attending the dentist for a check-up, and around 80% reported brushing their teeth twice a day or more
- About one in eight older children, 14% of 12 year olds and 10% of 15 year olds, were classified in the extreme anxiety group. Anxiety was more common among girls than boys, but there was no link with family deprivation
- Dental attendance, brushing, diet and smoking were all strongly associated with subjective oral health outcomes.

# Child Dental Health Survey 2013

The *NHS Information Centre* and *ONS* worked in partnership with the *National Centre for Social Research*, the *Northern Ireland Statistic & Research Agency*, and a team of academics from the **Universities of:**

- Birmingham
- Cardiff
- Kings College London
- Newcastle
- University College London

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