

Oral Health Promotion & Community Water Fluoridation

Adults, Wellbeing and Health Overview and Scrutiny Committee 9th May 2024

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Aims of the Presentation

- Provide information on the Department of Health and Social Care (DHSC) consultation process to expand community water fluoridation schemes across the NE of England
- To update on the current position in relation to oral health
- To provide advice on next steps
- To seek multiple responses to the consultation

Statutory Responsibilities

- Primary care dental services are currently commissioned directly by NHS England and local authorities are statutorily required to provide or commission oral health promotion programmes (The Health and Social Care Act, 2012).
- Prior to 2022 local authorities had statutory responsibility and decision-making responsibilities for any new or varied water fluoridation schemes. This was included in our previous oral health strategy.
- The new Health and Care Act 2022 transferred responsibility for water fluoridation from LAs to the Secretary of State (SoS) in central government. The SoS now has responsibility for establishing any new water fluoridation schemes, or for varying or terminating existing water fluoridation schemes in England. This includes the cost of the scheme.

County Durham's Oral Health Promotion Strategy 2023 - 2028

County Durham's Oral Health Promotion Strategy 2023-2028

- In 2023 the [Oral Health Promotion Strategy](#) for County Durham was updated with water fluoridation being identified as an effective way of reducing inequalities in dental health.
- Water fluoridation alone, will not eliminate tooth decay but it is a key part of wider oral health programmes that when combined will reduce decay levels and the impact of dental disease for our residents.
- The updated strategy was supported by the Health and Wellbeing Board in 2023.



County Durham's Oral Health Promotion Strategy 2023-2028

The strategy aims to:

- Improve oral health of everyone living in County Durham.
- Reduce oral health inequalities
- Create supportive environments, working with communities and partners to promote oral health
- Contribute to good oral health across the lifecourse.

“Water fluoridation should be part of an overall oral health strategy, it is one intervention which should run alongside others and offers the best return on investment of oral health initiatives.”



Water fluoridation provides a universal programme



£1 spent = £12.71 (after 5 years)

£1 spent = £21.98 (after 10 years)

**Community Water
Fluoridation
The Evidence Base**



What we know

- Community Water Fluoridation **is effective.**
- Community Water Fluoridation **is safe.**
- Community Water Fluoridation **reduces inequalities.**
- Community Water Fluoridation **is cost effective.**
- Community Water Fluoridation **is sustainable.**

What we know

- Oral health is an integral part of overall good health and wellbeing.
- The impact of severe tooth decay has wide implications for children and families: pain, hospital admissions, and missed days from school.
- Tooth decay is the most common oral disease affecting children and young people with lifelong impacts. However, the benefits are across the all ages.
- Although largely preventable, a significant proportion of our residents still experience poor oral health.

What we know

- Strong evidence over many years that water fluoridation is associated with less dental caries and increase in the number of individuals with no caries. Also, an increase in the number of individuals with dental caries in areas where water fluoridation schemes are discontinued.
- Ensuring drinking water contains the recommended level of fluoride is an effective way to prevent tooth decay.
- Water fluoridation at levels within the UK regulatory limit (<1.5mg/l) is effective, safe, without any convincing evidence of adverse health outcomes.
- [Fluorosis](#) is a dental side effect of water fluoridation. In mild cases it appears as white flecks on teeth.
- The risks of fluorosis need to be balanced against the health risks of severe dental decay.

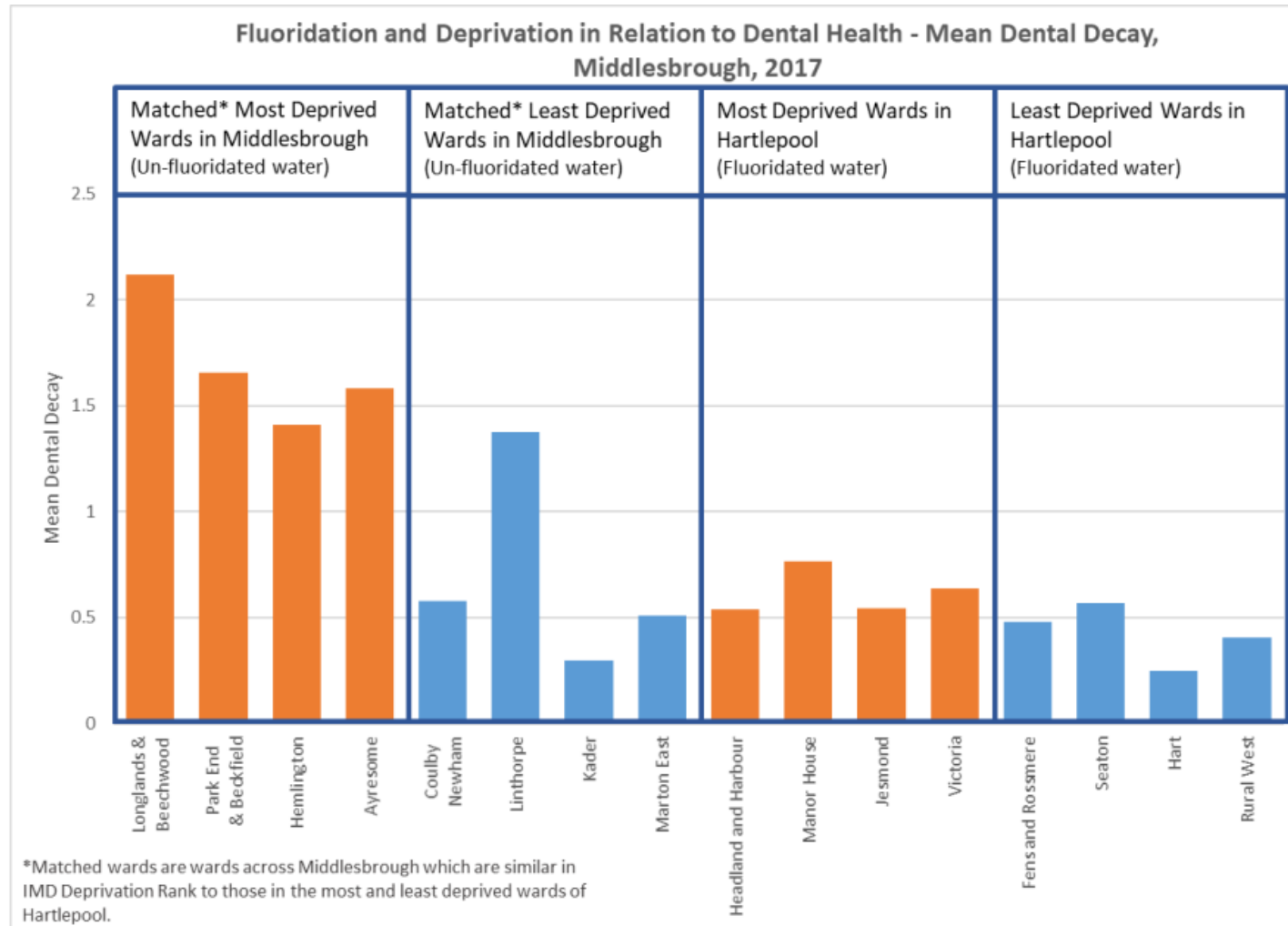
The Common Myths and Concerns

- **Fluoride is a poison/pesticide**
 - Fluoride is naturally present in water and in some areas of the UK it is naturally at levels similar to, or even slightly higher than, those seen in fluoridation schemes. Fluoride is a common element (the 13th most common element in the earth's crust). Fluoride sources originate with fluoride-bearing rocks which are then processed to produce a variety of materials. Fluoride does not change the taste of drinking water.
- **Is fluoridation mass medication?**
 - A medication is typically used to relieve symptoms. Fluoride is a mineral, not a medication. It is proven by decades of research to prevent tooth decay.
- **Why is fluoride being added to my water when it is used in toothpaste?**
 - Fluoridation works in addition to fluoride in toothpaste. It is a public health measure endorsed by the 4 UK Chief Medical Officers.
- **Why do some non-fluoridated areas have better children's dental health than some fluoridated ones?**
 - Fluoridation is effective, but the prevalence of tooth decay depends on a wide range of factors including deprivation, dietary habits and regular tooth brushing with a fluoride toothpaste.
- **Is there any risk to pregnancy with fluoridated water?**
 - There is no evidence that fluoridated water at controlled levels has a negative impact on fertility, conception, pregnancy, perinatal health, childbirth or mother and baby wellbeing. There are benefits to developing children (which is a major reason for implementing fluoridation). Indeed, fluoridated water is the preferred method of getting the benefits of fluoride in the diet to other alternatives (for example supplements, toothpaste).

Areas of Fluoridation in the NE

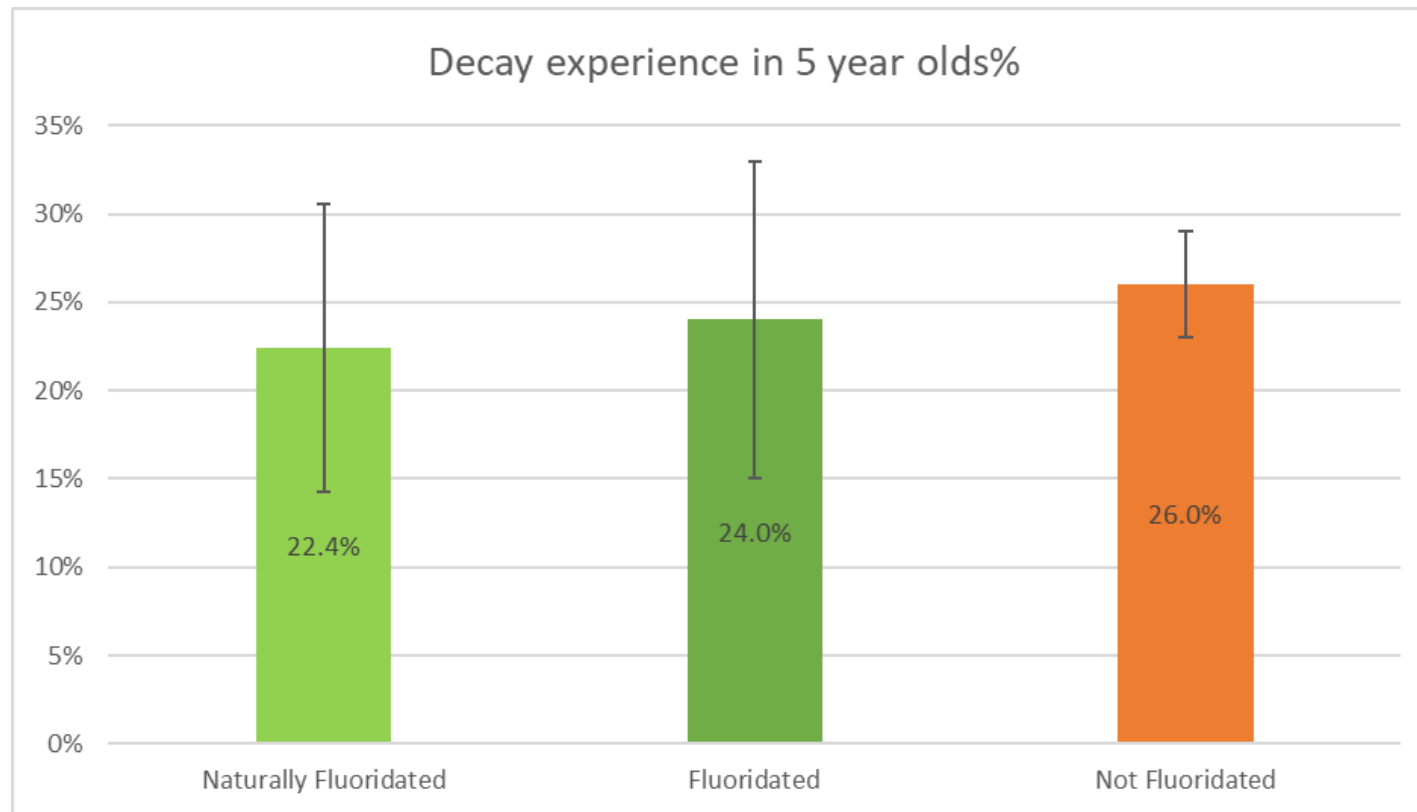
- The North East has a long history of fluoridation, both natural and artificial.
- The areas of the North East that benefit from natural fluoridation are Hartlepool, parts of east Durham and parts of Sunderland, however, only Hartlepool and parts of east Durham have naturally fluoridated water at or near the optimum level for dental health.
- Northumbrian Water has supplied artificially fluoridated water to the North East from the late 1960s including County Durham, (Chester le Street, Consett, and Stanley) Northumberland (Alnwick, Hexham, Cramlington), North Tyneside, Newcastle, Gateshead.

The gap in oral health between the most and least deprived wards (NE region)



County Durham – tooth decay, 5 year old

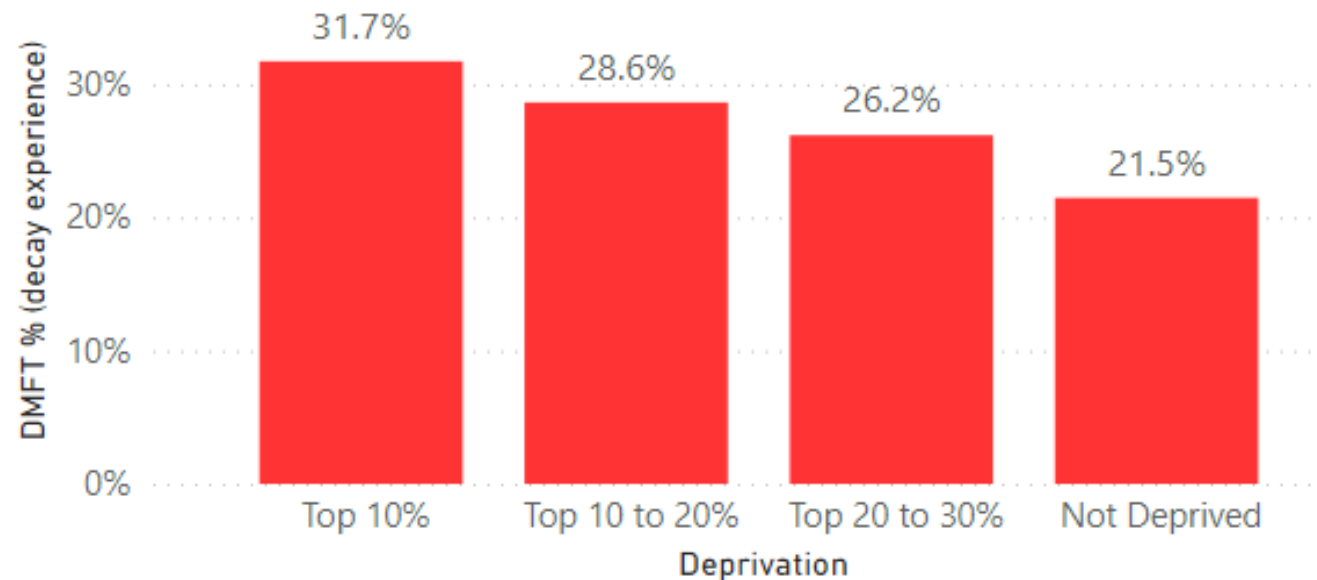
26% of 5 years old children living in non-fluoridated areas have decay experience. This is 2% higher than those living in fluoridated (24%) and 3.6% higher than those living in naturally fluoridated areas (22.4%).



County Durham - Inequalities

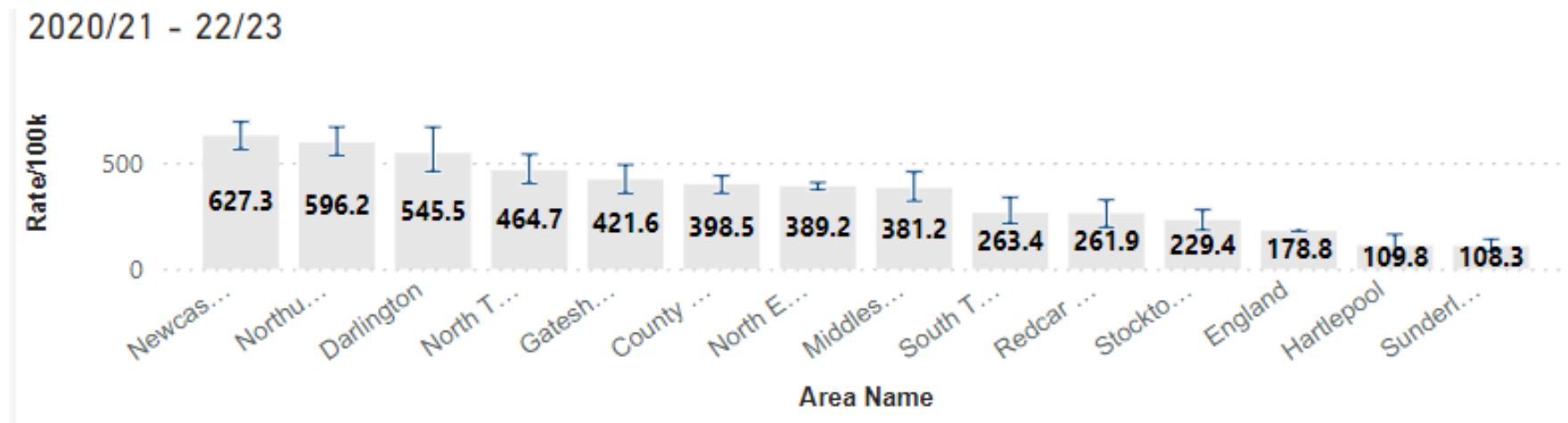
In County Durham the prevalence of experience of dental decay was 21.5% in 5-year-olds living in the least deprived areas compared with 31.7% in those living in the most deprived areas.

% DMFT by Deprivation Decile

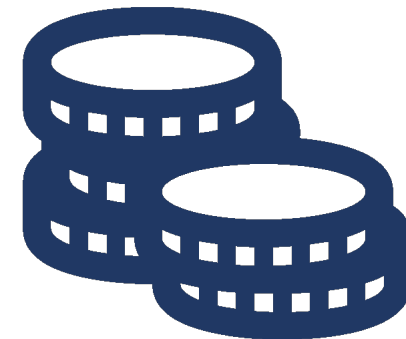


County Durham Hospital Admissions for Dental Caries (0-5 years)

- 2020/21 – 22/23 shows County Durham’s hospital admission rate for tooth decay requiring tooth removal (0-5 yrs) was 398.5 per 100,000. That’s 120 children per year.
- These children are receiving general anaesthetic which has inherent risks for what is a preventable disease.



Cost Effectiveness



Cost Effectiveness

The economic benefits associated with reducing dental caries in five-year-old children:

- The **estimated return for £1 investment into a water fluoridation scheme would be £12.71 after 5 years and £21.98 after 10 years.**
- In areas of high deprivation where decayed missing or filled teeth (DMFT) is greater than the average for England, the return on investment will be greater.
- The 2023 **LOTUS study** optimal water fluoridation had a cost of £10.30 per person, NHS treatment costs were £22.26 lower per person (5.5%), and patients paid £7.64 less (2%) in dental charges.
- Estimated that if 62% of the adults and teenagers in England attended NHS dental services at least twice within 10 years, the total return on investment would have been £16.9 million between 2010 and 2020.
- The costs of water fluoridation would be recovered, and £16.8 million saved on top as a result of lower NHS dental treatment costs. [The LOTUS Study: Fluoridation for Adults | The University of Manchester](#)

General Anaesthetic Potential Cost savings to the local NHS

- Each episode of GA costs £1387
- Reducing rates of GA can generate cost savings to the local health economy which could be invested in prevention initiatives to further reduce decay levels.
- The potential cost savings if the rate of GAs in fluoridated Hartlepool (GAs per 100,000 in 0-19 child population) is replicated in non- fluoridated areas of the North East. A potential of **£731,200** could be saved. (County Durham - £339,858)

Source: [Hospital teeth extractions 0-19Y 2022-2023.ods \(live.com\)](#)* based on NHS refence costs 2020/21 for multiple extractions for under 18s at £1387

DHSC Consultation



DHSC Consultation

- [Faster, simpler and fairer: our plan to recover and reform NHS dentistry](#) sets out a focus on prevention of tooth decay. This includes the long-term ambition to systematically bring water fluoridation to more of the country, with a particular focus on the most deprived areas, which stand to benefit most. Government policy.
- There is a legal duty on the Secretary of State to undertake a formal public consultation before entering into new fluoridation arrangements, or varying existing agreements to community water fluoridation schemes across the NE of England.
- <https://www.gov.uk/government/consultations/community-water-fluoridation-expansion-in-the-north-east-of-england>

Consultation Process

1. Led by the DHSC and follows the UK CMO's position that it is a complementary strategy to other effective ways of increasing fluoride use.
2. Expansion of fluoridation in the NE is the current priority.
3. Statutory 12-week consultation 25 March 2024 -17 June 2024.
4. Concerns or enquiries can also be raised via a dedicated DHSC email address waterfluoridationconsultation@dhsc.gov.uk
5. Water fluoridation was part of the oral health strategy 2023, consulted upon locally.
6. Local authority role to ensure residents and key stakeholders are encouraged to provide their feedback on the proposals for expansion to community water fluoridation for County Durham and the NE.
7. A local consultation and engagement plan has been developed.

National Support for Water Fluoridation

Numerous health organisations support water fluoridation as a public health intervention to improve oral health and reduce inequalities. The below are just a few examples of stated support and useful references:

- The four Chief Medical Officers of the UK [Water fluoridation: statement from the UK Chief Medical Officers - GOV.UK \(www.gov.uk\)](#)
- The Chief Dental Officer [NHS England » Statement of support for water fluoridation by the Chief Dental Officer for England](#)
- The British Dental Association [Dentist say seize the moment as CMOs back water fluoridation \(bda.org\)](#)
- The BMA strongly supports water fluoridation on the grounds of effectiveness, safety and equity. [bma-consultation-response-prevention-green-paper-oct-2019.pdf](#)
- The British Association for the study of Community Dentistry [BASCD 2023 Statement on Community Water Fluoridation is launched! - BASCD](#)
- The British Fluoridation Society [Fluoridation of Drinking Water - British Fluoridation Society \(bfsweb.org\)](#)
- Royal College of Paediatrics and Child Health [The case for fluoridation to protect children's oral health | RCPCH](#)
- The British Society of Paediatric Dentistry Position Statement in support of fluoridation [Microsoft Word - Fluoridation position statement August 2016.docx \(bspd.co.uk\)](#)

Regional and Local Support for Water Fluoridation

- The dental profession, medical colleagues, the ICB and all 12 Local Authorities in the North East have expressed their support for the Government's proposal to extend fluoridation.
- Health and Wellbeing Boards and/or Health Scrutiny Committees have recognised the impact water fluoridation can have to improve oral health and wellbeing.
- North East North Cumbria Integrated Care Board support for the extension of water fluoridation across the NE.
- The Association of Directors Public Health NE (ADPHNE) and the Regional Dental Committee all support water fluoridation.

Professor Chris Vernazza, Head of School of Dental Sciences, Newcastle University, Professor of Oral Health Services and Honorary Consultant in Paediatric Dentistry:

“In my clinical work, I see the devastating impact of dental decay on children and their families and every time I remove multiple teeth from a child under general anaesthetic, I am deeply saddened. There is good evidence for the benefits and safety of water fluoridation and the economic arguments stack up too. I fully support implementation of fluoridation in our region as a key part of the package required to prevent this widespread disease”.

The regional Local Dental Committee

The regional Local Dental Committee have expressed their full support to extend water fluoridation, recognising that:

- **Tooth decay is largely preventable but remains a serious public health problem in the NE**
- **Water fluoridation is an effective and safe public health measure**
- **Water fluoridation can reduce the prevalence, severity and impact of tooth decay**
- **Water fluoridation reduces health inequalities, and the greatest reductions in tooth decay are seen in areas with high levels of deprivation**
- **Water fluoridation significantly reduces hospital admissions for tooth extractions**
- **Water fluoridation is a very cost-effective public health intervention**

Next Steps

1. Seek response from Adults, Wellbeing and Health Overview and Scrutiny Committee on the DHSC consultation on the expansion of the community water fluoridation scheme.
2. The consultation will also be presented to the Health and Wellbeing board, County Durham Care Partnership and with constituent organisations.
3. Individual professional responses.
4. Any further suggestions for consultation responses.

Any Questions?

