Written evidence submitted by David William Forrest (HSC0019)

1. PREAMBLE

I would like to make a written statement to the Health and Social Care Select Committee in relation to the Government's White Paper *"Integration and Innovation: working together to improve health and social care for all"* [ref 1] in relation to the proposals to confer additional powers on the Secretary of State for Health and Social Care. Specifically, the proposal to return responsibility for water fluoridation proposals and public consultations to the Secretary of State for Health and Social Care.

2. INTRODUCTION

If I could first introduce myself. My name is Dave Forrest and I am a retired Chartered Engineer who spent most of my working life in the military aerospace industry. This industry is characterised by decision making based on logic, reasoning and proof - there is no place for guesswork and risk taking (particularly where people's lives may be at stake). It is this background that has tended to condition my analytical approach to most subjects.

My interest in water fluoridation started around 20 years ago, shortly after retirement. I would not describe myself as an activist – I'm not a member of any proposing or opposing group; I'm more of an analyst and try to be as objective as possible in both analysing data and reporting any findings.

I would like to comment on the references to water fluoridation in the White Paper with the relevant extracts included for completeness (*shown thus*) with the paragraph reference numbers against the appropriate comments.

3. SUMMARY

The proposal to return responsibility for water fluoridation proposals and public consultation to the Secretary of State for Health and Social Care is both surprising and deeply concerning. It is considered a retrograde step from the current legislation which could lead to the public water supply system being used to deliver a prophylactic to a population without either their individual informed consent or, the approval of their democratically accountable local bodies.

The reasons for removing responsibility from local authorities are challenged, a judicial review of the current legal status is recommended, the affordability of water fluoridation is questioned and problems with public consultation discussed. This is not a treatise on water fluoridation, but is limited to only commenting on those references to it in the White Paper. Parallels are drawn between the current COVID 19 pandemic and water fluoridation where appropriate.

Water fluoridation is a controversial, discredited, expensive and archaic practice. The government's decision to include it in modernising the health service defies logic.

4. USURPING LOCAL AUTHORITY DECISION-MAKING. Paragraph 5.133

Since 2013, local authorities have had the power to propose, and consult on, new fluoridation schemes, variations to existing schemes, and to terminate existing schemes. The Secretary of State for Health and Social Care has responsibility for approving any proposals submitted by local

authorities. Local authorities have reported several difficulties with this process including the fact that local authority boundaries are not coterminous with water flows, which requires the involvement of several authorities in these schemes, in a way which is complex and burdensome. In addition, local authorities are responsible for the oversight of revenue and costs associated with new proposals, including feasibility studies and consultations, while having no direct financial benefit from any gains in oral health

Prior to the "Health and Social Care Act 2012" [ref 2] (the last major reform of the NHS) decisions on water fluoridation schemes were taken by the Department of Health through Strategic Health Authorities (SHA's). The 2012 Act transferred responsibility to local authorities, the view being [ref 3]: -

"……. that it is appropriate that decisions on fluoridation are locally determined. Local authorities, as democratically accountable bodies are viewed as being best placed to make a decision on behalf of their local population."

Although the current decision-making process has shortcomings, at the heart of it there is opportunity for local people to have their say. The proposal to return decision-making on water fluoridation schemes to central government is therefore considered a backward step. The reasons being given in the White Paper are worthy of examination: -

"Local authorities have reported several difficulties with this process including the fact that local authority boundaries are not coterminous with water flows, which requires the involvement of several authorities in these schemes, in a way which is complex and burdensome".

It is quite likely that the "local authorities" referred to are those involved with a proposed fluoridation scheme in the North East of England. The so-called "Durham Scheme" (Durham County Council being the lead local authority) proposes extending water fluoridation to nearly 1 million people in that area. Despite the so called "several difficulties" they have managed to overcome them and have indeed been given approval from the Secretary of State for Health and Social Care [ref 4] to proceed to the next stage (public consultation). This hardly seems justification for such a radical change to the process for progressing water fluoridation and is more indicative of a strong dental lobby influencing government policy.

It should be borne in mind that water fluoridation schemes are intended to target socially disadvantaged young children with poor dental health. This target cohort is not widespread across the country but are concentrated in local areas. Fluoridated water cannot be specifically directed to these local areas – the water goes to wherever the water distribution system takes it. This is one of the major weaknesses of water fluoridation in providing any benefit to the young people it is aimed at.

Changing the decision-making from local authorities to central government will not change the water distribution system. Water flows will still cross local authority boundaries so cooperation and consultation between local authorities would still be needed – unless of course central government intend to by-pass local authorities.

The last sentence of the White Paper paragraph 5.133 referring to costs will be dealt with in paragraph 7. of this submission.

5. CLARIFICATION OF PROPOSED POWERS OF THE SECRETARY OF STATE

Paragraph 5.134

In light of these challenges, we are proposing to give Secretary of State for Health and Social Care the power to directly introduce, vary or terminate water fluoridation schemes. The Secretary of State for

Health and Social Care already has the existing power to decide on whether proposals for water fluoridation should be approved and responsibility for the administration of schemes.

The proposal to give the Secretary of State for Health and Social Care the "power to directly introduce ……..water fluoridation schemes" needs clarification. Taken literally and in an extreme case, this could imply coercion on a massive scale. Entire populations could be forced to consume a prophylactic (medical treatment), perhaps against their wishes, and without their individual informed consent. This should not be allowed to happen.

Yes, the Secretary of State for Health and Social Care "already has the existing power to decide on whether proposal for water fluoridation schemes should be approved" but only after local authorities have confirmed the need for them and verified, they are operable and efficient. Are these vital steps to be ignored?

Local communities must be the deciding factor in accepting to take a prophylactic in an uncontrolled dose, for the rest of their lives, without their medical condition being known and their health not being monitored at an individual level.

It is perhaps worth noting that there have been no new water fluoridation schemes for over 30 years irrespective of the decision-making process. Perhaps one reason is because there is a distinct lack of public appetite for it. Whenever the public have been asked to give their views on water fluoridation it has been overwhelmingly rejected. [ref 5]

Will this public voice be lost in centralised decision-making and be a repeat of what happened in the proposed scheme for Southampton? The local authorities and local people said NO and were overruled by the Strategic Health Authority, although the proposed scheme never went ahead.

The proposals for water fluoridation in the White Paper, if they are to go ahead, will inevitably require yet more legislative changes. There seems little point in proceeding with this legislation if there is doubt over the legality of water fluoridation.

6. LEGAL ASPECTS OF WATER FLUORIDATION – A JUDICIAL REVIEW

The early water fluoridation schemes were voluntary arrangements between water suppliers and the local authorities responsible for them. Attempts to extend these schemes were met with several legal challenges which led to the introduction and several refinements of the legislation. Water fluoridation in this country was first legislated for in 1985 and is currently permitted by the Water Act 2003 which was last amended in 2013 following a re-organisation of the Health Service. [ref 2]

The current legislative framework is mainly centred on the *process* of introducing, varying or terminating water fluoridation schemes. But what about the *product* (fluoridated water) itself?

There appears to be a legitimate argument [ref 6] that fluoridated water is a medicinal product. Examination of either food or medicinal law (or both) would seem to indicate that water fluoridation does constitute medication as it seeks to improve health (reduce dental caries) by the addition of a chemical, with the result that the manner of doing so is not compliant with the law.

Given the history of legal challenges to the progression (or more appropriately, the lack of it) of water fluoridation it is only a matter of time before the medicinal nature of fluoridated water is

challenged in the courts. Surely it makes more sense to resolve these legal issues, through a Judicial Review, before further legislative changes, rather than fighting expensive legal battles afterwards?

7. COSTS

Paragraph 5.133 extract

In addition, local authorities are responsible for the oversight of revenue and costs associated with new proposals, including feasibility studies and consultations, while having no direct financial benefit from any gains in oral health

Paragraph 5.135 extract

Central government will also become responsible for the associated work, such as the cost of consultations, feasibility studies, and the capital and revenue costs associated with any new and existing schemes.

(i) Availability of actual cost data

Fluoridation of the public water supplies has an important economic aspect – particularly in these times of large national budget deficits and the need to get value for money. Shuffling costs from local authorities to central government merely papers over the cracks. The fundamental problem is that there is no visibility, audit or accountability of what are the true costs (or benefits) of water fluoridation. There are currently around 10 million people in England who have been receiving fluoridated water for over 30 years but there are no officially published data on what these fluoridation schemes are actually costing, or perhaps more importantly, how much dental treatment costs are reducing in the cohort of young children who are the target of water fluoridation.

If, as promoters of fluoridation claim, it is more cost effective than other methods of preventing dental caries, then why have we not got the actual data to substantiate it?

(ii) Obfuscation of costing data presented to decision-makers

There is also a lack of clarity in costing data presented to decision-makers and the following is offered as just one example.

Coming from a business background I have been conditioned in getting best value for money. One technique in use in busines is known as Return on Investment (ROI) and it was therefore pleasing to see Public Health England (PHE) produce a document [ref 7] which is described as a *"decision-support tool to support Local Authorities investment decisions regarding their local commissioning of oral health improvement programmes for pre-school children".* Accompanying this document is a "flier" [ref 8] which shows relative costs and benefits for five oral health improvement programmes (interventions), the most attractive of which appears to be that for water fluoridation - £1 spent gives a benefit of £12.71 after 5 years. So attractive does this seem, it is considered worthwhile looking at it in a bit more detail.

Sadly, the ROI model produced by PHE is fundamentally flawed. In assessing the five interventions it is important to use the same baselines in order to make comparisons meaningful – we need to compare apples with apples rather than four apples with one pear. To arrive at the figure of "£1 spent" the various costs of the interventions are spread (divided) across the population that the

intervention is aimed at (a cohort of young children – *"pre-school children"*). This has been done for four of the interventions but not for water fluoridation where the costs are divided across an entire population. Since the cohort of young children is around 5% of the total population then the costs for water fluoridation should be spread across this element of the population in order to make meaningful comparisons. It is therefore clear that the costs presented for water fluoridation are understated by a factor of x20 (100% ÷ 5%).

In the absence of auditable "actual costs" (or benefits) data and the obfuscation of costing data being presented to decision-makers it will be almost impossible to make any meaningful economic justification for water fluoridation.

(iii) Economic justification for water fluoridation

The accepted orthodoxy amongst many promoters of water fluoridation is that it is the most cost-effective method of delivering fluoride to the population who may gain some benefit from it. In 2008 this premise was tested in Southampton.

As part of the proposal to introduce water fluoridation into Southampton, South Central Strategic Health Authority (SHA) commissioned Abacus International to undertake an evaluation of the economic implications of introducing water fluoridation into Southampton. The report produced by Abacus International [ref 9] remains the most up-to-date economic assessment of a water fluoridation scheme in the UK.

The report revealed a significant shift in the accepted orthodoxy of the economic benefits of water fluoridation. No longer did the benefits of savings in dental treatment outweigh the investment and running costs of introducing a fluoridation scheme. The benefits were marginally less than the costs and were extremely sensitive to the assumed effectiveness of water fluoridation in reducing dental caries. Furthermore, costs continued to escalate meaning it was more expensive to fluoridate the water supply than it was to treat the dental decay. This could be the reason why the proposed scheme was shelved, despite a judicial review of the decision-making process.

No one is suggesting that the way forward is to simply treat the dental decay in young children. There are other preventative measures which have more proven success and are much more targeted and cost effective. The "Child Smile" programme in Scotland (there are no water fluoridation schemes in Scotland) being a particularly good example.

(iv) Government investment in water fluoridation

Central government, presumably persuaded by a powerful dental lobby, have in the past made significant funding available to extend water fluoridation. The last time this was done was in 2008 when, on 5 February 2008 the Department of Health (DoH) issued a press release [ref 10] encouraging the expansion of water fluoridation in the UK and allocated funding of £14 million per year for 3 years. The intention was to expand the national "coverage" of water fluoridation from the current 10% of the population to a target of 40%.

Nearly half (£19.8 million) of the DoH £42 million budget was spent or allocated in the three financial years from February 2008 and there has been no expansion of water fluoridation in the UK during that 3-year period or since. The money spent contributed towards two feasibility studies, but the vast majority (96%) was spent on refurbishing and replacing existing worn-out fluoridation plants – an important consideration often overlooked in economic assessments.

The first feasibility study was for the proposed scheme in Southampton which never went ahead (see paragraph 7. (iii) above). The second feasibility study related to a proposal to fluoridate a

population of 6.8 million people in the North West of England. Included in this feasibility report were cost estimates which were the results of 2½ years of feasibility studies costing nearly £0.5 million.

It was estimated that it would cost £385 million to establish and operate the proposed fluoridation scheme for a 20-year period – which rather dwarfed the £14 million per year for 3 years set aside in 2008 by the Department of Health to extend fluoridation in the UK.

NHS North West abandoned the scheme in 2011 as being unaffordable.[ref 11]

It would appear that the subject of costs of water fluoridation is a sensitive and often overlooked subject amongst promoters of the practice. True "actual" costs are hidden, estimated costing data are misleading, there is no economic justification for water fluoridation and whenever government money has been provided for expanding fluoridation schemes, it has been wasted.

If, as the White Paper proposes, more powers are to be given to the Secretary of State for Health and Social Care for water fluoridation, then surely the first thing he/she should do is get to grips with the thorny issue of costs? All the indications are that water fluoridation is unaffordable.

8. PUBLIC CONSULTATION

Paragraph 5.135 extract

This removes the burden from local authorities and will allow the Department of Health and Social Care to streamline processes and take responsibility for proposing any new fluoridation schemes, which will continue to be subject to public consultation.

There is much that is good about public consultation provided that the public are fully informed and can give their informed consent by ensuring that: -

- the information and evidence provided to the public is complete, accurate and unbiased, and
- all public opinion is taken into account

It is apparent (e.g., information provided for public consumption [ref 12]) in the recent proposals to fluoridate a large area of the North East of England) that satisfying these two important conditions is in doubt.

Firstly, the completeness and accuracy of the evidence-base must be questioned. The York Review [ref 13] and the Cochrane Review [ref 14] are the only scientifically defensible sources of evidence and there could be little grounds for argument if this was the evidence database used in addressing the "health arguments" (safety, benefits, harms, reducing health inequalities). But the Department of Health, through Public Health England, have added selective evidence because it is more in tune with their beliefs. This presents a serious problem for accurate, unbiased evidence on fluoridation being made available to the public.

Secondly, decision-makers have already "nailed their colours to the mast" in promoting fluoridation. There is undoubtedly a significant pro-fluoridation bias which has permeated the organisations involved in promoting public consultation and assessing the results from any such consultations.

Against this background of one-sided handling of the evidence and institutional bias it is hardly surprising that there is widespread public distrust of the information it receives.

Thirdly, in considering the information the public receives, it must be recognised that the publicity high ground is controlled by the advocates of fluoridation. The public health community have long been promoters of fluoridation and by virtue of the prestige of their official and professional bodies and the money and manpower available to them; they largely control the information given to the public. The unfunded opponents of fluoridation are at a disadvantage in trying to convey their arguments against fluoridation.

Fourthly, the media through which the public consultation is conducted should be both comprehensive and inclusive. Not all members of the public have access to, or are familiar with, social media and digital communication. Many rely on older forms of communication such as letters, newspapers, radio and local television.

And finally, will all public opinion be taken into account? Probably not. if what happened in Southampton is anything to go by.

Against this background of democratic shortcomings and patent bias of the decision-makers the true meaning of a public consultation is a far step from reality. In summary, any public consultation should ensure that: -

(i) Equitable attention is given to all aspects of water fluoridation viz. legal, ethical, environmental, cost and scientific evidence.

(ii) Proceedings are transparent with full public access.

(iii) Bias is avoided and balanced evidence is presented.

(iv) The quality of the evidence being provided should be independently assessed and clearly stated.

(v) Due account will need to be taken of the public support for the proposals.

(vi) Results from the public consultation are independently assessed.

9. EFFICACY OF THE EVIDENCE ON WATER FLUORIDATION

Paragraphs 5.120 and 5.132

5.120 Fluoride is a naturally occurring substance that has been shown to improve oral health. We will work to streamline the process for initiating proposals for new schemes for fluoridation of water in England by moving the responsibilities for doing so from local authorities to central government.

5.132 Water Fluoridation is clinically proven to improve oral health and reduce oral health inequalities. It has a protective effect which reduces the impact of a high sugar diet or poor oral hygiene. Around 10% of the population of England currently receive fluoridated water. In the most deprived areas fluoridation of water has been shown to reduce tooth decay in 5-year olds by a third.

These two paragraphs contain information on water fluoridation which is typical of that produced by promoters of water fluoridation – it contains biased, inaccurate and misleading information.

"Fluoride is a naturally occurring substance that has been shown to improve oral health". The fluoride added to the public water supply system is neither "naturally occurring" (calcium fluoride) nor of "pharmaceutical grade" (e.g., sodium fluoride in toothpaste) – it is hexafluorosilicic acid, a by-product of the phosphate fertiliser industry which contains traces of lead and arsenic. "Improvements in oral health" are generally associated with fluoride in toothpaste and improved oral hygiene – not water fluoridation schemes.

"*Water Fluoridation is clinically proven to improve oral health and reduce oral health inequalities"* is a questionable statement. There is no credible scientific evidence that water fluoridation reduces dental inequalities in disadvantaged children.

There is a vast amount of scientific literature on water fluoridation and few people can study it all. Reviews and summaries that interpret the literature are therefore the predominant source of information for people who want to learn more about the scientific evidence.

In 1999 the Department of Health commissioned the Centre for Reviews and Dissemination at the University of York to systematically review the evidence of the effects of water fluoridation on dental health and to look for evidence of harm. The York Review (as it became known) was exceptional in this field in that it was conducted by an independent group (to avoid bias) and to the highest international standards. The York Review [ref 13] was published in 2000 and its findings are summarised below: -

- Whilst there is evidence that water fluoridation is effective at reducing caries, the quality of the studies was generally moderate and the size of the estimated benefit, only of the order of 15%, is far from "massive".

- The review estimated the prevalence of dental fluorosis (mottling of the teeth) and fluorosis of aesthetic concern at around 48% and 12.5% respectively.

- There was little evidence to show that water fluoridation has reduced social inequalities in dental health.

- The review could come to no conclusion as to the cost-effectiveness of water fluoridation or whether there are different effects between natural or artificial fluoridation.

- The review did not show water fluoridation to be safe. The quality of the research was too poor to establish with confidence whether or not there are potentially important adverse effects in addition to the high levels of fluorosis. The report recommended that more research was needed.

- Probably because of the rigour with which this review was conducted, these findings are more cautious and less conclusive than in most previous reviews.

- The review team was surprised that in spite of the large number of studies carried out over several decades there is a dearth of reliable evidence with which to inform policy. Until high quality studies are undertaken providing more definite evidence, there will continue to be legitimate scientific controversy over the likely effects and costs of fluoridation.

It is quite clear from the findings of the York Review that the stated benefits of water fluoridation were significantly less than previously claimed and there is considerable uncertainty surrounding its

efficacy and safety. Furthermore, none of the recommended “high quality studies” have been carried out in the subsequent 20 years.

15 years after the ‘York’ systematic scientific review by the NHS Centre for Reviews and Dissemination cast serious doubt on the evidence surrounding water fluoridation, a follow-up review by the Cochrane Collaboration [ref 14] published in June, 2015 came to similar conclusions. These two systematic reviews are generally considered to be the only scientifically defensible assessment of the evidence so far in the UK.

Against this reputable background of uncertainty surrounding the safety and efficacy of water fluoridation it makes assertions given by promoters of fluoridation unconvincing. If water fluoridation is so safe and effective then why hasn’t the MHRA (Medicines and Healthcare products Regulation Authority) approved it in the same way as the COVID 19 vaccinations?

What is more worrying is that there is emerging scientific evidence that fluoride exposure, at levels typical of water fluoridation schemes, is a developmental neurotoxin.

It is quite likely that scientific evidence will emerge after systematic scientific reviews. It matters not whether this evidence is presented by proponents or opponents of water fluoridation. What does matter is that any such ‘new’ evidence is subjected to the same rigour and be of the same quality as would be accepted by a systematic scientific review. This is currently not the case, where the selective use of evidence to make a point is commonplace.

Throughout the current COVID 19 pandemic the public have been constantly reminded that the government will “be led by the science”. The problem with water fluoridation is that there is no (credible) science to follow.

10. FLUORIDATION IS A “SOLUTION” NOT A “PROBLEM”

Paragraph 5.95 extract

The remaining proposals are designed to support social care, public health and safety and quality……..
Public Health
6. Public Health power of direction
7. Obesity
8. Fluoridation

A noticeable observation is under the heading of “Public Health” where there appears to be conflation of a “disease” (or “problem”) – OBESITY, with that of a “solution” – FLUORIDATION. The “problem” which fluoridation is supposed to solve is dental caries which is universally in decline, is not a population-wide problem, is neither contagious nor life threatening and is highly unlikely to overwhelm the NHS. Unlike COVID 19.

11. GENERAL COMMENT

Fluoridation as a "treatment" (prophylactic) can be compared with the vaccination for COVID 19. The significant difference is that the vaccination can only be given to individuals with their INFORMED CONSENT. Fluoridation is given indiscriminately to populations WITHOUT informed consent when most of whom don't need it and many don't want it.

It is difficult to escape the conclusion that, as a public health measure to treat the declining public health problem of dental caries, water fluoridation: -

- is unnecessary
- its legality is questionable
- sets a precedent of using the public water supply system as a vehicle for delivering medication to individuals
- breaches the fundamental rights of an individual to consent to medical treatment
- is surrounded by uncertainty over the benefits
- exposes populations to inadequately safeguarded harmful risks
- can be potentially damaging to the environment
- is an inefficient and costly means of delivering a treatment to patients
- and would be introduced by a decision-making process which is patently biased and has democratic shortcomings

When water fluoridation was introduced over 60 years ago the incidence of dental caries was much more widespread than it is today. At the time, the main source of liquid refreshment for children was drinking water – not "fizzy" drinks and bottled water like today. But time has moved on.

Over the years we have seen significant improvements in diet, better dental hygiene, better access to dentistry, better dental health education and encouragement to take responsibility for one's own health and well-being. The result is that dental caries is universally in decline and is no longer a population-wide problem.

Unfortunately, proponents of water fluoridation seem unable to move on and are stuck in the past trying to impose the same solution to a problem that has changed. The problem is no longer population-wide; with the target population now being socially disadvantaged young children. Using a "scatter gun" approach in the hope that some of the drinking water will be consumed by this small cohort of the population is outdated. Surely a more targeted approach, which also tackles the root cause of dental caries – sugary food and drinks – is more in keeping with modern public health interventions?

Water fluoridation is a controversial, outdated, expensive and archaic practice. The government's decision to include it in modernising the health service defies logic.

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