

Costs and Cost Effectiveness of Water Fluoridation

Set up and running Costs

The initial feasibility study commissioned from Yorkshire Water by Hull City Council has estimated the capital and operating costs of a potential local fluoridation scheme.

Funding for the capital costs (estimated to be approximately £1.6 million to £2 million for the potential Hull scheme) would be provided by Public Health England (PHE). The annual operational costs of fluoridation schemes are the responsibility of local authorities, as are the cost of feasibility studies and consultation. The potential Hull scheme has an estimated operational cost of approximately £330 thousand per year.

Initial discussions have been held with NHS Hull Clinical Commissioning Group (CCG) as well as other NHS partners, who have expressed support for water fluoridation and a willingness to consider contributing towards the operational costs. Further discussions would be required with all relevant stakeholders regarding the specifics of meeting the ongoing operational costs of a scheme.

Return on Investment / Cost Effectiveness

Cost-effectiveness calculations are based on comparisons between fluoridated and non-fluoridated areas and take into account the fact that only a small proportion of water supplies are actually drunk or used in food preparation.

The cost-effectiveness of any fluoridation scheme is dependent on the local costs of the scheme compared to the savings in the treatment of dental decay and disease, reduced hospital admissions and the indirect or societal costs of the disease and its consequences.

The cost-effectiveness of fluoridation will be greater in areas with poorer dental health. These are generally areas with high levels of deprivation.

The return-on-investment for water fluoridation for 0 to 5 year olds is estimated to be between 3 to 15 times greater than comparable targeted oral interventions such as supervised tooth brushing programmes and fluoride varnish programmes.

Based on the most expensive estimate from the initial feasibility study, fluoridation is estimated to generate £7.22 savings for every £1 spent for 0 to 5 year olds (reduced treatment costs and time off work for parents). The programme is estimated to break-even (for 0 to 5 yr olds) in its second year (calculated using PHE's Return on Investment of Oral Health Interventions tool).

[PHE Return on Investment of Oral Health Interventions Tool](#)

Further work is ongoing locally to calculate the estimated potential costs and savings from water fluoridation to inform decision making.

Please note, this document will be updated as and when we receive more feedback on this particular topic.