

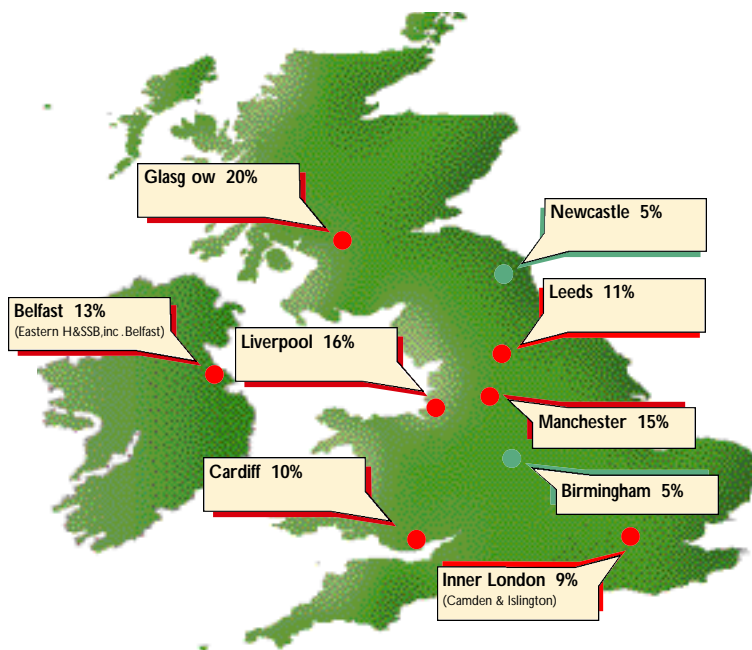
# Inequalities in dental health

November 1998

## Tooth decay is an avoidable blight on the lives of Britain's poorest young children

In Britain's poorest communities - for example, socially deprived urban areas of the North West, Yorkshire, South Wales, Scotland, Northern Ireland and Inner London - many children, some as young as two years of age, experience PAIN, DISTRESS, and DISFIGUREMENT caused by severe tooth decay affecting several of their baby teeth. Often the only treatment possible in such cases is extraction of the decayed teeth - usually under a general anaesthetic. This treatment in itself can be an upsetting experience.

Major UK cities showing the percentage of 5 year olds in 1998 who have had baby teeth extracted. <sup>1</sup>



This map shows that in Glasgow, Belfast, Cardiff, Liverpool, Manchester and Inner London between 10 and 20% of 5 year old children have already had at least one baby tooth extracted for tooth decay. In marked contrast in Newcastle and Birmingham - which have had fluoridation for at least 30 years - only 5% of 5 year olds have had an extraction. Water fluoridation reduces the need for dental extractions.

<sup>1</sup> Unpublished NHS data (1998).

### The key points:

General anaesthetic for tooth extraction is still too common amongst very young children living in poverty.

A "gas" anaesthetic is a general anaesthetic.

Tooth extraction is painful and often distressing - particularly for a very young child.

The overwhelming majority of extractions in young children are carried out as a result of tooth decay - and tooth decay is preventable.

1 in 3 children living in the poorest non-fluoridated wards in Liverpool can expect to have a tooth extracted under general anaesthetic before the age of 5.

The effects of traumatic dental experiences in childhood can last into adulthood.

# Disfigurement: Callum's story

**At the age of 2 1/2 Callum had twenty beautiful healthy baby teeth. Two years later he had so much tooth decay that he needed fourteen teeth extracted. Callum's mother says that by the time his teeth were removed they were nothing more than rotting stumps which were barely visible in swollen painful gums.**

Callum was about 3 years old when his parents first noticed that his teeth were discoloured. They took him along to their dentist who diagnosed tooth decay affecting almost all of his teeth. The decay was so widespread that fillings were out of the question. However, the dentist explained that he did not want to extract the teeth at that stage because Callum needed to keep as many as possible to help position his second teeth. Because the local water supply was deficient in fluoride, the dentist advised that both Callum and his one-year-old sister should start daily fluoride supplements.

At the age of 4 Callum became ill because of infection in his gums caused by the rotten stumps of his teeth. He was suffering severe pain and needed fourteen teeth removed under a general anaesthetic. For about a year afterwards his gums were so tender that he could eat only specially prepared soft foods.

Callum started school with just a few back teeth. He has had to put up with many cruel playground taunts, and was even asked by the school photographer not to smile! Now aged 9, Callum still has only a few back teeth and is waiting impatiently for his second teeth to appear. His gums are now so hard that he can eat most foods, but he does not

like people to see him eating, and is very reluctant to eat outside the home. His dentist has warned him that when his teeth eventually come through they are likely to be very crooked and that he will need a 'brace' to straighten them. This doesn't worry Callum, he just wants to have teeth like everyone else.

Callum's 7 year old sister (pictured here with Callum) has beautiful healthy teeth - including several of her second teeth. She has benefited from Callum's misfortune because her parents are now much more aware of how to prevent tooth decay than they were before. They are aware of the importance of fluoride, and very much regret that their children are denied the benefit of a fluoridated water supply. Both children regularly use fluoridated toothpaste, and because of Callum's problems also have a daily fluoride tablet.

Callum lives in Bolton where the natural fluoride level in the water supply is too low to protect against tooth decay.

In 1988 (just before Callum was born) Bolton Health Authority, together with 19 other health authorities in the Region, asked North West Water to fluoridate the water supplies because of the very high levels of tooth decay in the North West. The health authorities' requests were turned down, and North West Water continues to refuse to fluoridate supplies. It is highly likely that if North West Water had fluoridated the water, Callum, and thousands of children like him, would not have suffered the ravages of extensive tooth decay.

Callum should eventually have his second, permanent, teeth, and it is likely that he will keep most of them for the rest of his life. However it is unacceptable that privatised water companies are able to deny Callum and many thousands of other children in the North West and elsewhere the protection of fluoridated water.



Callum and his younger sister Sheridan

## Avoidable risk.

"In Glasgow the single most common reason for children under the age of 10 being given a general anaesthetic is for tooth extraction." - Dr Harry Burns, Director of Public Health, Greater Glasgow Health Board.

Every year throughout Britain HUNDREDS OF THOUSANDS OF GENERAL ANAESTHETICS are administered to young children for extraction of rotten teeth. Although the risk to each individual is small, the scale of the problem is such that inevitably a tragedy will occur from time to time. This risk is AVOIDABLE. Furthermore, the cost of such treatment represents a needless drain on scarce NHS resources.

## Thomas's story

Thomas is 11 years old. At the age of 5 he had four decayed baby teeth extracted under general anaesthetic at the local school clinic.

This early experience has had a huge impact on Thomas' life. Generally speaking, his self image and confidence seem to have suffered and his parents say it is almost impossible to get him to visit the doctor or the dentist.



Thomas's initial experience of extraction 6 years ago is still surprisingly vivid: 'When I woke up there was all blood in my mouth. It was all swollen and I couldn't talk and it hurt'. It is not a day his mum will forget in a hurry either: 'He had to be held down for them to give the injection - he was kicking and screaming. It was terrible, really upsetting.'

To those who blame parents for children's decayed teeth, Thomas' mum has this to say: 'We've done our best - you can't do any more than that can you? He comes from a good home'.

## Survey shows that childhood memories of tooth extraction can be carried into adult life

In addition to the immediate pain and trauma, the experience of tooth extraction in childhood can have longer term psychological consequences. For example, in the Government's national survey of adult dental health half the adults interviewed said that they could vividly recall a past experience at the dentist.<sup>2</sup> Significantly, "If the vivid experience occurred when the person was under ten years old it was most likely to be related to general anaesthetic". Such experiences can influence individuals' attitude to dentists and hence their ability to accept dental treatment as adults.<sup>3</sup>

## Study shows the impact of tooth extraction on young children's lives

Thomas and Callum's stories are by no means isolated examples of the harrowing effects of tooth decay on young children's lives. Tooth extraction is an unpleasant experience for anyone, and, for children often too young to understand what is happening, the process - which usually involves a 'gas' anaesthetic - can be very frightening indeed. The following quotes, taken from a recent study of children aged between 5 and 15 years who were interviewed with their parents one month after tooth extraction, clearly demonstrate the traumatic effect the experience has on their lives.<sup>1</sup>

## Pain and Distress

"When I woke up there was a streak of pain, I think it was from where the tooth had been."

"I was crying when I got home, I was still crying later because I had toothache, it hurt later that day."

"I was dead scared, I'd had it done before and when the mask went on I was screaming...."

"Sickening, it was horrible the gas, I felt like I was dying. I will never forget that feeling or the smell of the gas."

"All the blood came out and all the bleeding was in the sink"

"I haven't forgotten it. I still have nightmares about it. I will never forget it."

"He was terrible, he cried all the way home and didn't stop until 4 o'clock, he was crying most of that day."

"He was vomiting when I got home. His gums were sore so I went to the doctor and got some paracetamol. He was off school for two days."

## Making oral health a priority

Tooth decay is not a life threatening disease, and it is all too easy to place dental disease low on the list of NHS priorities. However, the extent of the problem in poorer communities, and particularly its impact on the quality of young children's lives, should be of concern to us all. Furthermore, tooth extraction under general anaesthetic carries the risk - albeit small - associated with any general anaesthetic. Tooth decay is a preventable disease which has largely been brought under control in affluent communities, but which continues to blight the lives of young children living in poverty. Prevention of tooth decay in socially deprived communities should rank high on the priority lists of both Government and health authorities.



<sup>1</sup> Bridgman, C: Morbidity following general anaesthesia for exodontia. MPH Thesis. University of Liverpool, (1993).

<sup>2</sup> Office of Population Censuses and Surveys, Social Survey Division: Adult dental health UK (1988) HMSO London.

<sup>3</sup> Crawford, A: *Dental attendance and dental care in socially deprived community*. PhD Thesis, University of Liverpool. (1993).

# Tooth decay is a preventable disease.....

Over 50 years of experience tell us that water fluoridation is the single most effective measure available to health authorities to reduce tooth decay rates.

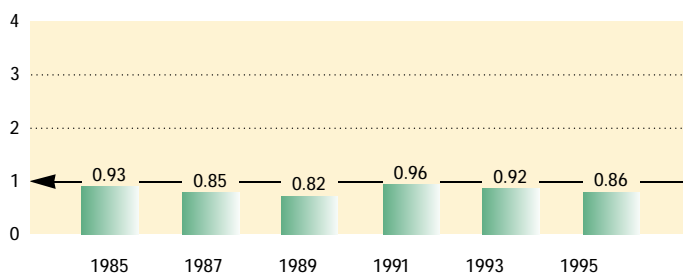
Water fluoridation reduces health inequalities by improving the dental health of the poorer people in Britain.

In areas where tooth decay rates are unacceptably high, fluoridation would cut disease levels in half.

## Water fluoridation has transformed dental health in the West Midlands. For example:

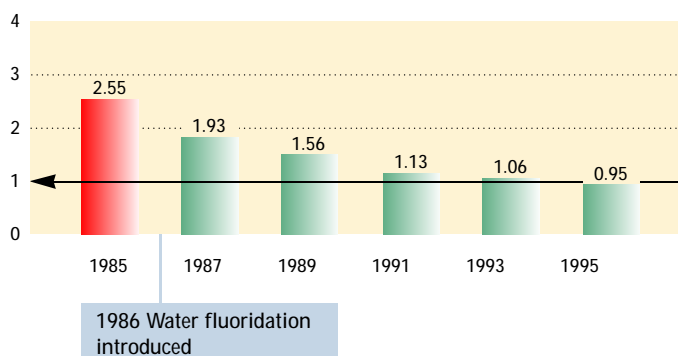
### South Birmingham

Birmingham was fluoridated in 1964. Since then, the dental health of 5 years old children has been consistently better than DOH targets.



### Sandwell

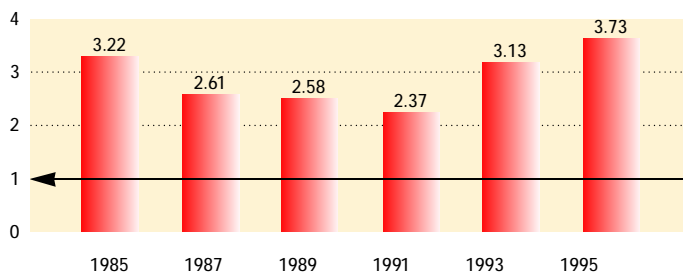
Sandwell was fluoridated in 1986. The dental health of 5 year old children has improved steadily, and is catching up with South Birmingham.



In the North West of England the water company has refused to fluoridate the water supply. Children's dental health has not improved over the past 10 years and remains considerably worse than the Department of Health's target.

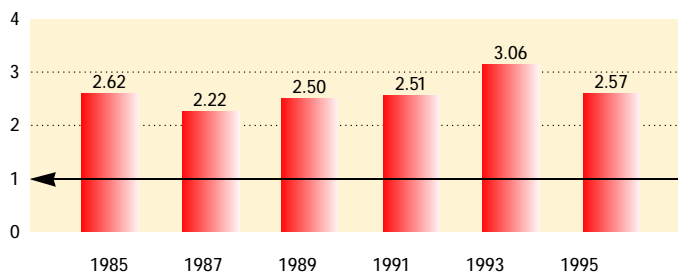
### Rochdale

Rochdale (non-fluoridated). The average number of decayed, missing and filled teeth in 5 year olds remains high.



### Blackburn

Blackburn (non-fluoridated). The average number of decayed, missing and filled teeth in 5 year olds is more than twice the level of the last Government target.



← DoH Oral Health Strategy target for the year 2003

## Support for fluoridation

The NATIONAL ALLIANCE FOR EQUITY IN DENTAL HEALTH is a consortium of over 40 top organisations campaigning to extend water fluoridation to improve the dental health of the UK's most vulnerable children. Supporting organisations include the British Medical Association, the British Dental Association, the NHS Confederation, the Royal College of Physicians, The Patient's Association and MENCAP.

In addition, around 30 MPs across all the major political parties are actively supporting fluoridation within parliament.

For further information, please contact the British Fluoridation Society, 4th Floor, School of Dentistry, University of Liverpool, LIVERPOOL, L69 3BX.

Tel: 0151 706 5216; Fax: 0151 706 5845; e-mail: bfs@liv.ac.uk. BFS web site is: <http://www.derweb.ac.uk/bfs/index.html>

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