CITY OF YORK COUNCIL

York Health and Wellbeing Board

Health and Wellbeing Board *21 Jan 2026*
Report of the Director of Public Health

Supporting Water Fluoridisation in York

Summary

1. The addition of fluoride to the water supply in a local area brings with it universal improvement to oral health in a population, with the largest effects seen in children and those from more deprived backgrounds.

2. Currently, the water supply in York does not contain more than a trace amount of fluoride. In England, drinking water in around 6m households contains an amount of fluoride which has a meaningful effect on oral health, either through naturally occurring sources of fluoride (i.e. rocks) or through the addition of fluoride during water processing and supply in some areas, which dates back to the 1960s.

3. This report brings together key reference sources and summarises relevant evidence on water fluoridation. The aim is to provide a well-informed evidence base to support the development of consultation responses and strategic decision-making.

4. Health and Wellbeing Board members are asked to support the principle of fluoridating the water supply in York, in support of the improvement of oral health within the city. The ultimate decision and costs of doing so rest with the Secretary of State, not with the Board. However, the 10 year Health Plan for England has set out an intention from government to roll out pilots and implementation of water fluoridation (starting with the North East region) and leaders of Yorkshire and the Humber councils have been asked to state their support or otherwise to the Department of Health and Social Care; thus a positive endorsement of the Health and Wellbeing Board to this proposal would ensure a clear system wide recommendation of York partners to be heard in central government.

Background

5. Dental health continues to be a major public health concern, with 21,162 children aged 5 to 9 admitted to hospital in 2024/2025 due to tooth decay. These treatments cost the NHS around £40.7 million annually, much of which is attributed to preventable dental issues. Dental caries are the leading cause of hospital admissions in the 5-9 age group.

6. Maintaining good oral health is vital. This is for not just for basic functions like eating, speaking, and sleeping, but also for social wellbeing, confidence, and active participation in everyday life. Poor dental health can lead to pain, infection, disrupted sleep, and lost time at school or work, with ripple effects felt by families and wider communities.

7. Tooth decay is the most common oral health issue affecting children in England. It can develop early in life and lead to long-term health consequences.

8. Despite general improvements in dental health across England over recent decades, significant disparities in outcomes persist among different population groups.

9. Water fluoridation is one component of a broader approach to improving oral health, especially for children. It complements (rather than replaces) other key interventions such as supervised toothbrushing, fluoride varnish applications, and sugar reduction efforts.

10. In March, the government announced a national supervised toothbrushing scheme targeting 3–5-year-olds in the most deprived communities. Funding allocations are based on the number of children aged 3–5 living in the most deprived 20% of Lower Super Output Areas (LSOAs), as defined by the Indices of Multiple Deprivation. York received just over £20,000 and a supply of free toothbrushes and toothpaste from Colgate-Palmolive, which has committed to providing these products for five years.

11. The programme was rolled out over summer 2025, initially targeting vulnerable groups including the traveller community, women's refuge, homeless hostel, and refugee hotel in York. Further expansion is planned, in deprived areas, the women's open prison, food banks, and local parenting programmes.

12. For the past three years, the Public Health Team at CYC has commissioned a local supervised toothbrushing programme targeting early years settings in deprived areas and the city's two special schools. Currently, nine early years settings are enrolled.

13. Launched in 2023, the Humber and North Yorkshire ICB's Prevention, Access and Treatment (PAT) programme targets primary school-aged children. Initially rolled out in Hull, North Lincolnshire, and Northeast Lincolnshire, it expanded to York in late 2024.The PAT programme complements the CYC initiative by focusing on older children (ages 5–11). A key feature is dental access: children without an NHS dentist are offered one if treatment is needed. Additionally, fluoride varnish is applied twice a year with parental consent.

The evidence base for water fluoridation

Water Fluoridation is Safe and Effective

14. Robust scientific evidence supports water fluoridation as a safe and effective approach to improving dental health. Fluoridating water helps to strengthen dental enamel, which prevents dental decay (caries).[1]

15. Numerous expert organisations support water fluoridation as a public health intervention to improve oral health and reduce inequalities, including:

- The four Chief Medical Officers of the UK[2]
- The Chief Dental Officer NHS England [3]
- The British Dental Association[4]
- Royal College of Paediatrics and Child Health [5]
- The British Society of Paediatric Dentistry[6]

16. Fluoride occurs natural at very low levels in most drinking water in England. However, fluoride is also added to water in some areas and

[1] https://researchbriefings.files.parliament.uk/documents/POST-PB-0063/POST-PB-0063.pdf
[2] Water fluoridation: statement from the UK Chief Medical Officers - GOV.UK (www.gov.uk)
[3] The Chief Dental Officer NHS England » Statement of support for water fluoridation by the Chief Dental Officer for England
[4] The British Dental Association Dentist say seize the moment as CMOs back water fluoridation (bda.org)
[5] Royal College of Paediatrics and Child Health The case for fluoridation to protect children's oral health | RCPCH
[6] The British Society of Paediatric Dentistry Position Statement in support of fluoridation Microsoft Word - Fluoridation position statement August 2016.docx (bspd.co.uk)

there are some areas in which water has naturally high levels of fluoride.

17. Around 10% of England's population (6 million people) currently benefit from fluoridated water. Regions such as the West Midlands and Northeast show consistent improvements in oral health due to long-standing fluoridation. It is supported by decades of international evidence showing that:

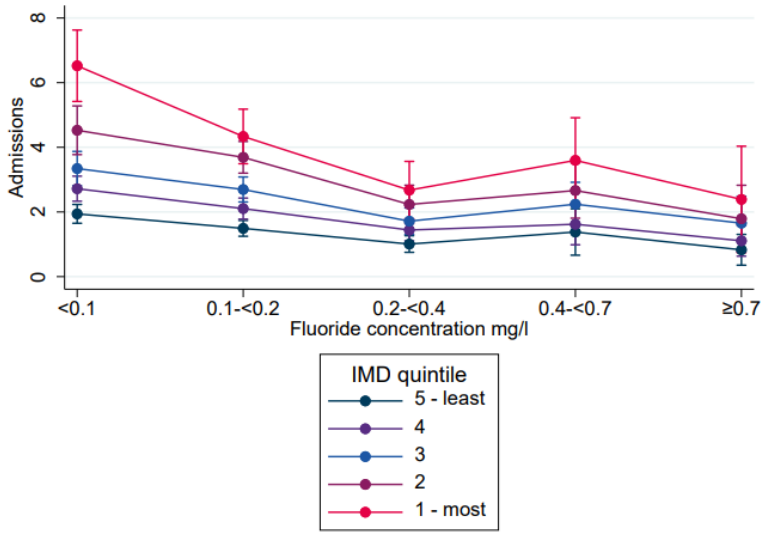
    - It reduces caries prevalence and increases the number of caries-free individuals.

    - Discontinuing fluoridation leads to higher rates of decay.

18. Such is the success of water fluoridation in England that the 10 Year Health Plan aims to expand fluoridation in the Northeast by 1.6 million people by 2030, and refurbish existing schemes in the Northeast, West Midlands, and East of England, benefiting 6 million additional people.

19. The graph below, taken from the 2022 OHID review, shows that at a small area level, increased fluoride concentration in the local water supply is correlated both with a lower rate of hospital admissions for tooth extraction and a narrowing of the inequalities gap in tooth extraction between most and least deprived areas.

Figure 7 - Number of admissions for carious tooth extraction per MSOA by fluoride concentration, stratified by IMD quintile, adjusted for age and sex, standard errors adjusted for 316 local authority clusters



20. In addition, where water fluoridation has been reversed – for instance in parts of Canada, there is good evidence of a negative impact on young people's oral health. The city of Calgary, which ceased water fluoridation in 2011, saw a rate of caries-related dental treatment under general anaesthetic which rose between the 4th and the 8th year following cessation from 22 to 45 per 10,000 children, whereas in neighbouring Edmonton, which continued fluoridation, a much lower rise was observed in the same period, from 18 to 24 per 10,000 children.[7]

Fluoridation is a Cost-Effective Public Health Investment

21. Water fluoridation is a cost-effective public health intervention. The largest and most robust recent studies – LOTUS[8] and CATFISH[9] – found water fluoridation to be both effective and cost effective.

22. Analysis done in the North East of England in 2024, suggests that if they are to expand their water fluoridation programme to an additional 1.6 million residents they will deliver a net financial benefit of £315 million over 40 years. This results from £610 million in monetised benefits and £294 million in total costs to deliver fluoridation.[10] Examples of how fluoridation will lead to savings include: reduced demands on dental services; fewer anaesthetics for teeth extractions; and improved productivity from fewer missed workdays.

Fluoridation Reduces Health Inequalities

23. Fluoridation's key strength is its equity: it benefits the entire population, particularly those least likely to access dental care. Children and vulnerable populations gain the most, especially those in the most deprived areas.

24. The 2022 OHID water fluoridation monitoring report for England[11] reported that children living in the 20% most deprived areas saw a 25% lower chance of dental caries when living in areas with a fluoridation scheme compared to areas without.

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[7] Community water fluoride cessation and rate of caries-related pediatric dental treatments under general anesthesia in Alberta, Canada - PMC
[8] The LOTUS Study: Fluoridation for Adults | The University of Manchester
[9] The CATFISH study: An evaluation of a water fluoridation program in Cumbria, UK - Goodwin - 2024 - Community Dentistry and Oral Epidemiology - Wiley Online Library
[10] https://assets.publishing.service.gov.uk/media/66014cd665ca2f67417da764/impact-assessment-community-water-fluoridation-expansion-in-the-north-east-of-england.pdf
[11] Water fluoridation: health monitoring report for England 2022 - GOV.UK

Health effects of water fluoridation.

25. The findings of the 2022 health monitoring report (OHID 2022) are consistent with the view that water fluoridation at levels within the UK regulatory limit (<1.5mg/l) is an effective, safe, and equitable public health intervention to reduce the prevalence, severity, and consequences of dental caries, without any convincing evidence of adverse health outcomes.

26. This report finds the same as many international studies and reviews with regards to adverse health outcomes.

27. The 2028 OHID review notes that "Taken alongside the existing wider research, our results do not provide convincing evidence of higher rates of hip fracture, Down's syndrome, kidney stones, bladder cancer, or osteosarcoma (a cancer of the bone) due to fluoridation schemes".[12]

28. There are extensive dental health benefits to fluoridation as described throughout this report. However, dental fluorosis (cosmetic changes to the teeth) can sometimes occur if children's teeth are over-exposed to fluoride when they are developing. Evidence does not suggest this is harmful.

29. In the UK, fluoride levels are strictly regulated (the World Health Organization recommends a maximum level of 1.5 milligrams of fluoride per litre of water (mg/L)), so fluorosis is generally mild and primarily a cosmetic issue. Fluorosis typically appears as white flecks on teeth in mild cases. A 2024 Cochrane review concluded that, in areas with fluoride in water in line with safe limits of 0.7 mg/L of fluoride up to 40% of people may have fluorosis and 12% of people could be dissatisfied by how their teeth looked due to fluorosis.

30. Dental fluorosis can be treated according to its severity. Treatments include tooth whitening, coating the tooth with a hard resin (bonding), and crowns and veneers.

31. The risks of fluorosis need to be balanced against the health risks of severe dental decay: pain causing loss of sleep in young children, acute infections sometimes needing antibiotics, and increased rates for general anaesthetic use.

[12] PHE publishes water fluoridation health monitoring report - GOV.UK

Public Opinion

32. In England, a recent study published in June 2021 assessed public attitudes in five areas in the North East of England, and found that 60% of respondents were in favour of adding fluoride to the water supply to prevent dental decay, while only 16% were opposed.[13]

Additional considerations and legislation

33. The implementation of water fluoridation involves a range of additional factors and requires national legislation. Since the 2022 Health and Care Act, the decision to add fluoride to local water supply rests with the Secretary of State for Health and Social Care.

34. The successful pilot and subsequent rollout of fluoridation in the North East indicates that the government would like to continue towards universal coverage in England, as supported by the 10 year health plan.

35. We await further guidance from government around the precise mechanisms for this to occur. Key considerations around implementation include:

    - Which organisation(s) will be responsible for covering various costs associated with fluoridation, including the construction and maintenance of the necessary infrastructure, procurement of fluoride compounds, and ongoing regulation, monitoring, and adjustment of fluoride levels in line with safety standards.

    - How water is distributed across regions - given that water supplies often cross local authority boundaries, it is important to understand which geographical areas will be affected by fluoridation

    - Whether residents in those areas have been appropriately informed and consulted, and what the potential impacts might be on neighbouring populations.

36. We are aware that several areas are being considered to ‘go next’ in terms of regional roll out of fluoridation, and a consistent positive voice on the issues from all local authority areas across Yorkshire and the Humber (covered by one single water company, Yorkshire Water) would stand us in the best stead for likely announcements in 2026 on the next step areas.

[13] https://www.nature.com/articles/s41415-021-3074-0

Consultation

37. This paper seeks to gain the Health and Wellbeing Board's support in principle for the public health benefits of the addition of fluoride to drinking water in York. This will enable our council leadership to indicate York's support to the Secretary of State. If and when national government decides to recommend implementation, this may be further reinforced by nationally-led public consultation.

Conclusions

38. Tooth decay remains a major, but preventable health challenge, especially for children living in the most deprived areas in York. Water fluoridation offers a proven, safe, equitable, and cost-effective solution that works quietly and continuously to protect teeth and reduce inequalities.

39. There is public support for water fluoridation. In combination with other oral health strategies, fluoridation has the power to significantly improve outcomes across York, especially for the most disadvantaged.

40. Whilst the powers do not rest with Health and Wellbeing Boards to introduce fluoridation, support in principle from local health partners will aid decision-making in central government. This issue has on occasion been controversial in the past, but with the strengthened evidence-base over the last decade now is a good time for system partners in the city to state with a clear voice their support for this measure.

Strategic/Operational Plans

41. Our Health and Wellbeing Strategy 2022-2032 includes a commitment to 'Start Good Health and Wellbeing Young', with oral health as a key aspect of universal health improvement identified in other partnership strategies, for instance our RAISE York family hub core priorities.

Recommendations

The Health and Wellbeing Board are asked to consider:

i. Supporting the principle of the addition of fluoride to the water supply covering York residents.

Reason: to improve the oral health of residents in York, and reduce inequalities in oral health outcomes

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Co-Author's Name *Title* *Dept Name* *Organisation name* *Tel No.*	**Report Approved** *tick* **Date** *Insert Date* *Chief Officer's name* *Title* **Report Approved** *tick* **Date** *Insert Date*

Specialist Implications Officer(s) *List information for all i.e*
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Wards Affected: *List wards affected or tick box to indicate all [most reports presented to the Health and Wellbeing Board will affect all wards in the city – however there may be times that only a specific area is affected and this should be made clear]* **All** *tick*

For further information please contact the author of the report
Background Papers:

***All relevant background papers must be listed here**. A 'background paper' is any document which, in the Chief Officer's opinion, discloses any facts on which the report is based and which has been relied on to a material extent in preparing the report*

Either the actual background paper or a link to the background paper should be provided.

Annexes

***All annexes to the report must be listed here**. Any paper which is supplementary to the main report, and intended to be read with it, should be referred to in the report as an 'annex'. Each annex should be a separate document to the report and given a number or a letter, e.g. 'Annex A' and be marked accordingly on the first page. Also state which if any are 'exempt' with a clear reason why.*

Glossary

***A separate document must be attached to each report** which clearly lists in alphabetical order any abbreviations used within the report and its associated annexes.*

To note

42. This document contains a small amount of content generated by Artificial Intelligence (AI). AI-generated content has been reviewed by the author for accuracy and edited/revised where necessary. The author takes responsibility for this content.