

Yorkshire Citizens Caring for Yorkshire People

The Fluoridation Report (Part 2)

Submitted to Public Health England & Wakefield County Council
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A Review of the Safety Guidelines of Fluoridation / Non-Legality within the EU

Forward

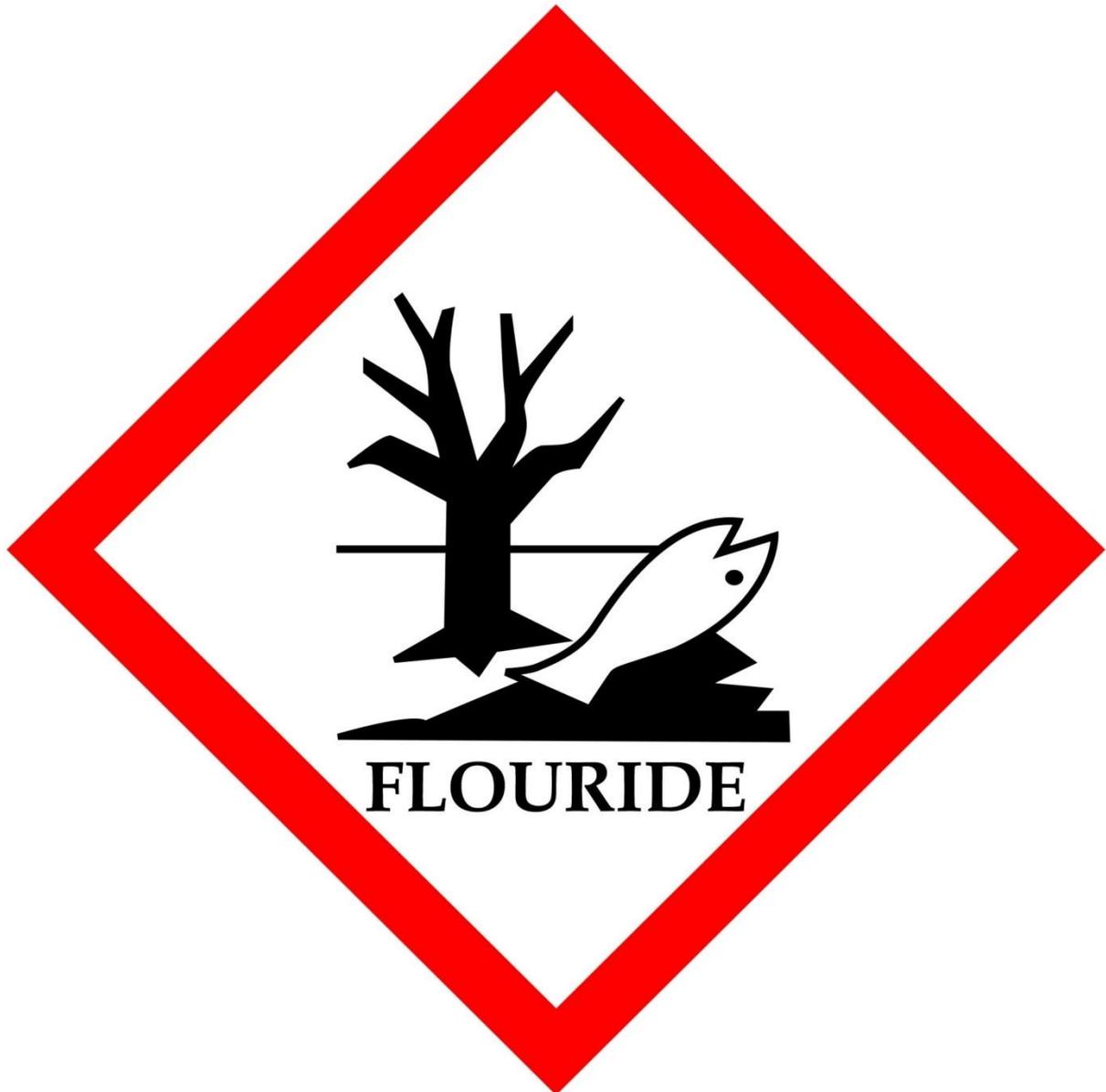
This report aims to set out the arguments against fluoridation with specific reference to safety guidelines outlined by the National Health Service (NHS) and its regulatory bodies. Emphasis within this study will focus upon the ‘quality’ of evidence (or lack thereof) supplied by Public Health England appertaining to the benefits and efficacy of fluoride. In addition, legal and ethical considerations will be presented to the committee to establish the illegality of fluoridation schemes throughout the EU. This report will therefore clearly outline the discussion against fluoridation within a legal and medical framework. It is intended to compliment the information that appeared in YPAF’s (Yorkshire People Against Fluoride) 1st report dated on the 25th of August 2015 and gives clear guidance regarding the law and the protection of the individual from ‘*experimental treatments*’.

This paper is divided into 10 main parts and includes a basic index, so subject matter can be easily cross-referenced. The main sections are as follows:

- (1) Introduction (What the Experts Say.) [PAGES: 3-37]
- (2) American National Research Council: Dental Research [PAGES: 37-47]
- (3) Comparative Global Studies that Question the Therapeutic Effects of Fluoride – Attorney Michael Connett’s ‘Tooth Decay Rates in Fluoridated Versus Non-Fluoridated Communities’ 2012 [PAGES: 47-64]
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WATER FLUORIDATION IS A CRIME!



**WE MUST ACT NOW AND IMMEDIATELY – TO PRESERVE THE
WORLD'S FRESH WATER SUPPLY FROM THE ILLEGAL
DUMPING OF INDUSTRIAL FLUORIDE**

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(Section 1): Introduction – What the Experts Say.

In this introduction, the author of this report will develop legal arguments structured upon UK and European Law prioritising the review of fluoride. Greater depth in terms of analysis of the articles of law will be given during the course of this document (Sections 4 & 6). Fluoridation poses a real hazard and is detrimental to human health at the prescribed levels advocated by Public Health England. The recent proposition that fluoride is ‘safe’ will be deconstructed and shown to be erroneous. In the information pack provided, we will enumerate the various reasons why the research material adopted by healthcare professionals is scientifically weak. A good example of this misconception regarding fluoride as a ‘safe and effective treatment’ is summarised in the Guardian Newspaper in a recent article published on the 26th of December 2015, it stated:

Adding Fluoride to Water May Have No Benefit

‘The UK remains among a small minority of countries that permit fluoridation. In the US, the maximum concentration was lowered in April, for the first time in 50 years, to 0.7 mg fluoride per litre of water (UK schemes aim to deliver 1mg), amid concerns people are getting too much... [Paul Connett a senior chemist and academic says] no credible margin of safety has [ever] been established’.

UK Guardian, Adding Fluoride to Water May Have No Benefit,
26 December 2015 [Abridged Article]

Patently clear, the change of law within the United States indicates that the authorities believe fluoride levels above 0.7 mg per litre of water poses a significant risk to the population. A massive revelation, this recent position of decreasing fluoride intake throughout the United States questions the whole legal basis of the UK fluoridation schemes of 1mg of fluoride per litre of water. In the United Kingdom, the unacceptable figure of 1mg of fluoride is approximately one third higher than in the States. Dangerous, the best evidence to date indicates that the current measurement of fluoride in the UK is deplorable and is harming local populations throughout the British Isles.

To assist with this validation, YPAF will quote the American National Research Council’s groundbreaking and systematic report, discussing the toxicity levels of fluoride completed in 2006. According to the National Research Council, just 0.7mg of fluoride can decrease thyroid function in healthy adults and is related to a whole host of adverse medical conditions. Indispensable, this research from the American Academies will be examined during the course of this document and is the basis for the legal argument against fluoride.

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Perhaps even more perturbing, the recent admission and subsequent reduction in the measurements of fluoride in drinking water in the US gives substance to the claim that water fluoridation has resulted in the injury of millions of people throughout the world. Problematic, the overall decrease within fluoride amounts throughout the American water supply proves unconditionally that the British level of 1 mg of fluoride per litre of water can no longer be considered to be 'safe'.

Compelling, the evidence from the States indicates that Public Health England's recommendation of 1mg of fluoride is obsolete and in context to British and European law illegal. Furthermore the inconsolable fact that the amendment within the American law has taken nearly 50 years to occur questions the whole scientific basis of fluoride and its legitimacy. Assessment of the evidence suggests there have been many fraudulent claims relating to the endorsement of fluoride that over the years have benefited corporate interests over human health.

The judicial position argued within this essay concerning the introduction of fluoride and its 'disputed contention' is made purely for theoretical reasons, primarily to initiate legal arguments during the course of this document. The growing consensus amongst experts and specialists is that fluoride ingested constitutes significant risk. Consistently the threat of potential injury has been underplayed within published pharmacological literature in particular studies funded by the fluoride industry. These real concerns have been increasingly ignored by the NHS and the government. In each case, both of these public bodies continue to maintain a prejudicial summary centred upon the presumption that fluoride is 'safe'.

In essence the growing concern and medical disputation that questions the prevailing orthodoxy of fluoride and its potential for harm is undermined or silenced. Fluoride unreservedly is a public threat that subverts common wellbeing and has overriding concerns for national security. More worrying, there is a trend within medicine that suggests there is a real agenda to rewrite science and is a controversy we will touch upon later in this report.

To restate the gap between the proponents of both sides of the fluoride 'debate' is increasingly widening. Behind the rhetoric and obfuscation, there is a clear cautionary 'signal' that is beginning to emerge primarily through the publication of new and revised data. Progressively evident, the 'mixed noise' and visible contradictions, inherent within the science of fluoride, warrants immediate and careful investigation from both legal and medical practitioners. The tendentious idea that a 'polemic discourse' on fluoride exists is apparent within contemporary medical literature and is an exaggeration cultivated by the pro-fluoride lobby.

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Nevertheless such asseverations, although shown to be marginal, provide a very useful concept legally for the argument against fluoride – and will be explored forthwith in this synopsis.

To begin it seems only appropriate to highlight the ‘controversy’ that is current within the ‘debate’ concerning fluoridation and its use. During the course of this document we will demonstrate the general lack of consensus. First however we will study what the Royal College of Physicians have to say on the subject and compare it with research submitted by the American Research Council and other senior medical officials. Contradictory the declarations alluded to by the Royal College are at odds, with the documented levels of toxicity attributed scientifically to fluoride.

The stark differences of opinion can thus be summed up neatly in the following statements made by the august institution cited from the Royal College of Physicians and their appraisal of water fluoridation in distinct contrast to its refutation by America’s leading scientific agency the National Research Council. For the sake of impartiality we will look at both conclusions:

(1)Royal College of Physicians’ CONCLUSIONS

‘There is now an enormous body of information bearing on the subject of fluoride and health which amply justifies the following conclusions:’

- 1. Fluoride in water added or naturally present at a level of approximately 1ppm over the years of tooth formation reduces dental decay throughout life.*
- 2. There is no evidence that the consumption of water containing approximately 1ppm of fluoride in a temperate climate is associated with any harmful effects, irrespective of the hardness of the water.*
- 3. In comparison with fluoridation, systemic fluoride supplements such as tablets, drops and fluoridated salt have not been shown to be as effective on a community basis.*
- 4. There is no evidence that fluoridation has any harmful effects’.*

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p6

I will come back to the Royal College’s problematic statement and examine it in more detail later in this critique, but for the purposes of a general overview, it is first necessary to highlight the exact opposite argument. Adamantly against chemical interventions, the counter position is adopted by the scientist Dr. Robert J. Carton PhD and his editorial review of the National Research Council’s paper on fluoridation. Influential, the findings from the National Academy of Science and their related regulatory bodies is an extremely important survey.

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An esteemed toxicologist Dr. Robert J. Carton PhD has worked for over 30 years in the US federal government writing regulations and managing risk assessments of toxic compounds. A senior scientist, he wrote the first regulations for controlling asbestos in the United States for the Environmental Protection Agency (1972-1992). In his review of the National Research Council's Report 'Fluoride in Drinking Water – A Scientific Review of the Environmental Protection Agency Standards' published in 2006, he summarised the following concerns:

(2) National Research Council Appraisal of Evidence CONCLUSIONS

'The National Research Council review includes extensive information on other possible health effects of fluoride, such as endocrine effects and effects on the brain. On the basis of this information and the proper interpretation of the Safe Drinking Water Act, the following are all adverse health effects: moderate dental fluorosis, stage I skeletal fluorosis (arthritis with joint pain and stiffness), decreased thyroid function, and detrimental effects on the brain, especially in conjunction with aluminium. The amount of fluoride necessary to cause these effects to susceptible members of the population is at or below the dose received from current levels of fluoride recommended for water fluoridation. The recommended Maximum Contaminant Level Goal (MCLG) for fluoride in drinking water should be zero.'

Robert J. Carton PhD, Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, p163

The reference in the National Research Council's own review of its earlier report 'Fluoride in Drinking Water' lists thyroid problems as an outcome of fluoride poisoning in water supplies. A leading cross-examination into fluoridation and its effects, the data from the American Research Council predated Professor Peckham's UK study (2012-2013) by seven years and anticipated all of his conclusions! On this point the comprehensive investigation completed in the States is in total agreement with the largest comparative study of fluoridated and non-fluoridated regions in the UK. Lead author Professor Stephen Peckham, Centre for Health Service Studies, said:

'I think it is concerning for people living in those areas'... The difference between the West Midlands, which fluoridates, and Manchester, which doesn't was particularly striking. There were nearly double the number of cases in the West Midlands... Underactive thyroid is a particularly nasty thing to have and it can lead to other long term health problems. I do think councils need to think again about putting fluoride in the water. There are far safer ways to improve dental health'

Professor Stephen Peckham, Centre for Health Service Studies

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For further information on Professor Stephen Peckham's work, please consult YPAF's first Fluoridation Report (Argument Against Fluoridation of Wakefield Water Supplies Based Upon the Best Evidence of Current Medical Studies). The point of matter is that the National Research Council's paper is an excellent systematic review and contains statistical information that is critically missing from the enquiry by the Royal College of Physicians and their evaluation of fluoride within drinking water.

A critical document, we will come back to the significance of the National Research Council's Report, and take time to deconstruct the conclusions. First however it is imperative to look at a short selection of executive medical figures and their contrary opinions regarding fluoride and its (mis)use for public health. The purpose in this introduction is to highlight the 'dichotomy' found within the scientific community, in particular the high calibre of research attributed to senior figures and their rebuttal of fluoride. This then is what the medical experts have to say on fluoride:

What the Experts Say:

(1) Dr. Arvid Carlsson, Co-Winner of the Nobel Prize for Medicine (2000)

I would advise against fluoridation... Side-effects cannot be excluded ... In Sweden, the emphasis nowadays is to keep the environment as clean as possible with regard to pharmacologically active [ingredients] and, thus, potentially toxic substances'.

Ben Shipley, A Rational Approach to Controversial Public Issues, Article p1

(2) Dr. Flanagan, Assistant Director of Environmental Health, American Medical Association

The American Medical Association is NOT prepared to state that no harm will be done to any person by water fluoridation. The American Medical Association has not carried out any research work, either long-term or short-term, regarding the possibility of any side effects'.

Dr. Flanagan, Dated May 13th 1965, American Medical Association, Department of Environmental Health, Scanned Letter to Mr Fulton, New South Wales, Australia

(3) Dr. Charles Gordon Heyd, Past President of the American Medical Association

I am appalled at the prospect of using water as a vehicle for drugs. Fluoride is a corrosive poison that will produce serious effects on a long range basis. Any attempt to use water this way is deplorable'.

Michael Barbee, Politically Incorrect Nutrition, Finding Reality in the Mire of the Food Industry, Vital Health Publishing, 2004, p44

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(4) Dr. William Marcus, Senior Toxicologist at the Environmental Protection Agency

'The E.P.A. [Environmental Protection Agency] should act immediately to protect the public, not just on the cancer data, but on the evidence of bone fractures, arthritis, mutagenicity and other effects.'

Allan Freeze, *The Fluoride Wars, How a Modest Public Health Measure became America's Longest Running Political Melodrama*, JH Lehr & J Wiley Son Inc., 2009, p268

(5) Dr. Professor Albert Schatz, Microbiology, Co-Discover of the Antibiotic Streptomycin, The Cure for Tuberculosis and Related Microbial Infections

'Indeed fluoridation is the greatest and potentially the most dangerous medical hoax not only in the present century but of all time. In other words it is the greatest fraud that has ever been perpetrated and it has been perpetrated on more people than any other fraud.'

Philip R. N. Sutton, D. D. sc (Melb) L.D.S, F.R.A.C.D.S,
The Greatest Fraud, Fluoridation, (Preface)

In the preceding set of examples, the cautious perspective on fluoride is remarkably constant and is taken from leading medical specialists. Many of these top figures are in senior positions and highlight the current legal dilemma that the local government in Yorkshire are now presented with a position that in light of the new evidence is unacceptable! To follow blindly the medical advice of the NHS and their public recommendations to introduce fluoride into the drinking water supplies of the local population is objectionable. The Public Health England's Report in 2014 reads more like a public relations campaign that is designed to dispel fear and restore the public's confidence, to quote:

Conclusion:

'The report provides further reassurance that water fluoridation is a safe and effective public health measure. PHE [Public Health England] continues to keep the evidence base under review and will use this report as part of an ongoing dialogue with local authorities before publishing a further report within the next four years.'

Water Fluoridation, Health Monitoring Report for England, Public Health England, 2014, p6

On the surface the 'Water Fluoridation Health Monitoring Report for England 2014 seems very plausible. The main problem with the Public Health England review is that it contradicts important systematic studies conducted both in Australia and the United States. A primary and underlying drawback with the research commissioned in the UK is that the Health Monitoring Report is concerned only with reviewing data from short term studies into populations exposed to long term risks! The prolongation of health risks are to emphasize associated with lifetime consumption of fluoride.

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To use a similar analogy conducting a four year study into the effects of smoking on 18 years-olds, and concluding that there is no significant 'evidence' between the regular use of cigarettes and cancer is unscientific. Problematic, the results of smoking when reviewed in context to the short duration of the trial would be 'true' and yet the medical conclusions of the study would be totally inadequate at addressing the management of risk equated with the accumulative effects of smoking.

This then leads to questions surrounding the ethicality of randomised trials that are non-consensual. The legal argument against human experimentation without legal consent is of course a resounding NO and is set out in the Helsinki Declaration... in short there is no basis for such a type of study, and in conclusion the fluoridation schemes running in the UK are illegal...

Public Health England cannot force, compel, or subject medical interventions or treatments without prior consent from healthy individuals. The Public Health review is disingenuous and effectively contradicts numerous studies completed into fluoridation. A travesty, the report is uneven in its approach and propagandist, to quote a small excerpt:

Bladder Cancer

'There was evidence that the rate of bladder cancer was lower in fluoridated areas than non-fluoridated areas... [the] theoretical plausibility arises because fluoride is excreted in the urine and the bladder lining is therefore exposed to relatively high concentrations.'

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, pp 5&10

The conclusions of the Health Monitoring Report 2014 is that the imbibition of fluoride is 'safe' and that 'evidence' in the public sphere, derived from Public Health England, indicates quite falsely that the chemical fluoride is an inhibitor of vesicular cancers. Deceptive, the proposition begins by stating in the introduction that bladder cancer is lower in fluoridated regions (page 4), the report takes another 30 pages to list the primary reasons that are found for these irregular results, to quote:

6.2.5 Bladder Cancer

'This report demonstrated a lower incidence of bladder cancer in fluoridated compared to non-fluoridated areas, but again the effect size was small. As previously described in section 6.2.2. possible explanations include confounding, bias and reverse causation. The risk of bladder cancer was higher in males, and increases dramatically with age; adjusting for these variables at an ecological

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level may have resulted in residual confounding in the relationship between fluoridation and bladder cancer. Smoking is a powerful independent risk factor for bladder cancer, and was not adjusted for in this report.

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, p34

To say that there are some major fundamental problems with the methodological review of Public Health England's Report is an understatement! Let's begin then by listing some of the main difficulties with the report:

- (1) First, and significantly, by not including smoking into the figures as a variable factor into bladder cancer is not just a crucial oversight but a gross example of scientific misconduct. To elaborate cigarette inhalation is perhaps one of the biggest reasons for death in the United Kingdom. A colossal 'mistake' the Fluoridation Report for England, and its statistical avoidance of issues surrounding 'smoking' as a causative factor of tumour growth is a flawed rationale and renders the conclusions invalid.
- (2) Substantial, there are further problems with the review and the avoidance of 'smoking' as an indicator of cancer in particular its equation with social mobility relative to the rate of disease. Analysing figures within the smoking and non-smoking population within fluoridated and non-fluoridated regions is an important variable in which significant differentials in cancer rates could easily go undetected in a poorly designed study to recap the Public Health England's own conclusions:

6.2.5 Bladder Cancer

'The risk of bladder cancer was higher in males, and increases dramatically with age; adjusting for these variables at an ecological level may have resulted in residual confounding in the relationship between fluoridation and bladder cancer.'

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, p34

Let's be totally clear, by not including smoking figures in the study evidence, the report is meaningless and should have been written in the definitive tense, to illustrate the point, I have redrafted out the relevant conclusions that can be derived from Public Health England's low quality report and have formalised them in writing below:

'The risk of bladder cancer was higher in males, and increases dramatically with age; not adjusting for smoking at a local level rendered the results for the relationship between fluoridation and bladder cancer as statistically

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meaningless. Redundant, no conclusions on bladder cancer and fluoridation could be drawn from the study’.

Simon C. Haigh (Committee Chair of YPAF), Reworded Version of Water Fluoridation Health Monitoring Report for England 2014, Public Health England, p34 [Example]

As stated in the summary, the ecological rate addresses the local ‘risk’ of cancer that is acknowledged to have a possible effect upon the results. These could include a number of very significant factors such as the age of the population, gender, or even access to better health care, thus the increased diagnosis of cancer and their regional differences. There are no firm conclusions that we can take away from the Public Health England study. This is a report that is supposed to evaluate the risks of fluoride? Instead the committee assigned with this job sidesteps the crucial issue and deliberately avoids answering the question objectively. If the task force cannot guarantee that an escalation of fluoride in water is not attributable to an increase risk within cancer, then surely the question remains how can...

‘The report provides further reassurance that water fluoridation is a safe and effective public health measure’.

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, p6

In short, such a weak submission by Public Health England cannot be justified intellectually and maintained officially within the academic arena.

Unprofessional, the hyped claims concerning bladder cancer rates cannot be vindicated or analytically confirmed and is a summary that is acknowledged albeit reluctantly in section 6.3 Limitations, in the words of the Health Monitoring Report:

6.3 Limitations

‘The ecological level associations in this report may not reflect the true relationship between fluoridation and health at an individual level and thereby represent ecological [localised] fallacy: for example, the lower rate of bladder cancer in fluoridated areas cannot be taken to mean a lower individual risk of bladder cancer with increased personal fluoride consumption’.

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, p36

Put simply, Public Health England are unsure if fluoridation is safe for individual consumption and if the rates of bladder cancer are dependent upon a localised ‘fallacy’? Placatory, the report although ostensibly impartial rejects several important competing studies that question’s the safety of fluoride and is a disconcerting pattern that occurs all too frequently in the English summary of

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evidence. To generalise, the committee review of medical studies is presented as valid and all other contrary opinions are explained as a ‘statistical variant’. Reductionist in method on the issue of ‘All Cause Mortality’, Public Health England had this to say:

6.2.3 All-cause Mortality

‘This report showed some evidence of lower all-cause mortality in fluoridated versus non-fluoridated areas; the overall effect size was very small, and this is likely to have occurred as a result of chance, or possibly confounding as previously discussed in section 6.2.2. The York Review appraised five studies that looked at the relationship between all cause mortality and water fluoride exposure. Three of the studies reported more deaths in areas with water fluoridation; one found fewer deaths in fluoridated areas and the other reported no association. None of these studies reported measures of statistical significance of these associations. However, for two of the studies that reported more deaths the point estimate [adjusted rate ratio] was 1.01, which the report authors concluded was unlikely to have reflected a statistically significant effect.’

Water Fluoridation Health Monitoring Report for England 2014,
Public Health England, p 34

Totally apathetic Public Health England’s cavalier interpretation of the disturbing data is passed over almost without comment. To sum up, half of the studies reported in the York Report (the largest comprehensive study completed in the UK to date) found a slight increase in the rate of mortality in fluoridated regions – perhaps slightly above the 1% mark. Although by any means not a large proportion of the local inhabitants, if we review the figures in context to the population of Great Britain which is approximately 65 million, then an increase in 1% within the mortality rate would reduce our population by 650,000 people and is a genocidal figure. Completely indifferent and oblivious to any risk, the conclusions provided by Public Health England that the figures are ‘*unlikely to have reflected a statistically significant effect*’ is not good enough in terms of burden of proof! What I would expect to see from the conclusion of the ‘Water Fluoridation Health Monitoring Report’ is an explicit statement, reaffirming the safety of fluoride, for example:

‘The authors of the Public Health England Report can categorically state on their mother’s life – cross their hearts and hope to die’ that mortality rates are the same or lower within fluoridated regions.’

Simon C. Haigh (Committee Chair of YPAF), ‘Proposed’ Draft of Water Fluoridation Health Monitoring Report for England 2014, Public Health England [Example]

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Anything less is shameful, and is a provocation that calls for immediate action! Have not Public Health England worked out the full implications of what they are saying? Similar tendencies to avoid uncomfortable truths relative to fluoride and its higher mortality rates are also found within the earlier York Review dated 2000.

In this survey, for example, the authors describe a significant association with fluoride for mortality rates, evident within the research of A. Smith (An Examination of the Relationship between Fluoridation of Water and Cancer Mortality in 20 Large US Cities. *NZ Med J* 1980; 91:413-16). Following these pessimistic conclusions, the results of Smith are summarily dismissed and the problematic results are rounded down in the words of the York report '*corrected*'. Without sounding too cynical, I am guessing that Smith did not agree with the summaries of the NHS Review and Dissemination Committee or he himself would have gone to the trouble to have '*corrected*' his own figures.

Perhaps even more surprisingly, the reviewers gave Smith's scientific study on '*all-cause mortality*' the highest validity rating within the evidence submitted to the University of York and then go on to ignore his conclusions. In terms of public safety if there is any doubt about the final results, then the standardised policy as a matter of caution should always be to round the figures up so as to prevent unavoidable death. Indeed this is not only as a matter of precaution but is also a legal requirement so as to evade 'potential harm'.

The lack of guidance and proper response issued from Public Health England is totally unacceptable! And it appears that the '*uncertainty factor*' is a permissible risk? To emphasize if the committee members of Public Health England and earlier the commissioned report by York University is wrong particularly in their 'adjustments' of figures even slightly by a fraction of 1%, then the ramifications could lead to the largest health crisis ever seen in the UK. Let's then be clear, we are talking about the avoidable deaths of thousands of UK citizens, on the presupposition that fluoride as an active ingredient can prevent tooth decay. The stakes then are very high, and yet the 'positive benefits' (if we accept that there are dental advantages – and this point as we shall see is hotly debated) are extremely negligible. Moreover the 'virtues' of fluoridation are orientated towards unacceptable risk.

Public Health England may in their literature choose to ignore small statistical variances that on the face of probability are random variations, but these percentages are shown to be an intolerable risk. The practice of gambling with public safety is not a game of poker or a cognitive exercise in applied mathematics. The figures in question deal with real people.

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Increasingly the research from America and Australia suggests that scientists reviewing the figures for fluoride and 'all-cause mortality' might actually be looking for tiny statistical discrepancies – these differences although minimal reflect a latitudinal disparity equated with increased risk.

On a larger scale, these small 'blips' on 'all-cause mortality' found within the field of data, though not '*statistically significant*', are nevertheless alarming and indicate a real risk. In addition the fact that many of these small variables keep on reappearing in numerous studies suggest that although the results may not be foolproof a contingency should be adopted in which the results are taken at 'face value'. In terms of measurable levels of mortality, any 'positive result' is a positive result and needs to be considered as 'serious'. Non-fluoridation should therefore be adopted as a matter of urgent policy.

If we don't exercise prudence then what is the point of conducting statistical analysis of populations with which the scientists cannot accurately measure a variance of 5% never mind 1%! The figure of 5% in reality translates into 1 in 20 people. In a study of a million people, if 1% of people get cancer then that is 10,000 sick individuals. All of these people will need immediate medical resources. Potentially catastrophic these oversights in policy convert into real money, assets that could have otherwise been spent on the public sector. Rather foolishly according to Public Health England, the 1% risk is dismissed as falling within the scope of 'chance' and is relegated to a 'margin of error'. Although obviously true within quantum mathematics, the complete lack of exactitude however is unacceptable when dealing with large population groups. Objectively the lack of precision in order to calculate the negative effects of fluoride demographically becomes a real and exponential problem.

The conclusions made by Health Monitoring Report for England 2014 is not factually correct, the determination of 'safe' to 'relatively safe' is a 'big leap of faith' that in real terms can translate into thousands of people getting sick or even worst dying. To call attention to the associated risks concerning fluoridation is an imperative particularly as the 'relative risks' to date have not been properly ascertained within the UK studies. This position however is not the case within the United States. Conversely the rates of 'probability' have been defined by the National Research Council's Report that lists the figures of acute fluoride poisoning from levels as little as 1ppm (one part per million) – See Section 4: 'A Database of Health Issues Documented from the National Research Council's Risk Assessment of Fluoride'.

To give prominence, the complex factors relative to fluoride toxicity when examined carefully more than indicate that the tentative signals within the data

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concerning cancer and mortality rates are at the very least suggestive of a 'plausible risk'. In the largest systematic review done in the UK completed by the University of York in 2000, the analysts highlighted the contradiction of fluoridation within the framework of existing knowledge, in its summary of conclusions the report emphasized...

Conclusions

'This review presents a summary of the best available and most reliable evidence on the safety and efficacy of water fluoridation. Given the level of interest surrounding the issue of public water fluoridation, it is surprising to find that little high quality research has been undertaken. As such, this review should provide both researchers and commissioners of research with an overview of the methodological limitations of previous research conducted in this area... The research evidence is of insufficient quality to allow confident statements about other potential harms or whether there is an impact on social inequalities. This evidence on benefits and harms needs to be considered along with the ethical, environmental, ecological, costs and legal issues that surround any decisions about water fluoridation. All of these issues fell outside the scope of this review. Any future research into the safety and efficacy of water fluoridation should be carried out with appropriate methodology to improve the quality of the existing evidence base.'

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation, The University of York, Report 18, pxiv

Transparent, the York Report the most detailed methodological study conducted within the UK could not decide if fluoridation was 'safe', based upon the lack of 'high quality research'. Neither could the review decide if fluoridation impacted social inequalities within rates of tooth decay. In light of these statements it seems the primary justification that fluoridation will adjust the rates of tooth decay in poor communities is a weak argument.

In fact going back to the York Report the evidence on fluoride is interpreted to be so 'bad' that the members on the committee could not complete their first objective 'A Systematic Review of Water Fluoridation'. This inability to conduct the study properly is as of a direct result of the poor evidence submitted to the committee. In general the information lacked sufficiency and therefore was totally inadequate. Given incomplete and unsatisfactory data, the board members of the report had little choice but to settle for the only alternative option available to complete their task. Deficient, the York Review acknowledged their limitation with the lack of correct scientific data, and is summarised in the words of the commission:

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‘As such, this review should provide both researchers and commissioners of research with an overview of the methodological limitations of previous research conducted in this area’.

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation,
The University of York, Report 18, pxiv

Truthfully, the board committee could not offer an effective evaluation of fluoride with the level of data provided, and could only supply a limited deconstruction of the inherent weaknesses found within the analysis submitted. In essence, an appraisal of studies presented to the commission and a review of the evidence base in context to quality control. In the introduction of the York Review, the paper acknowledges that the scientific avowal of water fluoridation provides *‘evidence on benefits and harms’* and is a problematic disclosure that is viewed as incompatible to the legal implementation of such schemes. The main areas of interest regarding the ‘benefits’ and ‘harms’ of fluoride can be summarised simply as ‘the 5Es’ and is given in the following abstracts.

Important Considerations of Fluoridation

A Deconstruction of the York Summaries:

- (1) Ethical (Medical)*
- (2) Environmental*
- (3) Ecological*
- (4) Economic*
- (5) Enactment (Legal)*

(1) Ethical

The ethical issues regard the ‘mass medication’ technically if we use the language from the fluoride industry, the ‘drugging of the population’ (See Appendix 2: Fluoride Advertisements – the Disinformation Campaign). On the surface, the mass medication of the public might seem like a good idea, but when experts factor in ‘suboptimal’ populations that can be injured through fluoridation, it is both morally unacceptable and of course wrong, as the action constitutes criminal damage (Please Refer to Section 6: Legal Arguments – the Law and Why Fluoride is Illegal under UK and European Legislation).

(2) Environmental

Fluoride is an anti-microbial agent that interferes both with the food-chain and higher organisms. Anyone interested in the environmental arguments concerning fluoridation should refer to the Brisbane Study that highlighted significant environmental concerns, appertaining to the fluoridation of water and the natural habitat.

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(3) Ecological

Fluoridation or contamination of the water supply is difficult to reverse and impacts future generations. In light of these observations, it is imperative that we act now to preserve the world's fresh water supply from the illegal dumping of industrial waste. The agenda is real – there is in place a systematic plan to fluoridate all of the planet's water. These consultations are happening all around the world and must be STOPPED! Fluoridation is a punishable crime!

(4) Economic

How will the local alcohol industry, for example Tetley Beer, respond to having to re-label all their products with levels of fluoride, a controversial substance? Water without reservation is our number one economic commodity – it is fundamental to human life, and is even more valuable than the pieces of paper we ascribe monetary value to. To quote the activist Alanis Obom(o)sawin from the Abenaki tribe from the Odanak Reserve North East of Montreal. Both truthful and profound he noted:

'When the last tree is cut, the last fish is caught and the last river is polluted, when to breath the air is sickening, you will realise too late, that wealth is not in bank accounts and that you cannot eat money!'

Oxford Dictionary of Proverbs, 2009

Secondary to economic factors, if a large spill of fluoride inadvertently happens, it could kill or injure thousands of people and spell insolvency for Wakefield and West Yorkshire – To recapitulate fluoride is not financially worth the RISK!

(5) Enactment

The law on fluoride is very simple and can be summarised as the following two adages:

(A) Absolutely Safe and No Risk = LEGAL

(B) Potential Risk or the Management of Adverse Risk = ILLEGAL

In short, it seems the aforementioned considerations have not in effect been considered or given due attention by successive governments, and the juggernaut fluoride is running ahead at full speed with total legal impunity. A rollercoaster out of control, the policy is heading for an unmitigated disaster.

Let's be clear the York Report could not make any confident statements about fluoride. This is because despite anecdotal evidence from the late 1940s regarding fluoride and its potential benefits for oral hygiene, the studies have not delivered the proof! The majority of early research, almost without exception,

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was funded by the luminaries of the steel and aluminium industries from which fluoride is a waste product (Please see my first Report to Wakefield Council). There is when examined closely no consensus, the scientific evidence of fluoride is based upon a very shaky edifice and is a point that is made with increasing frequency when one begins to study the history of fluoride within medicine. In the words of the York Review of 2000 to reiterate:

'Given the level of interest surrounding the issue of public water fluoridation, it is surprising to find that little high quality research has been undertaken...'

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation,
The University of York, Report 18, pxiv

The point regarding fluoride and its efficacy is not just a common concern that is made by the peer reviewed York Study but is also articulated by the eminent researcher Professor John Doull M.D., PhD Emeritus of Pharmacology and Toxicology at the University of Kansas Medical School. A distinguished scientist and past President of the Society of Toxicology, he currently sits on the American Board of Toxicology. Professor Doull is the recipient of many awards, including the International Achievement Award from the International Society for Regulatory Toxicology and Pharmacology, the Commanders Award for Public Service from the Department of the Army, and the Stockinger Award from the American Conference of Governmental Industrial Hygienists.

In addition to having published many papers, he is former Chair of the National Research Council Committee on Toxicology and former Vice Chair of the Board on Environmental Studies and Toxicology. In terms of qualifications, he is an exemplary witness and is prominently placed within the industry. In relation to the contention of fluoride and its documented safety, Professor Doull's words are very sobering. Unequivocal, he highlights that the scientific issue of fluoride's efficacy is far from resolved and questions the lack of scientific evidence to quote:

'What the committee found is that we've gone with the status quo regarding fluoride for many years—for too long really—and now we need to take a fresh look . . . In the scientific community people tend to think this is settled. I mean, when the U.S. surgeon general comes out and says this is one of the top 10 greatest achievements of the 20th century, that's a hard hurdle to get over. But when we looked at the studies that have been done, we found that many of these questions are unsettled and we have much less information than we should, considering how long this [fluoridation] has been going on.'

Article Summary, Scientific American, January 2008

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This conclusion is essentially the same summary that the York committee submitted to the government concerning the long term safety of fluoride in 2000 and was also repeated earlier in the Australian Brisbane Review of 1997. In particular the York Study outlined many of the unanswered questions relating to the substance and its toxicity to humans, from which ultimately the committee was unable to answer, to re-quote section 12.7:

Other factors to be considered:

‘The scope of this review is not broad enough to answer independently the question ‘should fluoridation be undertaken on a broad scale in the UK’? Important considerations outside the bounds of this review include the cost-effectiveness of a fluoridation program, total fluoride exposure from environmental and non-environmental sources other than water, environmental and ecological effects of artificial fluoridation and the ethical and legal debates’.

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation, The University of York, Report 18, p68

In other words, the York Report the biggest review of all the literature on fluoridation completed in the UK was unable to answer directly the question: ‘Should *fluoridations be undertaken on a broad scale in the UK*’? – and with good reason! Examination of all of the available evidence suggests that large sections of scientific data appear either to be missing, contradictory, or plainly inadequate, and is expressed in the words of the Study Coordinator at York, Section 3.1 General Results:

3.1 General results

‘The search identified over 3200 papers, of which 734 met relevance criteria. None of the included studies were of evidence level A. The reason for this among the studies evaluating dental caries was that none addressed three or more confounding factors... Among the studies of possible adverse effects of water fluoridation,... the majority were found to be level C evidence because they lacked a prospective, longitudinal design’.

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation, The University of York, Report 18, p10

A brutally honest assessment, it is a disquieting thought to realise that the biggest evidential review on fluoride in the United Kingdom could find no Grade A Studies, in which the majority of scientific work was mediocre and graded just at a ‘Level C’. Where then is the research, the conclusive proof that fluoride is beneficial for human consumption? There has been a number of really good independent studies commissioned into fluoride that have shown systematic problems with the agent and in most cases, these papers were either not

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submitted for review or their risks underrated. In their diagnosis of the problem, the committee members of the York Review highlighted a number of confounding factors, addressed in Section 4.9, Discussion, the excerpt reads:

4.9 Discussion

‘While many cross-sectional studies exist, relatively few studies were designed to assess the effects of water fluoridation over time. Studying populations exposed or not exposed to water fluoridation longitudinally allows baseline dental health to be taken into account and differences developing over time to be assessed. Studies that assess dental caries at one point in time using an ecological or cross-sectional study design only show the differences in caries prevalence at that particular point in time. In such studies it is not possible to tell whether the observed differences have always existed between these populations or whether they are the result of the differing levels of water fluoride content between the study areas’.

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation, The University of York, Report 18, p24

The answer, concerning the question of differences between populations relative to fluoride exposure according to the York Review could not be answered. To sum up the survey of the prevalence of caries in different sections of the population groups are statistically insufficient in their analysis to predict the progression of disease. Incredibly the diagnosis of dental decay in conjunction to fluoride is not traced chronologically in any meaningful way.

This omission limits the conclusions that can be extrapolated from the data. Thus for example, the differences that we might expect to see amongst socio-economic background, age and sex cannot be readily determined. The York Review highlighted that despite the large number of studies carried out over several decades, the Government’s Civil Service had a ‘*dearth*’ of reliable evidence from which to inform policy. In an open letter to the Government, Professor Trevor Sheldon the Chair of the York Review Advisory Panel stated emphatically that:

‘Until high quality studies are undertaken providing more definitive evidence, there will continue to be legitimate scientific controversy over the likely effects and costs of water fluoridation’.

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment, SN/SC/5689 2 September 2013, p12

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This then by Professor Trevor Sheldon is a very clear statement to the government to provide more clear evidence that fluoridation works. He described the issue at hand as a *'legitimate scientific controversy'*. These are immensely 'strong words' from a very senior academic and under these circumstances it appears that ministers did not fully address the genuine concerns of Professor Trevor Sheldon's systematic review and failed to follow his advice. In responding to the review, the Department of Health made it very clear its view that the York Study 'supported' water fluoridation as an effective means of reducing caries in the population of children, a situation maintained in a Department of Health Press Release ('Government Welcomes New Report on Water Fluoridation', October 6th 2000), it read:

'The Government will encourage health authorities in areas with particular dental health problems to consider adding fluoride to their water to help reduce tooth decay.'

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment, SN/SC/5689 2 September 2013, p12

As York University was critical of the quality of evidence provided and expressed their concerns in writing, the Government asked the Medical Research Council to advise further on any research priorities. Extremely political the vexed position of the government promoting fluoride, counter to the advice of the York Chair, is a travesty! Inexplicable, the Secretary of Health effectively ignored Professor Sheldon's guidance concerning the need for more *'high quality studies'* and the *'legitimate scientific controversy over the likely effects and costs of water fluoridation'*. In the Department of Health's press article the government issued a damage limitation statement in an attempt to bridge the contradictions within the York Report, and in a dishonest tone the ministerial office reported:

'Welcoming the report, the Government said it clearly shows that fluoridating water helps to reduce tooth decay. In areas where overall health is lower than average, dental health is much higher if the water is fluoridated.'

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment, SN/SC/5689 2 September 2013, p12

Tremendously confident, the tone of language within the aforementioned article, coupled with the government's defiance over the recommendations of the York Review Committee, showed both a breach of trust and negligence regarding public health. Calling the Health Department to account, the conclusion of the York Report and its summaries made no such assertions and in fact stated the exact opposite, in the words of Professor Sheldon:

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'The research evidence is of insufficient quality to allow confident statements about other potential harms or whether there is an impact on social inequalities.'

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation,
The University of York, Report 18, pxiv

The previous affirmations made by the eminent Dr Sheldon are appurtenant to the fluoridation of Wakefield and Hull. This is because the pro-fluoride lobby are contending that the 'treatment' of water supplies will reduce social inequalities in dental hygiene, a point that has never been formally substantiated. The York Report could find no evidence to support this claim. Perhaps even more troublesome the press release cited in the above article also shows conclusively that sections of the government are quite willing to lie to the general population in order to fulfil political and economic objectives.

Contentious and highly disputed, the predefined policy of fluoridation appears cynically to be more motivated in lining the pockets of the pharmaceutical industrialists than public healthcare. In the same press release, the government also stated the following as a matter of fact:

'The [York] report also responds to concerns about the health effects of water fluoridation. It concludes that no association has been shown between water fluoridation and cancer'...

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment,
SN/SC/5689 2 September 2013, p12

The statement, although presented as reassuring and dispelling public fear, is in fact another fabrication of the evidence. It is worth taking a closer look at what the York Report stated in its tabulated summaries regarding the incidences of cancer, and is an important point that in the evidence submitted was conveniently overlooked by the Labour Government of the day. On the rates of cancer, the authors of the York Report stated the following significant observations:

Cancer – Authors of the York Report Conclusion

'The relative risk of death from cancers of the bones and joints was the same after 20-35 years of fluoridation as it was in the years immediately preceding fluoridation. A similar lack of relationship to timing of fluoridation was noted for the incidence of bone and joint cancers and osteosarcomas. The relative risk of developing these cancers 20 or more years after fluoridation was lower than the risk associated with less than five years of fluoridation among both males and females.'

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation,
The University of York, Report 18, p57

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Superficially the review of the evidence is less than satisfactory and demonstrates an increase in cancer during the initial stages of fluoridation. Although unclear, the rise in cancer might suggest that sections of the population are intolerant to 'low' levels of fluoride that magnify risk during short term exposure. Following this sharp incline, the number peaks and then begins to flatten out.

Unchallenged by the York Review, the disparity within the higher numbers of mortality suggest to this author that the short term figures of cancer rates taken from Dr. R. N. Hoover's Study in 1991 were recent and 'unadjusted' figures from the Department of Health, whereas the longer term results were from much older studies and were therefore 'adjusted' for variables (See Hoover's Fluoridated Drinking Water and the Occurrence of Cancer, 1976). Indefinite, the idea that these figures may have been 'tampered' with, in the words of the NHS Reviews and Dissemination (corrected for statistical variance), seems in context to the evidence more than a likely possibility...

The inadvertent observation of the York Report and its enumeration of short term danger attributed to fluoride may be an important and overlooked point. For example, the suggestion if true might explain possibly the difficulty in analysing or predicting results pertaining to carcinoma and their rates in fluoridated regions. This is because the results observed independently are context dependent, from which the duration of the study might also pose or exhibit computational or confounding factors.

The conclusion contained within the York Report and the Chair's observations imply that exposure to fluoride agents in the short term is more risk adverse than in the long term. Conflicted, the reasons for the incongruity within the figures pertaining to short and long term contamination is not known, it is possible however that the body when subject to continued exposure to poison in the environment can in some instances adapt. In the short term however there is an explosion of cancer rates in the first years of fluoridation. Over the longer periods the cancer rates begin to flatten out in demographical studies as intolerant members of the population die off.

As a parenthesis to these unsatisfactory conclusions by the York Review, the Researcher Lynch found the opposite trend, in which long term consumption of fluoride led to an increased likelihood of tumours, e.g. continued exposure leads to magnified risk – See Dr. C Lynch, Fluoride in Drinking Water and State of Iowa Cancer Incidence, The University of Iowa, 1985.

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Critical, the York Report also noted several unsettling trends. For instance in the Freni research paper of 1994, there is a clear negative association found between high fluoride levels in drinking water and lower birth rates. The data appeared to indicate an increase within sterility inside of fluoridated regions (SC Freni, Exposure to High Fluoride Concentrations in Drinking Water is Associated with Decreased Birth Rates, J Toxicol Environ Health, 1994, 42(1): 109-21).

In another separate report submitted directly to the York Committee in 1999, the author Packington concluded that fetal, perinatal and infant mortality, inclusive of congenital malformations and Down Syndrome, are all higher in fluoridated areas of England. For the rates of cancer, the York Report concluded that the 'available evidence' demonstrated no link between cancer and fluoridation. In reviewing the evidence however they did make reference to several studies that contradicted the safety of fluoride (Smith and Lynch). The report sensibly suggested an immediate analysis of UK data on cancer and its distribution in fluoridated regions, to quote:

'Another issue is the possible role of fluoride and fluoridation on cancer incidence. Although available evidence suggests no link between water fluoridation and either cancer in general or any specific cancer type (including osteosarcoma, primary bone cancer), an updated analysis of UK data on fluoridation and cancer rates is recommended.'

Water Fluoridation and Health, Working Group, Medical Research Council, p3

As far as this author is aware, a systematic updated analysis of fluoridation and cancer rates based upon the NHS database has never been conducted. Research from Harvard however compiled from the largest comprehensive study on osteosarcoma showed a correlated risk with fluoride (Bassin, Cancer Causes and Control, 2006).

Extremely incoherent, it can be said that for every positive review made by the proponents of fluoride equally there exists an intelligent controvertible argument, with reference to health implications or elevated risk. Let's then look critically at some of these statements made for and against fluoride, and begin with some of the 'positive benefits' of fluoridation from the Royal College of Physicians and their rebuttal by the equally prestigious American scientific organisation The National Research Council and their review summaries of fluoride limits within drinking water in 2006:

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Listed Arguments For and Against Comparative Table

1(a) For Fluoridation: Royal College of Physicians

Chronic Toxicity

After considering all the evidence the Committee stated:

‘There is no evidence ... that either condition (i.e. skeletal or dental fluorosis) can be produced by fluoride at a concentration of 1ppm irrespective of whether the water is soft or hard’.

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p3

1(b) Against Fluoridation: Review of the National Research Council Report 2006:

Chronic Toxicity

Moderate dental fluorosis is an adverse health effect occurring at fluoride levels of 0.7–1.2 mg/L, the levels of water fluoridation’.

Robert J Carton, Ph.D. Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, p171

2(a) For Fluoridation: Royal College of Physicians

Musculo-Skeletal Disorders

The Committee concluded:

‘There is no evidence that the prevalence of any musculo-skeletal disorder is increased in areas with fluoride at a concentration of 1ppm in the drinking water’.

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p4

2(b) Against Fluoridation Review of the National Council Report 2006

Musculo-Skeletal Disorders

‘Stage I skeletal fluorosis, (arthritis, clinically manifested as pain and stiffness in joints) is an adverse health effect which may be occurring with a daily fluoride intake of 1.42 mg/day, which is less than the amount the average person already obtains in their diet in non-fluoridated areas. The Maximum Contaminant Level Goal (MCLG) should be zero’.

Robert J Carton, Ph.D. Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, p171

3(a) For Fluoridation: Royal College of Physicians

Thyroid

‘The distributions of endemic goitre and dental fluorosis were once thought to be similar and hence fluoride was thought to be a causative factor. The Committee considered the evidence and concluded: ‘...there is no evidence that fluoride is responsible for any disorder of the thyroid’.

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p5

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3(b) Against Fluoridation: Review of the National Council Report 2006

Thyroid

‘Decreased thyroid function is an adverse health effect, particularly to individuals with inadequate dietary iodine. These individuals could be affected with a daily fluoride dose of 0.7 mg/day (for a “standard man”). Since this is less than the amount already in the diet, the Maximum Contaminant Level Goal (MCLG) should be zero’.

Robert J Carton, Ph.D. Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, p171

4(a) For Fluoridation: Royal College of Physicians – *Endocrine Disorder*

‘More adequate studies have revealed no relationship between fluoridation and parathyroid disorders, or any other endocrine disorder’.

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p5

4(b) Against Fluoridation: Review of the National Council Report 2006

Endocrine Disorder

‘Glucose tolerance was identified as occurring in humans at levels as low as 0.07 mg/kg/day or 4.9 mg/day for a 70-kg man. Either of these effects could occur at water fluoridation levels of 1 mg/L to some people with the high water intakes identified in the report’.

Robert J Carton, Ph.D. Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, p169

5(a) For Fluoridation: Royal College of Physicians – *Miscellaneous Disorders*

‘The Committee concluded: “There is no evidence that allergies, thyroid disorders or any of the conditions referred to can be caused by 1ppm fluoride in drinking water’.

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, pp5-6

5(b) Against Fluoridation: Review of the National Council Report 2006

Neurotoxicity and Neurobehavioral Effects

‘The committee also cited research indicating adverse health effects such as lower IQ in children, behavioural, and histopathological changes in the brains of laboratory animals (some of these resembling the brains of Alzheimer’s patients), cerebral impairment of humans, and enhancement of effects in the presence of aluminium. The report concludes: “fluorides have the ability to interfere with the functions of the brain and the body by direct and indirect means... An appropriate safety factor does not have to be mentioned to see clearly that fluoridation at 1 mg/L cannot be considered acceptable for an MCLG’[The recommended Maximum Contaminant Level Goal].

Robert J Carton, Ph.D. Review of the 2006 United States National Research Council Report, Fluoride in Drinking Water, pp170-171

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This then is clearly an impasse if two large well funded organisations that contain senior scientists and medical figures cannot decide on what constitutes safe levels of exposure... Who can? In case we are left in any doubt as to the level of expertise, the report summary based on the National Research Council is a part of the National Academies and includes the crème de le crème of American intelligentsia including the National Academy of Science, the National Academy of Engineering, and the Institute of Medicine. A main advisory body on government legislation the National Research Council recommendations are produced and overseen by the Board on Environmental Studies and Toxicology.

To clarify the National Research Council's report is the largest review of the evidence outlining the toxicity of fluoride. Relative to the Royal College of Physicians, the American survey into fluoridation is a more objective study and is based upon 70 years of fluoridation in the states, from which proportionally a larger quantity of public data is available. More importantly the Research Council gives specific doses of fluoride consumption based upon scientific results, important information that is crucially missing from the Royal College of Physicians.

The Toxicity Levels of Fluoride Data Summary by National Research Council:

Harmful effects at 1mg/L (and below)	1.5-14.5 mg/L (fertility)
Skeletal Fluorosis at 1mg/L	1mg/L
Dental Fluorosis at 1mg/L	0.7-1.2. mg/L
Dental Mottling at 1mg/L	1ppm
Increase within Cancer (bone)	500% [Dr. Elise Bassin study]
Increase in Thyroid Disorders	30% [Professor Peckham]

The published information within the National Research Council's massive and comprehensive report is not 'conjecture' but is 'factual' and 'evidence based'. Not surprisingly the members of the National Council's established and illustrious institution endorse the immediate reduction of fluoride within water supplies throughout the United States. Unequivocal the 'best evidence' to date indicates long term adverse health problems associated with fluoridation in the United States.

In its conclusion, the Research Committee's report is even more cautious than the York Report's suggestion to review fluoridation. Timid by comparison, the York University's cautionary stance of 'wait and see' is contrasted within the United States, in which the National Research Council and in particular the appraisal of its own report, 'Review of 2006 United States National Research Council Report on Fluoride in Drinking Water' by Dr Robert J Carton, PhD.,

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a senior toxicologist from the Environmental Health Agency stated an immediate reversal of policy. To elucidate, Dr Carton's own unshakeable position articulated in his own words:

'[I became] aware of possible scientific fraud in the development of the Environmental Protection Agency's standards for fluoride in drinking water and convinced the union to challenge the EPA in court'

Dr Robert J Carton, Ph.D, Review of 2006 United States National Research Council Report on Fluoride in Drinking Water, 2006, p163 footnote (a)

These are formidable claims from a senior scientist, who wrote the first safety protocols for asbestos in the United States enforcing regulatory limits to reduce industrial discharges of the lethal mineral from manufacturing plants. In his review, Dr Robert J. Carton highlights the stark contradictions within the fluoridation policy that according to the National Research Council's analysis is injuring thousands of people each year. Of particular merit, the Research Council's survey of fluoride is more detailed than the York Report and goes into considerably greater depth including details of fluoride and its toxicity at one part per million, the current level of fluoridation in the UK.

For a moment and being non-partisan, why should we believe the National Research Council and its investigations over the York Report? There are several major reasons why the National Academy's paper exceeds the York Review. First and most important, the NHS and Public Health England are in many of their current documents using outdated information. In addition much of the *'best evidence'* that is available today is not published in the United Kingdom, this is because the American fluoride schemes are both bigger in size and have been running for much longer in the United States.

Put simply, America has more detailed information on fluoridation than the UK data sheets. The National Academy has considerably greater resources and extra medical experts to call upon. On examining the National Research Council, the organisation is made up of four parts, including medicine, science, toxicology, and engineering. Decisive, the NRC Review is the largest systematic investigation into fluoride that has ever been conducted in the United States. In particular, the American Board on Environmental Studies and Toxicology's scientific remit is centred upon 'fluoride amounts' and its impact upon human health.

To epitomise the report 'Fluoride in Drinking Water: A Scientific Review of the Environmental Protection Agency's Standards 2006' contained 7 times more consultants than the York Report and was written 6 years after the English

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Study. In addition, the Research Council's final submittal contained 4 times more pages, with 4 times more books within the bibliography and examined 4 times more studies into fluoride. In summing up, it was the largest ever review in the western hemisphere into fluoride, and its pages denounce the logic of fluoridating water on the grounds of perceived health properties.

The 'evidence' to date does not support fluoridation and furthermore the 'best evidence' does not originate from the United Kingdom. Unlike the York Report, the National Council provided direct information appertaining to levels of fluoride and fluorosis including the side effects of skeletal-fluorosis and clastogenicity (damage to DNA). In scale, the National Council's Report is the definitive study to date on fluoride, and its large review of databanks is given in comparison to the York Report and its modest offering.

The actual quota rates published between the National Research Council and the York Review is summarised in the table below:

National Research Council 'Best Evidence' in Comparison to the Smaller York Report

<u>Details</u>	<u>National Research Council</u>	<u>York Report</u>
Author No.	72 People on the Board	10 Authors
Number of Pages	449 Pages	110 Pages
Bibliography Pages	60 Pages	15 Pages
References / Studies	Approximately 1000	285 Studies
Date	2006	2000

On reflecting upon the difference within the figures and scope of the two reports, it can be said that the National Research Council has more detailed information than the York report. Furthermore, the National Academy contains extra facts and figures including more importantly the recorded levels of fluoride and its adverse effects. Extremely crucial, the data gleaned from their research demonstrates that the measurement 1pmm (one particle per million) equivalent approximately to 1mg per litre of fluoride or less is potentially dangerous to human health, and therefore contradicts the UK government's proposals.

In the UK prior to the National Research Council's Review in America, the Labour Government remained reluctant to revise or change its public health strategy. Unexpectedly the submittal by the Secretary of State introduced new provisions in the Water Act 2003 to allow strategic health authorities to require (illegally) water companies to fluoridate water after consultation with the local population. Previously the council could make a request but the water companies

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did not have to accede to this (the legislation relating to fluoridation is set out in Library Standard Note 3135 *Fluoridation: Legislation*).

Slightly earlier from the updated Water Act of 2003 and following on from the York Committee 2000, the government recommissioned another study this time by the UK Medical Council. The report was rushed out on the 29th of December 2000 for the New Year and updated in September 2002. Reconciliatory its primary aim was to validate fluoride and once again to restore the public's confidence. Unlike the York Review (a decent study given the lack of data) and the far more accomplished assessment from the National Research Council in 2006, the UK Medical Council Report counter to the evidence available advised its members against all caution and gave recommendations that fluoridation schemes should proceed.

Given the circumstances of the clear lack of guidance this was a highly suspect judgement! Without sounding too sceptical and alarmist, it appears that the UK's Medical Research Council totally disregarded the York Review and had its own inexorable agenda. A total reversal, this intent appears to have been the steam rolling of fluoride into the poor communities as fast as possible, whilst simultaneously avoiding any mention of risk. A champion of fluoridation the UK Medical Council's exhortations seems far more concerned with the protection of the fluoride commercial sector and its financial interests than scientific objectivity, to quote:

'In an era when 'science' is under increasing public and political scrutiny, and in which the media can generate unrealistic and unachievable expectations of certainty or 'proof', there is a need to communicate honestly and openly about the levels of certainty that can and cannot be inferred from research findings. Uncertainty is an inherent feature of science and medicine, but this is a concept that seems not to be well understood by the public.'

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p8

Renegade in tone, this comment from the UK Medical Research Council in 2002 is typical of the heedless disregard inherent within sections of the medical community that are resolute on safeguarding the interests of the pharmaceutical companies. Rather bewildering, the case of water fluoridation from the Medical Councils' own report lacks clarity, and instead of the innate expectation of 'certitude' of 'best practice' demanded by the public sector, this objective is reneged as an *'unrealistic and unachievable expectation'*. Rather discouragingly, the aspiration of *'certainty'* or *'proof'* is dispensable!

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The law however on fluoridation is clear, proper safeguards must underpin all policy on the efficacy and safety of fluoride. To emphasize, confidence in medicine should be a realistic and achievable goal, if researchers cannot assure the welfare of the community, then fluoride should not be put into the drinking water on the grounds of public health.

The central proposition must surely hinge upon the reliance that fluoride is fit for public service. The issue of safety is paramount and if it cannot be 'guaranteed', then the proposals are not acceptable and neither are they legal! Rather ominous, the archetypical canon of research based evidence within medicine is being deliberately eroded away!

In this model, the politic of 'science' is transferred to 'public opinion' and becomes a question of informed 'debate' that is contingent paradoxically upon obscured or missing data. The prognosis based upon 'reliable evidence' is forfeited for political gain and is instead substituted with the questionable maxim 'best evidence'. Indefensible, the conviction adopted by the UK Research Council, supposedly a 'top' medical institution, is both demoralising and inexcusable!

To repeat, if ambiguity exists within the data and a hypothesis cannot be tested, then it is not fit for public purpose. If the reliability of data is not assured, then caution must exceed public health initiatives, and in fact such action is a legal prerequisite. Without meaning to sound derogative, good science does not deal with 'speculation' but instead with what is 'known' and can be extrapolated from the 'facts'.

To call attention to the Medical Council, it is an unacceptable position to have any degree of 'uncertainty' regarding such an imperative public health issue as fluoride. This is because a 1% differential in the oncological risk associated with the fluoridation of water could inadvertently cause a cancer epidemic and kill thousands of people. Legally the law does not allow for 'uncertainty' if such ambiguity exists, the legal requirement is simple, the legislation does not permit agents into the water that can cause public hazard.

Vacillation between the 'known' and 'unknown' is a very dangerous precedent when 'science' is not at the forefront of pharmacovigilence, to quote once more the misguided statements attributable to the British Medical Council. Counter to sensible reason the report incredulously continues in this very precarious way and states its intentions overtly. With regards to public security and fluoridation, the UK Medical Research Council states:

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'...this is not simply a matter of science - it involves value judgements, and individuals may weigh the risks, benefits and attendant uncertainties differently'

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p7

Bordering on the treacherous, medicine especially within the public sphere does not involve *'value judgements'* but *'science'* and *'expertise'*! Fluoridation therefore should not be about *'weighing up the risks'* but rather mitigating risk. The judgement then is very clear and it frustrates this writer that one needs to emphasize the legal aspects of the law – to learned intellectuals that really should know a lot better! To reiterate, under the law it is not permissible for different individuals to weight up the risks differently, and this is because of the stringent requirements of the Water Act 2003. The articles contained within this enactment do not authorize or permit ingredients into the water that can cause 'potential harm'.

The issue of fluoridation is not idle speculation, it informs the lives and wellbeing of thousands of citizens. Inherently very misleading, the Working Group Report from the UK Medical Council is designed to inform the consensus that there lacks uniformity within the scientific discourse. This position is clearly not true, as we know of the levels of fluoride that lead to harm to the individual and in each case the minimum measurement of fluoride needed to impact upon health is below one particle per million, the same amount as fluoridation, to quickly quote the senior toxicologist from the Environmental Protection Agency Dr Robert J Carton, Ph.D and his 'Review of the 2006 United States National Research Council Report'. Precise, the disseminated figures are extremely accurate and are obtained from the American Research Academy – the largest systematic Review in the world on fluoridation and its toxicological effects, the evidence is clear and is summarise in the table below:

National Research Council Fact Sheet Data Summary Results of Fluoride Toxicity

<u>Disease Definition</u>	<u>Fluoride Levels Attributed to Disease</u>
Chronic Toxicity	0.7–1.2 mg/L, the Levels of Water Fluoridation
Musculoskeletal Disorders	1.42 mg/day – Recommended Level Zero
Thyroid	0.7 mg/day (for a 'Standard Man')
Endocrine	As Low 1 mg/L per day (Vulnerable Groups)
Neurotoxicity	1 mg/L Suboptimum for Contamination Level

There is then no 'debate', the science has already been established and the UK Medical Council has completely missed the point. To restate, the American

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National Research Council conducted the largest methodological study in the world on the toxicological levels of fluoride within drinking water. We might therefore speculate about the migration patterns of killer whales, but there is no 'conjecture' or 'guesswork' with regards to fluoride. The figures are known and are published in peer reviewed journals. This is not a lazy 'opinion', 'theory', 'postulation', 'hypothesize', 'supposition' or 'guesswork', the figures are 'FACT', in much the same way that medical science has established the 'fact' that 'plutonium' is dangerous to living organisms. There is then no debate and the argument that such a debate exists is in itself spurious and casuistic in its reasoning.

I will say this clearly to the British Medical Council to ignore the American National Research Council's data and to pretend that there is a discussion on the safe levels of fluoride in drinking water is dishonest and potentially very misleading, to repeat once again the UK Medical's Council's illogical and legally dubious position:

'... individuals may weigh the risks, benefits and attendant uncertainties differently.'

Working Group Report, Water Fluoridation and Health,
Medical Research Council, 2002, p7

Castigating the UK Medical Research Council, individuals may weigh up these '*risks...differently*' but when the level of danger has already been established by the American National Research Council if those hazards are flagrantly ignored then there is a legal breach of trust and law suits will follow as night follows day. This is not a 'vote of confidence', the politic of medicine concerns the well-being of everyone within Yorkshire. Unless the British Medical Council can proof scientifically that America's cleverest scientists and intellectuals are 'wrong' and their figures on the toxicity of fluoride are 'incorrect', then they cannot rewrite the law.

The Medical Council do not have the legal authority nor impunity to disregard the figures and weigh up the '*risks differently*'. This course of action is not only 'wrong' but is a medical conspiracy with intent to harm the general public, and benefits only the corporate interests. Relatively recent, the sinister change of direction is informed or so it appears from the European Directive 2001/83/EC, sections 2 & 3, to quote:

(2) The essential aim of any rules governing the production, distribution and use of medicinal products must be to safeguard public health.

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(3) However, this objective must be attained by means which will not hinder the development of the pharmaceutical industry or trade in medicinal products within the Community.

Directive 2001/83/EC of the European Parliament and of the Council, 6 November 2001,
On the Community Code, Relating to Medicine Products for Human Use, p2

In the directives outlined, there is an uneasy dichotomy between the 'public health' weighed against 'corporate wealth'. Of concern we might ask ourselves who are these 'individuals' that the British Medical Council have instigated the fundamental right to weigh up the 'risks differently' from the overseers of the scientific community. A subterfuge of common reason, this is the 'doctoring' and marketing of information manufactured through 'science'. Paid for by 'public money', the manifesto callously disregards results 'based medicine', in short the 'facts' and removes the emphasis of 'proof' towards the bastion of truth 'public opinion'. A pretext, this ploy attempts to censor knowledge and disregard the 'facts'. Let's then take a little time to look at this sea of change.

The European Parliament headed under pharmaceutical interests will, if we allow the legislation to run its course, make decisions based upon '*value judgements*' in which the share price and the market index will undermine therapeutic medicine. The ruling of Directive 2001/83/EC in effect allows state sanctioned intervention. This is a big shift within medical ideology and is central to the fluoridation issue that is prescribed fraudulently as 'public medicine', in a general sense the '51% of the adult population'.

In this world, responsibilities for the patients are moved away from Doctors to private and corporate interests, the competing '*individuals [that] may weigh the risks, benefits and attendant uncertainties differently*'. Within this paradigm, both the industrial sector and the 'politique' class can inform decisions about medicine. A reversal of the methodology of 'science', empirical standards become subject to or secondary to 'opinion', from which 'facts' are trivialised and are devalued as 'conjecture', 'discourse' or 'argumentation'. Very disturbing within this methodology, the legal framing of arguments sets precedence over the 'science of medicine'.

If we allow this shift in common public decency to occur, where will it stop? Will we put contraceptives into the water of poor communities, drug our militaries with testosterone, and add anti-depressants to communal water supplies, perhaps even cyanide to the sick and dying... Especially with regards to the deeper ethical issues, it is imperative therefore that we partition council members and those in power to think through these developments very carefully. Principally we must protect our dignity and the level of trust we grant to public

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interventions and these intercessions must be based on ‘Human Rights’. If we allow ourselves to let one principle slip, we are on a very slippery slope in which the corporate interests dictate the rules – in essence a type of technocracy.

Think about what mischief this could entail if we relinquish the objectivity of science, and replace it with the subjectivity of ‘opinion’ in which ‘... *[Corporate] individuals may weigh the risks, benefits and attendant uncertainties differently... and the [safeguarding of public health] will not hinder the development of the pharmaceutical industry or trade in medicinal products within the Community*’.

Once again the provisions to protect trade and the corporate giants are found in the European Regulations Directive 2010/84/EU of the European Parliament and of the Council Pharmacovigilance that comments on the Community Code relating to medicinal products for human use, Directive 2001/83/EC – section 4 reads:

‘While the fundamental objective of the regulation of medicinal products is to safeguard public health, this aim should nevertheless be achieved by means that do not impede the free movement of safe medicinal products within the Union’. It has emerged from the assessment of the Union system of pharmacovigilance that divergent actions by Member States in relation to safety issues pertaining to medicinal products are creating obstacles to the free movement of medicinal products’.

Directive 2010/84/EU of the European Parliament and of the Council Amending, as Regards to Pharmacovigilance, Directive 2001/83/EC on the Community Code Relating to Medicinal Products for Human Use, Section 4, 15 December 2010, p1

Extremely divisive, this Directive describes the harmonisation of medicine within the Union, in which safety concerns although paramount should not be the governing criteria to stop the movement of free trade. A Directive, the objective is not ratified in law, and this is because the intention can never theoretically supersede the inalienable rights of the sovereign individual – a prerequisite that is fundamentally entailed within the Human Rights Act, Article 2 the ‘Right to Life’.

Having briefly discussed, the ethics of medicine and where it is heading under the European Dictat, let’s then refocus our attention back to the American National Research Council and their summaries of fluoride levels that clearly states the substance cannot be considered under the legal definition as a ‘safe medicinal product’. The implication of such a conclusion is that under the Directive 2001/83/EC the movement of fluoride (if agreed upon by the community

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rule) can be forcibly stopped and curtailed if it falls short of being a *'safe medicinal product'*... In context to the argument that fluoride is pernicious, it can be clearly shown that the substance is a 'poison' from the Latin verb 'potare' (to drink), to quote the Oxford English Dictionary:

Definition of a 'Poison'

- (1) *Poison – a substance that when introduced into or absorbed by a living organism causes illness or death.*
- (2) *Chemistry – a substance that reduces the activity of a catalyst.*
- (3) *Something has a destructive or corrupting influence.*

Oxford Dictionary of English 2e Revised, Oxford University Press, 2005, [poison]

In each of these concise definitions, the substance fluoride meets all of the criteria for a poison and is explained carefully in the listed items below. To reiterate each of these specifications correspond with the Oxford English Dictionary's interpretation of a poison:

Definition of a 'Poison'

- (1) Fluoride is absorbed into the tissues and bones through ingestion and causes skeletal-fluorosis including joint pain. Many studies have also shown elevated mortality rates in fluoridated regions.
- (2) Fluoride interrupts cell activity thus affecting enzymes within the body, catalysts or chemical signals that are designed to bring about biochemical reactions. Fluoride for example can disrupt hormones within the brain leading to thyroid problems and can also interfere with human sex hormone thus affecting the fertility of men and women.
- (3) As fluoride is a corrosive element upon the body and compromises the living structures of the brain, internal organs and cellular structure of the bones, then fluoride technically falls under the rubric of a destructive or corruptive influence.

The evidence therefore indicates that fluoride is a 'poison' and is a theoretical position acknowledged within the Review of the American National Research Council. Far-reaching, the conclusions are devastating for the pro-fluoridation lobby and completely impede the legal and medical justification for fluoride in drinking water.

A toxigenic substance, fluoride is a poisonous agent that cannot be introduced lawfully into clean water, when viewed in light of the recently published scientific evidence. Infusion of water with fluoride constitutes a federal crime

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within the Member States of Europe. Let's then look at the medical documentation of the harmful effects of fluoride. Legally resolute, the law does not permit fluoride into community supplies of water, a position that is elaborated in the US National Research Council's report. Abridged, the following sections are taken from the largest single report completed on the effects of fluoride, entitled 'Fluoride in Drinking Water, A Scientific Review of the Environment Protection Agency's Standards, Published by the National Academies, in Washington DC, 2006.

Academic in tone, the overwhelming evidence on fluoride provides in its summaries literally hundreds of pages detailing the negative health effects of fluoride upon the American population. An epidemiological study, the document possesses serious ramifications for the fluoridation schemes throughout Europe that under the current law remain (technically) illegal. Let's therefore examine the shocking conclusions that shatter the arguments fluoride is 'ex-cathedra' and can be sanctioned by the state.

(Section 2): American National Research Council:

Dental Research

In the introduction of the National Research Council's Report, its objectives are clearly stated to review the '*clinical data on fluoride*', including the remit to examine disease prevalence and the toxicological effects of orally ingested fluoride from drinking water. The provision is to give the Environmental Protection Agency clear guidelines '*to protect children and others from the adverse effects*'. In connotation, the preconditions laid out in the National Report are quite unlike Public Health England, whose mandate minimally allows the safeguarding of 51% of the adult population – a discussion we shall return to shortly. Outlining the Board on Environmental Studies and Toxicology, the National Research Council's objectives are stated clearly in the paper's précis, to quote:

In response to Environmental Protection Agency's request, the National Research Council convened the Committee on Fluoride in Drinking Water, which prepared this report. The committee was charged to review toxicologic, epidemiologic, and clinical data on fluoride... [including] exposure data on orally ingested fluoride from drinking water and other sources... and the adequacy of those guidelines to protect children and others from adverse health effects'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Academies, Washington DC, 2006, pp1-2

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To elaborate, this is the largest systematic study upon the adverse health effects of fluoride within drinking water and documents exposure from other sources, such as ingestion from toothpaste and absorption from tea. The report begins first with the definition of 'fluorosis', a condition that is derived from the etymology of 'fluoride', Latin 'fluere' (to flow). In terms of level of exposure, fluorosis is consistent with current measurements in the UK of one particle per million, on the definition of the dental condition fluorosis and its severity, the editorial write:

National Report Council – Effects of Fluoride on Teeth, Health Issues and Clinical Treatment

'Whether to consider enamel fluorosis, particularly the moderate to severe forms, an adverse cosmetic effect or an adverse health effect has been the subject of debate for decades. Some early literature suggests that the clinical course of caries could be compromised by untreated severe enamel fluorosis. Smith and Smith (1940, pp.1050-1051) observed, "There is ample evidence that mottled teeth, though they be somewhat more resistant to the onset of decay, are structurally weak, and that unfortunately when decay does set in, the result is often disastrous. Caries once started evidently spreads rapidly. Steps taken to repair the cavities in many cases were unsuccessful, the tooth breaking away when attempts were made to anchor the fillings, so that extraction was the only course'...

'... Gruebbel (1952, p153) expressed a similar viewpoint: "Severe mottling is as destructive to teeth as is dental caries. Therefore, when the concentration is excessive, defluorination or a new water supply should be recommended. The need for removing excessive amounts of fluorides calls attention to the peculiar situation in public health practice in which a chemical substance is added to water in some localities to prevent a disease and the same chemical substance is removed in other localities to prevent another disease." Dean advised that when the average child in a community has mild fluorosis (0.6 on his scale), ". . . it begins to constitute a public health problem warranting increasing consideration" (Dean 1942, p. 29). There appears to be general acceptance in today's dental literature that enamel fluorosis is a toxic effect of fluoride intake that, in its severest forms, can produce adverse effects on dental health, such as tooth function and caries experience'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protective Agency's Standards, National Academies, Washington DC, 2006, p87

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The National Council Report goes on to cite evidence within various and diverse studies to show that the net outcome of fluoridation is the gradual weakening of tooth structure, a process summarised through the stages of fluorosis. In these independent studies, the research shows a correspondence between fluorosis and decreased functionality of the tooth, evident within the National Academies findings:

For example -:

1. *'[T]he most severe forms of fluorosis manifest as heavily stained, pitted, and friable enamel that can result in loss of dental function' (Burt and Eklund 1999).*
2. *'In more severely fluorosed teeth, the enamel is pitted and discolored and is prone to fracture and wear' (ATSDR 2003, p. 19).*
3. *'The degree of porosity (hypermineralization) of such teeth results in a diminished physical strength of the enamel, and parts of the superficial enamel may break away... In the most severe forms of dental fluorosis, the extent and degree of porosity within the enamel are so severe that most of the outermost enamel will be chipped off immediately following eruption' (Fejerskov et al. 1990, p. 694).*
4. *'With increasing severity, the subsurface enamel all along the tooth becomes increasingly porous . . . the more severe forms are subject to extensive mechanical breakdown of the surface' (Aoba and Fejerskov 2002, p. 159).*
5. *'With more severe forms of fluorosis, caries risk increases because of pitting and loss of the outer enamel' (Levy 2003, p. 286).*
6. *' . . . the most severe forms of dental fluorosis might be more than a cosmetic defect if enough fluorotic enamel is fractured and lost to cause pain, adversely affect food choices, compromise chewing efficiency, and require complex dental treatment' (NRC 1993, p. 48).*

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Academies, Washington DC, 2006, p87

Thus with fluorosis the structure of the enamel is weakened and is prone to the mechanical breakdown of the surface of the tooth, including the disintegration of the outer surface, in the words of Levy *'With more severe forms of fluorosis, caries risk increases because of pitting and loss of the outer enamel'*. Note also the correct scientific terminology which is used to describe this process the

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'*hypermineralization*' of the tooth. Within the majority of dental reports and literature, the biological process is referred to erroneously as the 'remineralisation of the tooth', and is commonly cited as strengthening the tooth enamel, to quote a recent example cited in the Sunday Times dated 29 November 2015 :

Five Cuppas a Day Keep the Dentist Away

Researchers have found that children as young as 4 would benefit from drinking regular cups of tea. Carrie Ruxton, a public health nutritionist and her colleague Tom Bond analysed 49 types of teabags ... to discover their levels of fluoride. The mineral strengthens the enamel coating of the teeth, protecting them from bacteria that causes dental caries. The results are published in the Journal of the British Nutrition Foundation. An excess of fluoride can be damaging, so Ruxton and Bond also examined the total fluoride intake of adults and children concluding that "tea can be consumed safely from the age of 4 years'.

The Sunday Times, Five Cuppas a Day Keep the Dentist Away, 29.11.2015, /9

There are a couple of points made in the Sunday Times article that are worth extrapolating. First the researchers recommend that children under the age of 4 should not consume tea because of the elevated levels of fluoride. Interestingly the research analyst Carrie Ruxton uses the expression '*consumed safely*'. The implication from the report is that fluoride absorption in children younger than 4 is undesirable and detrimental to health. Moreover, it should be noted that the level of fluoride in tea leaves is many times less than the fluoride contained in toothpaste. Furthermore the toxicity of natural and artificial fluoride is a subject of great interest that raises many more questions than answers?

Secondarily, the 'expert' from the British Nutrition Foundation mistakenly claims that: '*the mineral strengthens the enamel coating of the teeth, protecting them from bacteria that causes dental caries*'. To expound, this is not true, fluoride is a 'poison' that by virtue of its toxicity is an anti-microbial. Baneful, this agent disrupts cellular signals both within human and bacterial cultures. From reading the column, one could be quite easily fooled into thinking that fluoride is a 'supplement' that is required organically to strengthen the teeth and as such should be consumed as a part of a healthy diet, e.g. 'Five cuppas a day keeps the dentist away' [unless of course you are 3 years old, have dental fluorosis or elderly with enervated teeth].

The stance propounded by Ruxton that '*the mineral strengthens enamel coating*' is not just wrong, it is a plain fabrication of the evidence! In the words of Fejerskov: '*(hypermineralization)... results in a diminished physical strength of the enamel, and parts of the superficial enamel may break away*'. Fluoride in

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clinical studies is shown to interfere with the proper function of ameloblasts (enamel forming cells) and unimpeded compromises tooth function.

The biological action of hypermineralization leads to the eventual retardation of the tooth's structural integrity, and ultimately induces the development of caries. Irrefutable, the fact that fluorosis has been documented prevalently in fluoridated communities demonstrates that the exposure of fluoride in drinking water is 'harmful' and under European Law EU Drinking Water Directive (98/83/EC) is in fact illegal. Incontrovertible, it can be demonstrably proven that higher fluoridated levels of water are 'unwholesome' and in the longer term lead to prevalence of dental decay and tooth deformation. The actuality that fluoridated communities have higher instances of fluorosis is documented in the latest figures given to the Library House of Commons Report 2013 that stated unambiguously:

'The prevalence of fluorosis is typically 3 – 4% higher in fluoridated areas.'

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment, SN/SC/5689, 2 September 2013, p9

The introduction of fluoride into drinking water is creating a problem that does not exist in non-fluoridated regions. Furthermore the expansion of the rate of fluorosis in 'treated' areas is shown to negatively harm sections of the population. The National Research Council's Report 2006 observes this fact and argues that subsets found within the population may be at particular risk from fluoride poisoning contributing to the development of caries and offers a word of caution:

'As previously noted, it is suspected within the dental research community that the enamel pitting that occurs in severe fluorosis might increase caries risk by reducing the thickness of the protective enamel layer and by allowing food and plaque to become entrapped in enamel defects. The possibility is thus raised that in a community with a water fluoride concentration high enough to produce an appreciable prevalence of severe fluorosis, the specific subset of children who develop this condition might be placed at increased caries risk, independent of the effect of the fluoride itself on the remainder of the population.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Academies, Washington DC, 2006, p100

If we interpret the data with detachment, fluoride appears to be an 'effective' anti-bacterial agent. Its major disadvantage however is that it is seriously undermined by the fact that it is a 'poison' that breaks down the physical solidarity of the tooth. This in the literature is known as the '*fluoride paradox*' to

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use the words of the World Health Organisation's own exposition – and is a pitiful situation that helps to explain to a large extent the conflicting results evident within the data. For children in the UK, 4% of the population, quote-unquote the 'subset' will develop fluorosis in fluoridated regions and be at an increased rate of developing caries. Unscrupulous many of the 'facts' surrounding the actual administration and 'benefits' of fluoride have been unremittingly exaggerated and is a strategy designed to propagate the status quo.

Prolonged exposure to the substance fluoride systematically damages the anatomical structure of the tooth that leads to terminal dental decay. The best option then is to use a natural tooth paste with a strong anti-bacterial agent such as tea tree oil, natural ingredients that have zero effects on the enamel of the tooth and are safe for human consumption. The most relevant and perhaps the lucrative question is what natural bacterial agents work the most effectively against tooth decay and are safe for long term use? Dentistry in the 21st Century will have to answer these pressing questions, as it is only a matter of time before fluoride will be phased out of toothpaste and resigned to history with the other big health scandals of the 20th Century such as asbestos. Incoherent, there is no logical reason why modern day 'medicine' should be funding the systematic ingestion of 'artificial fluoride'. The sensible way to progress is to kill the bacterial residue on the enamel without damaging the osteoblast or cellular composition of the tooth.

To use a crude analogy, fluoride is the 'nuclear option' of dentistry and in the example highlighted can be compared to utilising chemotherapy treatment to kill a bacterial urinary infection. In this illustration it can be said that chemotherapy is a very effective agent and can be successfully employed to neutralise bacteria. The downside however is that the chemical is catastrophic, compromising cell function, and damaging the living tissues, leading potentially to long term disease. In medicine, therefore safer alternatives are adopted such as antibiotics that have the same potent effect of removing contagions from the body and are substantially less toxic.

The same principles can also be applied to fluoride – yes if we want to be pedantic it is an 'anti-bacterial' agent, to pretend otherwise would be dishonest, but as a rhetorical question, why would anyone ever consider using an ingredient that is so toxic and harmful to the human body when there are safer alternatives currently available. More importantly these non-polluting options do not weaken the tooth enamel. The academic position that fluoride is a 'toxin' is amply demonstrated in the National Research Council, and its categorisation of fluorosis of the teeth, a process that is described as an '*adverse health effect*' to quote:

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'One of the functions of tooth enamel is to protect the dentin and, ultimately, the pulp from decay and infection. Severe enamel fluorosis compromises this health-protective function by causing structural damage to the tooth. The damage to teeth caused by severe enamel fluorosis is a toxic effect that the majority of the committee judged to be consistent with prevailing risk assessment definitions of adverse health effects. This view is consistent with the clinical practice of filling enamel pits in patients with severe enamel fluorosis and restoring the affected teeth.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Academies, Washington DC, 2006, p104

A not too helpful definition for the lawful advocacy of fluoridation, the description of 'fluorosis' as an 'adverse health effect' otherwise a 'toxic effect' is non-compatible with the legal interpretation of 'safe'. In the UK, the 3% to 4% of children that go on to develop fluorosis in fluoridated regions is according to the outlined 'prevailing risk assessment' of the American Academy 'an adverse health effect' and is therefore unacceptable! Indisputable, the conclusions gathered from the Research Council indicates the urgent need to appraise water fluoridation schemes throughout Europe.

Further funding into dental healthcare should therefore research the pervasiveness of tooth decay and how it spreads within fluoridated and non-fluoridated communities. This subject is a deeply contested field of expertise in which methodical research is beginning to reveal some unexpected answers. My own evidence gathered on this complex subject on reading a number of medical reports is that the patterns of decay are quite different in fluoridated and non-fluoridated regions. For example, within early research, it is posited that the appearance of caries in fluoridated districts may be prolonged due to the antimicrobial properties of fluoride, in essence the acute poisonous effects of the active ingredient. These claims however have not been tested fully and are contradicted by the World Health Organisation's own figures that statistically show fluoride to be harmful to the teeth [Refer to Appendix 1(b)].

Short term, many of the alleged superficial 'gains' (particularly amongst the subset population that do not brush their teeth) are outweighed by the inconvenient truth that the oral complex within the mouth, otherwise the enamel is compromised through the introduction of fluoride. The net result is that once caries appear on the surface inlet of the tooth, the spread of decay is larger and more prolific. This noticeable differential within the pattern of disease observed within the 'treated' and 'non-treated' populations can be potentially misleading, if not properly reviewed in context to tooth strength and long term damage!

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For example, the tendency to measure the rates of caries as an indicator of the overall condition of the teeth within the vulnerable groups of children can lead to some false conclusions. This is because fundamentally the health implications of fluoride are further likely to present themselves within adult populations. In addition, a more appropriate method of measuring oral hygiene is not the registered 'rates of caries', but is shown to be the actual 'number of missing teeth'. According to the National Research Council Report, fluoride *'increase[s] caries risk by reducing the thickness of the protective enamel layer'* in the words of Levy *'fluorosis... increases the risk of caries because of pitting and loss of the outer enamel'* (Levy 2003, p286).

In plain English, the density or mass of the tooth is systematically weakened through the subjection of fluoride and increases the likelihood of damage to the enamel of the tooth and its related structures. Observing early dental literature reinforces the American Research Council's conclusions and also has implications for oral hygiene for the non-fluoridated population. In this revised model, tooth decay when it occurs naturally if left 'untreated' with fluoride does not erupt across the surface of the tooth. This type of lesion is more consistent with the fluoridated population.

In non-fluoridated groups, the damage to the dentine is discreet, for example, it might appear as a dark spot the size of a 'pin head' on the enamel coating. This is because the general health of the enamel across the tooth is much stronger and more resilient in non-fluoridated populations. However in this example, the decay is more likely to be 'hiding' or occurring under the surface of the tooth, and requires dental intervention, as is found within the medical adverts of the 1950s. Distinct, the pattern of disease is quite specific as the decay eats away silently and unobtrusively at the core of the tooth. This is because the lesion on the edge of the tooth is typically very 'small' or 'understated' and is extremely difficult to clean properly, hence the early use of prophylactic toothbrushes (See Appendix 4: The Early Days). The development of caries is gradual and low profile within the non-fluoridated population. Decay develops tacitly over long periods of time in which the exterior deterioration of the enamel is inconspicuous and will often go undetected.

Methodologically dentists should be trained to recognise variant 'patternations' of decay that are attributed with the distinct symptomatic progression of dental caries in fluoridated and non-fluoridated groups. To summarise, unfluoridated teeth are stronger and more resilient to disease, but once decay has affected the tooth, medical treatment is needed promptly. This is not because the tooth is weaker but because the duration of the decay extends unnoticed for longer periods of time in non-fluoridated teeth and is typically more concealed (smaller).

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Retrogressive, the deterioration appears slight, and the damage to the outer surface is less accentuated (visible) and much harder to maintain or clean with a toothbrush.

Hypothetically children in fluoridated regions who do not brush their teeth according to the pilot studies of the 1960s (funded by the fluoride industry) have less caries (in the short term) compared to the same age group from similar economic backgrounds. Fluoridated children are also more likely to have missing teeth and in addition once dental decay occurs the eruption across the tooth surface is systematic.

In fluoridated regions, the trade off with the putative rates of 'reduced caries' in the population that do not brush their teeth is shown to be at the expense of tooth durability and in the longer term is proven to undermine the strength and quality of teeth. Consequently the true cost of fluoridation is exhibited in the adult population in which the *'development of terminal caries are more severe and the general health and strength of the tooth are considerably weaker'* (Aoba and Fejerskov, 2002, p159).

As a parenthesis, we should note that the diminution of caries in fluoridated populations is still clinically unproven. In addition there are countless studies which substantiate the proposition that fluoridation literally damages teeth. A number of important and independent figures are given in Appendix 1(a), Tables. In these quotients, there are at least 5 prominent reviews that show an inferred rate of tooth decay equated with fluoride treatment.

In addendum the majority of research programmes showing fluoride to minimise decay are not statistically significant and fall outside of the accurate rates of measurement. The preponderance of scientific enquiries into fluoride and its sanative properties cited in medical journals are not neutral and are paid for by industrial interests.

Until very recently, the variable between the anti-bacterial properties of fluoride relative to the damage inflicted upon the tooth was unclear and a subject of great controversy within fluoride research. Amongst academics, this delicate balance was previously referred to as the *'fluoride paradox'* and is now known to be an absurdity that does not exist! Increasingly the mounting evidence within modern odontological studies show that the desecration of the enamel associated with fluoride is much more pronounced than previously thought. Thus fluoride treatments are actually proven to be ineffective and accelerate dental decay leading to the formation of caries. Unequivocally established, the negative effects of fluoride is no longer a matter of speculation and is a paradigm that is proven

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in statistical analysis of rates of dental decay in fluoridated and non-fluoridated regions [See World Health Organisation Comparative Studies (2012) – Appendix 1(b)].

The question of reduced caries equated with fluoride is according to the current figures established as untrue and is plainly refuted in many recent scientific studies (See Dr. John Colquhoun's work cited below). Definitive in a number of separate published papers, the outcome of fluoridation is proven to be bad for teeth and thereby escalates the rates of disease. [For further evidence, please refer to [the] Journal of the Canadian Dental Association 10: 763-765 / United States Journal of Public Health Dentistry 66(2):83-7) / and World Health Organisation Collaborating Centre for Education, Training, and Research in Oral Health, Malmö University Sweden – Appendix Tables 1(a) and 1(b)].

Unchallenged and perspicuous, these recent figures are in direct confutation with the 'medical' research from the 1950s and the early 1960s. Modern findings for example have confirmed the detrimental effects of fluoride on teeth. These studies provide compelling evidence and are published in large scale peer reviewed surveys. Highly redolent, the results denote that the perceived 'benefits' of fluoride's anti-microbial properties are completely offset by the disfigurement of the tooth and related decay associated with fluorosis (the indentation or scarification of the tooth). Uncontested, the treatment of fluoride is shown in repeated studies to be comparatively deficient at protecting the tooth enamel and actually promotes the rapid formation of dental disease. Dr. John Colquhoun, New Zealand's Former Chief Dental Officer's own research into the different rates of caries in fluoridated and non-fluoridated regions further substantiates the argument that fluoridation overall increases the long term incidence of tooth decay. In 1984, he stated:

'...that when any unfluoridated area is compared with a fluoridated area of similar income level, the percentage of children who are free of dental decay is consistently higher in the unfluoridated area.'

William Lea, Science and Environment Section, Water Fluoridation Research Paper, House of Commons Library 93 /121 December 1993, p15

An important research paper made by one of New Zealand's most senior dental experts Dr. John Colquhoun's conclusion is significant within medical research, as the large study suggests the biggest contributory factor to oral hygiene is the amount a child cleans their own teeth. In areas of relative income in which (it is presumed) the rate of brushing is similar, the deleterious outcomes associated with fluoride become much more prominent and indicate a harmful effect.

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Looking at comparative studies of social inequalities potentially disguises positive outcomes that are falsely attributed to fluoride. Comparison for comparison, Dr. Colquhoun's work shows no benefits equated with fluoride in populations of equal economic class and actually suggests that fluoride is non-beneficial for oral hygiene.

The conclusion proffered by New Zealand's leading authority is a patent reversal of everything that contemporary dentistry maintains about fluoride and its perceived benefits. The general findings are in keeping with the controversial though growing acceptance that fluoride is inimical to the overall maintenance of oral health.

This then brings us up to speed with the excellent work of Michael Connett. A distinguished Attorney, he is an established legal expert and a graduate from Philadelphia's law school, Temple University. A clever academic, Attorney Connett in his well researched paper 'Tooth Decay Rates in Fluoridated Versus Non-fluoridated Communities 2012' adds further evidence to the growing debate concerning the problematic effects of fluoride and its negation attributed to tooth cohesion.

Thorough and inclusive, Attorney Connett's research examines the commensurate wisdom of fluoride as a 'preventative treatment'. Detailed, the evidence he submits questions fundamentally the prevailing view that fluoride retards the acceleration of caries within fluoridated populations. His vast and scholarly review of published material is based upon academic and peer reviewed sources. Although, perhaps slightly repetitious (as the same conclusions are found independently over and over again) this section of the report is of paramount importance as it highlights a number of good quality studies that appear from around the world. The paper also questions the accepted wisdom that fluoride as an 'active ingredient' is useful or integral for the maintenance of oral health – a common and pervasive idea that, according to the latest medical evidence, is not true!

(Section 3): Attorney Michael Connett' 'Tooth Decay Rates in Fluoridated Versus Non-Fluoridated Communities 2012'

Historically tooth decay rates throughout the Western world have declined at a steep rate especially over the last 50 years. This same trend is found all over the world irrespective of whether a country fluoridates its water or not. A curious fact, the observation has invited scrutiny into the necessity and effectiveness of water fluoridation and questions accepted convention. To paraphrase Attorney Connett and his article:

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- (1) Fluoride’s alleged benefits for the teeth arises from topical application and not systemic ingestion [A valid interposition on Attorney Connett’s point is that ‘fluoride treatment’ although well established within odontological journals is not proven to be an effective intervention within large scale studies (Please refer to the York Report)].
- (2) Secondly, Attorney Connett draws attention to the puzzling fact – to date there has never been a ‘randomized controlled trial’ that has scientifically demonstrated the benefits of water fluoridation.

By Attorney Michael Connett, Tooth Decay Rates in Fluoridated Versus Non-Fluoridated Communities, Fluoride Action Network, August 2012, [Introduction]

The need therefore for a serious reappraisal of water fluoridation and its contested benefits is further underscored by a series of large-scale studies that have sharply contradicted the findings of earlier work. Although resolutely accepted within medicine, the landmark pilot studies that were previously funded by the aluminium industry are problematic. The manufacturer’s own influential report: ‘The Role of Fluoride in Public Health, The Soundness of Fluoridation of Communal Water Supplies, Cincinnati 1963’ dictated public policy and was funded by the fluoride industry (See below):

Cincinnati Report 1963 Funded by Corporate Manufacturing

Aluminium Company of America (ACCOA)
Aluminium Company of Canada
Dupont (Chemical Manufacturer)
Kaiser Aluminium
Reynolds Metals
US Steel

Looking objectively at the bludgeoning history of corporate health scandals, there is a general and uneasy pattern. This is that when the industrial sector are left quietly alone to fund their own studies, whether it be asbestos, smoking or Mad Cow Disease (BSE), the conglomerate giants always for some reason fail to get it right and invariably harm the general public. Consequently the legitimate question that remains unanswered is: Can we afford to trust what we are being told about fluoride? Let’s then take a fresh look at the evidence outside of company interference, and examine some independent conclusions, documented in some of the most prodigious medical journals in the world, beginning first with research from the United States:

(2.1) United States and Global Fluoride Research

More recent and objective studies from the United States, Australia, Canada, and New Zealand have repeatedly been unable to detect significant differences in

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tooth decay, when using the 'Decayed, Missing or Filled Teeth (DMFT)' measure of decay. As noted by Dr. Mark Diesendorf:

'Results of recent large-scale studies in at least three countries show that, when similar communities are compared and the traditional DMFT index of dental caries is used, there is no detectable difference in caries prevalence. This has been demonstrated for schoolchildren in the major cities of New Zealand, Australia, the US and elsewhere.'

Diesendorf M, et al., New Evidence on Fluoridation.
Australian and New Zealand Journal of Public Health, 1997, 21: 187-190

Proven in repeated studies tooth decay and levels of fluoride are not shown to be connected. Amongst researchers, it has been recognised that because of the difficulty of detecting significant differences in tooth decay when using DMFT (Decayed, Missing or Filled Teeth) most modern studies on fluoridation now adopt the more sensitive measure relating to tooth deterioration called the 'Decayed, Missing or Filled Tooth Surfaces' (DMFS). This as I mentioned in my introduction is a much more effective measurement, as fluoride compromises tooth strength and can manifest as missing teeth or actual damage to the tooth surface.

However, even where modern studies detect differences in DMFS between fluoridated and non-fluoridated areas, the comparisons are generally trivial. The growing opinion is outlined in Professor Hardy Limeback's (PhD, DDS) studies into fluoride and carries formation. For further information that questions the convention fluoride reduces decay, please refer back to Dr Limeback's medical paper dated 1999 [A Re-Examination of the Pre-Eruptive and Post-Eruptive Mechanism of the Anti-Caries Effects of Fluoride: Is There Any Anti-Caries Benefit from Swallowing Fluoride? Community Dent. Oral Epidemiol. 27(1): 62-71].

The viewpoint with regards to fluoride and its apparent lack of advantages are predominantly evident within American medical literature. In the largest dental study, for example in the United States, the average difference in tooth decay in non-fluoridated is recorded at just 0.6% of the tooth surfaces, which is less than 1% of the 100% tooth surfaces in a child's mouth (Brunelle & Carlos 1990).

Studies from Australia have found even less flattering results, with one large trial finding no difference in DMFS (Decayed, Missing or Filled Tooth Surfaces), and another study detecting a slight difference of just 0.12% to 0.3% of the total calculated tooth surface (Spencer 1996). Imperceptible, the differences are so

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small that there is no common index within dentistry that can measure these rates accurately. As noted in one recent review:

‘For the past 50 years, community water fluoridation has been considered the most cost-effective measure for the control of caries at the community level. However, it is now accepted that systemic fluoride plays a limited role in caries prevention. Several epidemiologic studies conducted in fluoridated and non-fluoridated communities clearly indicated that community water fluoridation may be unnecessary for caries prevention, particularly in the industrialized countries where the caries level has become low’.

Pizzo G, Piscopo MR, Pizzo I, Giuliana G., Community Water Fluoridation and Caries Prevention: a Critical Review, Clinical Oral Investigations, 2007, 11(3):189-93

The report questions the accepted wisdom of fluoridation to control tooth decay, and is a concern that is shown in other more recent medical research. Detailed discussions of some of the modern day studies examining the issues of fluoridation in contrast to non-fluoridated regions include analysis by the researchers: Levy (2009); Armfield & Spencer (2004); Brunelle & Carlos (1990) and Yiamouyiannis (1990). The consensus amongst these researchers is reflected in Dr. Warren’s systematic study recorded in the Journal of Public Health Dentistry:

‘These findings suggest that achieving a caries-free status may have relatively little to do with fluoride intake, while fluorosis is clearly more dependent on fluoride intake’.

Warren J, et al., Considerations on Optimal Fluoride Intake Using Dental Fluorosis and Dental Caries Outcomes: A Longitudinal Study. Journal of Public Health Dentistry, 2009, 69:111-15.

In other words, fluoride, as a vehicle used to propagate healthy teeth and gums associated with a reduction in caries, has no bearing with the overall consumption of fluoride. Standard metric measurements however show the opposite to be true, the damage to dental surface via fluorosis and the depletion of the tooth enamel is equated with the introduction of fluoride. These findings are once again backed up in Dr. Warren’s Longitudinal Iowa Fluoride Study:

‘This study reports changes in non-cavitated tooth surface diagnoses after a 4-year period... No fluoride, socioeconomic status or beverage variables were significantly associated with lesion progression’.

Warren JJ, Levy SM, Broffitt B, Kanellis MJ, Longitudinal Study of Non-Cavitated Carious Lesion Progression in the Primary Dentition, Journal of Public Health Dentistry, 2006, 66(2):83-7

In Dr. Warren and Levy’s well funded study in Iowa, the conclusion not only calls attention to the fact that ‘no fluoride...variables’ is thought to be associated with

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lesion progression’, but also importantly socio-economic status does not play a significant role. The point is of course relevant to Wakefield Council, as fluoride according to the Journal of Public Health Dentistry is not commonly thought to reduce social inequalities in dental hygiene. To belabour, if Wakefield is really interested in preventing wholesale tooth decay, spend the theoretical money on instructing the population to clean their teeth three times a day with a non-fluoridated toothpaste. Change the public perception of the target population and we would see a massive reduction in the spread of tooth decay.

Biostatistical studies therefore show no apparent correlation between fluoride intake relative to the development of caries on the first molars. The same findings are also beginning to emerge in large cross-sectional studies that have been conducted throughout the United States. In a statistical paper compiled by Dr. Hendryx, the researcher found no compelling evidence that water fluoridation significantly improved the health of the teeth or prevented the development of caries. Within this investigation, socio-economic features did not present within the research conducted, however, Dr. Hendryx did make a distinction between urban and rural areas for analytical purposes, the report concluded:

‘For children’s dental health measures, it was found that fluoridation rates were not significantly related to the measures of either caries or overall condition of the teeth for urban or rural areas’.

Hendryx M, et al., Water Fluoridation and Dental Health Indicators in Rural and Urban Areas of the United States, West Virginia Rural Health Research Center, 2011

In yet another longitudinal study this time carried out by Dr. Chankanka, the same deductions, emphasizing that water fluoridation is not a significant factor attributed to the general health of oral hygiene. In this influential paper (Longitudinal Associations between Children’s Dental Caries and Risk Factors, 2011) the most important variable identified with the onset of fewer cavities is correlated with the frequency of tooth brushing. On the issue of fluoride brushing frequency, Dr. Chankanka in his cross examination stated:

‘Greater toothbrushing frequently was significantly associated with fewer new non-cavitated caries, while gender, exam variable, and composite water level were not significantly associated with new non-cavitated caries. . . . Gender, socioeconomic status, tooth brushing frequency, and composite water fluoride level were not significantly associated with new cavitated caries’.

Chankanka O, et al., Longitudinal Associations between Children’s Dental Caries and Risk Factors, Journal of Public Health Dentistry, 2011, 71(4):289-300 [See Discussion of Study]

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Published in the Journal of Public Health Dentistry, this is yet another excellent study that has not identified socio-economic status with tooth decay, and draws attention to tooth brushing frequently as a significant factor in oral hygiene. The suggestion is that dental programs should focus on oral hygiene, rather than fluoridation. Spending public money on advertising good dental practice provably reduces the incidents of tooth decay and in the long term is cheaper than 'treating' the water supply. In developmental studies of teeth within young children up to the age of 5, similar findings are recorded in the rates of tooth decay that do not appear to drop with fluoridation and more significantly the rates of childhood fluorosis increase, to quote:

'This study assessed the relationship between dental caries and fluorosis at varying fluoride levels in drinking water. Methods: Subjects were followed from birth with questionnaires every 3-4 months to gather information on fluoride intake. 420 study subjects received dental examinations at age 5 on primary teeth and at age 9 on early-erupting permanent teeth... Conclusions: Fluorosis prevalence increased significantly with higher water fluoride levels; however, caries prevalence did not decline significantly.'

Hong L, Levy S, Warren J, Broffit B, Dental Caries and Fluorosis in Relation to Water Fluoride Levels, ADEA/AADR/CADR Conference, Orlando Florida, March 8-11, 2006

This conclusion is born out in many more methodological tests and suggests that if the percentage of caries did not readily decline in contrast to a sharp increase in fluorosis, then the outcome indicates that significant damage to teeth occurs as a result of fluoridation. Studies into ethnicity have also found the same findings that early childhood caries are not primarily affected by levels of fluoride in drinking water and again provides excellent evidence from the Journal of Public Health Dentistry that fluoridation is not required for dental health, Dr. Shiboski writes:

'Water fluoridation status of the children's area of residence did not have a significant effect on Early Childhood Caries (ECC) at the 0.1 level of significance in the unadjusted logistic regression analysis, nor was it found to be a confounder of the effect of race/ethnicity on ECC prevalence in the multivariable model.'

Shiboski CH, et al., The Association of Early Childhood Caries and Race/Ethnicity among California Preschool Children, Journal of Public Health Dentistry, 2003, 63(1):38-46

The difference then between early childhood caries (ECC) when unadjusted amount to just 0.1, a variance that is so small it cannot be detected. Although unstated, the implications from this particular study, actually suggests that when the rates are readjusted children from unfluoridated regions have lower

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incidents of tooth decay. In another fascinating study focusing on the prevalence of caries in paediatric medicine, the author Dr. Barnes again argues that fluoride status does not appear to be a main variable in the development of early tooth decay, and notes:

'Children attending centers showed no significant differences [in baby bottle tooth decay] based on fluoride status for the total sample or other variables'

Barnes GP, et al., Ethnicity, Location, Age, and Fluoridation Factors in Baby Bottle Tooth Decay and Caries Prevalence of Head Start Children, Public Health Reports, 1992, 107:167-73

An isolated study, this paper is one of a few that is conducted into very young infants. Important, the suggestion within this subpopulation is that the development of tooth decay is not related to fluoride dosage. Perhaps even more convincingly a large systematic study completed by the prodigious National Institute of Dental Research (NIDR) was unable to find statistical evidence of any difference between rates of decay in fluoridated and non-fluoridated areas. A relatively early study dating from 1989, the magnitude of these conclusions appears to have been largely ignored by the academic community. Their conclusions, although surprising however, are in keeping with findings from all over the United States, principally that:

'An analysis of national survey data collected by the National Institute of Dental Research (NIDR) concludes that children who live in areas of the U.S. where the water supplies are fluoridated have tooth decay rates nearly identical with those who live in non-fluoridated areas.'

Hileman, B., New Studies Cast Doubt on Fluoridation Benefits,
Chemical & Engineering News, May 8 1989

Another fairly early study within the literature also dated from 1989 appeared in the 'American Journal of Physical Anthropology' and concluded that there existed no appreciable difference between the incidents of caries in 'optimal' and 'suboptimal' fluoridated water. The observations made by the 'Journal of Physical Anthropology' questions the fundamental convention why dentistry still insists that water is 'optimal' when it has been fluoridated!

To repeat, there is no evidence to support this thesis. Dr. Hildebolt's sanitised distinctions describing water in his research programme as 'optimally fluoridated' in contrast to 'suboptimally fluoridated' makes no sense within medicine and unfairly implies that fluoridation is 'advantageous'. The whole intention of completing a study into 'caries prevalence' in geochemical regions of Missouri is to find out if indeed 'fluoridated water' is 'optimal'.

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Outside of Dr. Hildebolt's jaundiced use of language, the researcher did manage to make the following pertinent observations:

'We found that caries prevalences do vary between the geochemical regions of the state. In the total sample, however, there were no significant differences between those children drinking optimally fluoridated water and those drinking suboptimally fluoridated water.'

Hildebolt CF, et al., Caries Prevalence's among Geochemical Regions of Missouri, American Journal of Physical Anthropology, 1989, 78:79-92

In criticism, Dr. Hildebolt disproved his own thesis and inadvertently showed that 'fluoridated' water is 'non-optimum' because it is 'unclean'. In contrast it can be said, that by definition 'non-fluoridated' water is 'optimum' because the supply is fresh and without contamination from poisonous chemicals.

To summarise, the Attorney Michael Connett and his wide ranging work into 'Tooth Decay Rates in Fluoridated Versus Non-Fluoridated Communities' is indubitably clear! Close examination of recent data suggests there are no proven benefits observed within oral hygiene linked to the fluoridation of water. This perspective although incredible in its implications is not unique to the United States but is found universally in research throughout the world! Let's then explore similar studies in Canada and South America and look at the differences between fluoridated and non-fluoridated regions and their surprising conclusions:

(2.2) Canada and South America – Comparison of Fluoridated Regions

Unexpected the Canadian studies have found the opposite argument to be true... Rather than there being 'no difference' in dental hygiene between fluoridated and non-fluoridated regions, their own data shows that fluoridation may actually injure health. Once again this paper comes from a respected peer reviewed journal: the 'Journal of Canadian Dental Association' to quote:

'Survey results in British Columbia with only 11 per cent of the population using fluoridated water, show lower average DMFT rates (decayed, missing or filled teeth) than provinces with 40-70 percent of the population drinking fluoridated water. How does one explain this?... School districts recently reporting the highest caries free rates were totally unfluoridated.'

Gray, AS. (1987), Fluoridation: Time for a New Base Line? Journal of the Canadian Dental Association, 1987, 10: 763-765

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Exceeding expectation, the large Canadian Study establishes that opposite to belief the school districts that use unfluoridated water have better oral hygiene. This same argument is also shared by Dr. Colquhoun results in the New Zealand trials that likewise came to the same unsettling conclusions, please refer to section 2.3). Critical, the findings within Canada are also cited in Professor Dr. Hardy Limeback's (PhD., DDS) own pivotal research in which the academic has gone on public record and stated that...

'Those who continue to promote fluoride are working with data that is fifty years old and questionable at best. The dentists have absolutely no training in toxicity... Your well intentioned dentist is simply following fifty years of misinformation from public health and dental association.'

Professor Dr Hardy Limeback, Head of the Department of Preventive Dentistry for the University of Toronto and President of the Canadian Association for Dental Research

These are very powerful words from a world leading dentist – according to Professor Limeback, it is not so much that the dentists were 'wrong' but rather they were 'lied to' and 'mislead'. Completely lacking public reassurance, the controversial perspectives concerning fluoridation as a pre-fabrication is a prevalent viewpoint that comes up a surprising number of times within the scientific literature. In many cases these claims are difficult to reconcile, as these refutations are typically made by world renowned experts!

Dr. Limeback's own research goes into detail and actually lists the adverse effects of fluoridation. Very clear and explicit, the Professor argues outright that the substance is dangerous for human health and its ingestion. In his work he cites the following main problems with drinking fluoridated water:

- (1) Cancer
- (2) Fluorosis
- (3) Bone Fractures
- (4) Thyroid Problems
- (5) Neurological Damage

These symptoms are essentially the same problems that the American National Research Council registered and is a part of the same pattern of side-effects listed within clinical assays. To emphasize Professor Dr. Hardy Limeback (PhD, DDS) is a top academic within dental research. He holds a Chair at the University of Toronto and is the Head of Preventive Dentistry, a senior professor with a PhD in Biochemistry, he has stated:

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‘There are numerous modern studies to show that there no longer is a difference in dental decay rates between fluoridated and non-fluoridated areas, the most recent one in Australia (Armfield & Spencer, 2004 Community Dental Oral Epidemiology. 32:283-96)...’

Professor Dr. Hardy Limeback (PhD, DDS), University of Toronto, From Evidence Presented in the Southampton Geraldine Milner Case, Letter of Evidence Abridged Statement, 2011

Scathing in his analysis, Limeback maintains that fluoridation within public water systems is unlawful and condemns the policy has unethical, he argues:

‘Fluoridation is an ineffective and harmful public health policy. In my opinion, the evidence that fluoridation is more harmful than beneficial is now overwhelming and policy makers who avoid thoroughly reviewing recent data before introducing new fluoridation schemes do so at risk of future litigation’.

Professor Dr. Hardy Limeback (PhD, DDS), University of Toronto, From Evidence Presented in the Southampton Geraldine Milner Case, Letter of Evidence Abridged Statement, 2011

Wakefield Council, please take note! With respect to picking up anomalous data, the Canadians in their encompassing dental research program have demonstrated contrary to public and medical expectation that fluoridated regions have higher rates of decay. Additionally in the British Columbia Study, their results confirmed that the non-fluoridated regions in Canada actually have the best oral health. Similar findings within Mexico cross statistical analysis shows that fluoride exposure in water appears to have no appreciable effects on caries, to quote Dr. Vallejos and Sanchez:

‘We found no significant relationship between fluoride exposure and dental caries experience in the permanent dentition’.

Vallejos-Sanchez AA, et al., Cross-Sectional Analysis of Dental Caries in Children with Mixed Dentition, ADEA/AADR/CADR Conference, Orlando Florida, March 8-11, 2006

Repeated also scientifically within the Mexican Study, Brazil also noted zero improvement in differences in DMFT (decayed, missing or filled teeth) in fluoridated and non-fluoridated areas. Very clear these results reported are found in 12 year old children, to quote:

‘There was no statistically significant difference between DMFT (decayed, missing or filled teeth) in municipalities of the same size, regardless of the presence or absence of fluoride in the water supply...’

Sales-Peres SH, Bastos JR., An Epidemiological Profile of Dental Caries in 12-year-old Children Residing in Cities with and without Fluoridated Water Supply in the Central Western Area of the State of Sao Paulo Brazil, Cadernos de SaudePublica, 18: 1281-8, 2002

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A comprehensive study, the Brazilian model of decay show that no appreciable differences exist between fluoridated and non-fluoridated regions. Similar results are also documented in Australia and New Zealand, and are reviewed in the short summaries, below:

(2.3) Australian and New Zealand Studies and their Findings into Fluoridation

Virtually identical, the equivalent findings are duplicated not just within the United States, Canada and South American Studies, but are also corroborated in the research of other countries. Scientific, the corresponding academic position that fluoridation is harmful is evident within odontological research and is demonstrated to exist both in Australia and New Zealand. For example in the New Zealand studies, the eminent author Dr. Colquhoun the Dental Officer for Auckland showed the widespread contradictions surrounding fluoride research. Unsatisfied with the data in 1987, he noted officially in his paper ‘Child Dental Health Differences in New Zealand’, the inconsistencies evident within the fluoridated figures and stated:

‘Recent studies and reports agree that the differences in dental decay prevalence between fluoridated and non-fluoridated areas in New Zealand are small. For 12- and 13-year old children nationally the percentages who were caries-free in each kind of area differed by only 1 or 2 per cent, and were often higher in the non-fluoridated part of a health district’.

Colquhoun, J., Child Dental Health Differences in New Zealand,
Community Health Studies, 6: 85-90, 1987

This is another convincing study completed by a senior expert – and in terms of his general findings, is of great concern and indicates that fluoride may actually compromise dental health! On this issue, Dr. Colquhoun is not a minority and there have been several prominent studies that have called attention to the efficacy of fluoride as a ‘medical intervention’.

The Former Chief Dental Officer Colquhoun’s thesis on social class has illustrated that variables or markers can have an impact on dental health. On this position the studies from Auckland suggest that once confounding factors such as economic disparity are taken into consideration, the dental health of the general population is actually better in regions without fluoridation.

Incongruous, the figures of tooth decay and its decline in non-fluoridated districts appear in several prominent studies and poses the salient question: Is Fluoride Harming our Teeth? Dr Coloquhoun’s work questions the existing dogma within orthodontic practice that fluoride is ‘beneficial’. In both fluoridated and unfluoridated regions, dental health is improving, and a review of the new

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data indicates that fluoride may be actually contributing to a slight increase in decay, to quote the Community Dentistry and Oral Epidemiology:

'In this study in oral epidemiology, officially collected statistics are presented which show that, 15 yr after fluoridation commenced in Auckland, New Zealand, there was still a significant correlation between dental health of children and their social class. They also show that treatment levels have continued to decline in both fluoridated and unfluoridated areas, and are related to social class factors rather than to the presence or absence of water fluoridation... When the socioeconomic variable is allowed for, dental health appears to be better in the unfluoridated areas.'

Colquhoun J., Influence of Social Class and Fluoridation on Child Dental Health, Community Dentistry and Oral Epidemiology, 13:37-41, 1985

As is noted in the introduction to this section, there have been many cross sectional studies, in which the general oral health of populations within the 'Developed World' has continued to improve irrespective of fluoridation. Extremely clear in the research of Dr. Coloquhoun, the implementation of fluoride as a 'health initiative' actually impedes social inequalities, because dental hygiene is surpassed in non-fluoridated regions. Identical, the same observations that fluoridation increases decay is a position that is found also in Europe (See Next Section 2.4).

Explicit the EU results are not unique and are evident in a large selection of scholarly articles peer reviewed in the Australian Dental Journals. Encompassing a number of wide ranging studies, the Australian outcomes similarly show that fluoridation is not indexed linked to the rate of caries and is a conclusion that remains consistent throughout published fieldwork. For example, in the highly respected journal 'Community Dentistry & Oral Epidemiology', the review article examines the comparison found between fluoridated tap water and fresh water on the rates of cavities. Dr. Armfield and Spencer quoting from their own studies note the lack of correlation and appear slightly perplexed with their own findings, they note:

'A less unexpected result of this study, given the findings for the deciduous dentition, was the lack of a significant relationship between consumption of non-public water and caries experience in the permanent dentition across any of the differing conditions of access to fluoridated tap water.'

Armfield JM, Spencer AJ, Consumption of Non-public Water: Implications for Children's Caries Experience, Community Dentistry & Oral Epidemiology, 32:283-296, 2004

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Uncontested, the results from Dr. Armfield and Spencer show that there is no difference in dental decay rates between fluoridated and non-fluoridated areas. Furthermore recent water fluoridation cessation studies show that dental fluorosis (a mottling of the enamel caused by fluoride) declines, but counter to received wisdom there is no corresponding increase in dental decay. These findings were recorded in 2001 by Dr. Maupome, in the review journal 'Community Dental Oral Epidemiology 29: 37-47'. Unanimous, the conclusions from dental research in Australia and New Zealand are visibly straight forward fluoride does not impede decay and may actually contribute to tooth damage... Let's now look at a few resounding examples found throughout Europe that once again questions the common presumption that fluoridation is 'beneficial'...

(2.4)Europe – Low Rates of Caries Versus the Introduction of Fluoride

Throughout Europe, dental health compared to the rest of the world is excellent. The findings are remarkably similar to the States, Australia and New Zealand – in which there exists little or virtually no difference between regions that fluoridate and do not fluoridate in terms of dental healthcare. In yet another fairly sizable study in Germany, the main contributory factor that appears to impact dental wellbeing is not fluoridation but instead socio-demographic factors, Dr. Steinmeyer in his summaries comments upon the earlier work of the dental researcher Einwag, to quote:

'The results of the dental examinations of 9,555 pupils (6 or 7 years old) of the first classes of all 63 primary schools in the Landkreis Mayen-Koblenz from 5 years are compared to the fluoride content of the drinking water. The data show no obvious correlation between dental health and fluoride concentration for any of the dental health parameters investigated. However, in spite of the low geographic resolution of social parameters, there was a notable connection between dental health status and socio-demographic indicators for the respective region. DISCUSSION: 30 years after the study by Einwag in the same region, the natural fluoride content of drinking water either had no influence on dental health at all, or this influence is so diminutive that it is exceeded by far by socio-demographic factors.'

Steinmeyer R, Influence of Natural Fluoride Concentration in Drinking Water on Dental Health of First Class Pupils in an Area with Enhanced Fluoride Content at the Beginning of the 21st Century, Gesundheitswesen, 73(8-9):483-90, 2011

Although Dr. Steinmeyer failed to outline the differences within the makeup of the social-demographic groups, the implications for the conclusion of the analysis are important. In this piece of work, fluoride yet again is thought not to be a factor that is attributed to dental health. Compatible with other field studies, the 'diminutive' results of fluoride found within Germany are not isolated examples

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but are scientifically repeated throughout many cross-sectional surveys. Similar conclusions are also reported this time in a longitudinal study coordinated in Flanders, to quote the research of Dr. Komarek:

'A Bayesian survival analysis is presented to examine the effect of fluoride-intake on the time to caries development of the permanent first molars in children between 7 and 12 years of age using a longitudinal study conducted in Flanders... Our analysis shows no convincing effect of fluoride-intake on caries development.'

Komarek A, et al., A Bayesian Analysis of Multivariate Doubly-Interval-Censored Dental Data, *Biostatistics* 6:145-55, 2005

A significant result, the Flanders Study showed 'no convincing effect of fluoride intake on caries development'. Scientifically replicated, the same corollary is reaffirmed in Ireland, in which the author Dr. Harding suggests a slightly negative effect associated with fluoride and the evidence of tooth erosion. A fairly common trend, the results that fluoride can actually harm teeth are found in a surprising number of prominent reviews. This report looks at 5 year old Irish school children and is a pilot study conducted by the Community Dental Health Organisation, to quote:

'In lifetime residents of fluoridated areas 47% had evidence of erosion; in 21% erosion had progressed to the dentine or pulp. The corresponding figures in non-fluoridated areas were 43% and 21% respectively... Levels in fluoridated and non-fluoridated areas were similar.'

Harding MA, et al., Dental Erosion in 5-year-old Irish School Children and Associated Factors: A Pilot Study, *Community Dental Health*, 20(3):165-70, 2003

Rather tiresomely (yawn!), Finland also noted similar figures or there of a lack of evidence that fluoridation schemes contribute positively to the prevention of caries. This is yet another large longitudinal study that is obtained from data issued from public dental records, Dr. Seppa concludes:

'Even a longitudinal approach did not reveal a lower caries occurrence in the fluoridated than in the low-fluoride reference community.'

Seppa L. et al., Caries Occurrence in a Fluoridated and a Non-Fluoridated Town in Finland: A Retrospective Study Using Longitudinal Data from Public Dental Records, *Caries Research*, 36: 308-314, 2002

The pattern of superior dental health is found particularly in Europe, and is systematically evidenced throughout non-fluoridated areas within the member states. Unequivocal when fluoridated regions of the rest of the world are compared with non-fluoridated regions in Europe, although the statistical

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margins within both groups are barely perceptible, the averages from the figures are clear and suggest that fluoridation poses a slight or increased risk for the frequency of tooth decay [See Appendix 1(b): Table Index].

According to Appendix 1(b), the World Health Organisation's published results in 2012 is taken from perhaps the largest comparative database that has ever been compiled on tooth decay in non-fluoridated regions and originates from the United Nations own results from the Centre of Education, Training, and Research in Oral Health, Malmö University, Sweden.

(2.5) The Middle East – Comparative Study of Oral Hygiene (The Iran Trial)

At the risk of sounding repetitive in a study published in 2006, covering 3 districts in Iran in the sub-population 6 and 9 year olds, identical patterns of caries frequency were observed in the non-fluoridated population. Quite unexpectedly, the results actually suggested a lack of a positive effect equated with fluoride. Dr. Meyer and Lueckel in the journal 'Community Dentistry and Oral Epidemiology' reported the unanticipated conclusions with a degree of surprise:

'In the present study, fluoridated water did not seem to have a positive effect on dental health, as it might have been expected in a community with the respective caries prevalence.'

Meyer-Lueckel H, et al., Caries and Fluorosis in 6 and 9-year-old Children Residing in Three Communities in Iran, Community Dentistry and Oral Epidemiology, 34:63-70, 2006

In the Iranian study, the expectation that fluoride reduces caries is openly stated – a predetermination that is not evident within the statistical figures. The prediction of finding a decrease within the rates of caries in fluoridated regions is not based upon published medical science, but is formulated primarily upon to borrow the words of Professor Limeback '*misinformation from public health and dental associations*'. The 'best evidence' to date, according to the World Health Organisation's vast database 2012, is that fluoridation poses an increased risk of decay and undermines tooth security! [Refer to Appendix 1(b)].

There is then a sequence of negative results that questions the rationale of fluoridation, and these findings are reproduced throughout comparative research evident across the world. Repeated the figures demonstrate an inherent problem with fluoride and is a conclusion that appears with surprising frequency! Undeniable, the documented results presented within this 'snapshot' or short survey of studies are not just 'blips' on the vast data landscape, but involve systematic programs of research upon large groups of people and concern whole populations. Once again the question of fluoridation and its detrimental impact

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on teeth is highlighted within dental literature and is universally ignored throughout medical practice!

(2.6) Conclusions – Comparative Studies on Fluoride

In this selection of peer reviewed articles previously examined, there are a number of wholesale studies that prove fluoride is actually a harmful substance. The primary evidence for this assertion is found in the World Health Organisation's own figures. Additionally much of the printed data tends to reduce the negative role of fluoride, through bias and mitigates important conclusions found within the majority of clinical studies. In many of these scientific trials, we see evidence of gross generalisations or common conclusions that downplay existing problems within the fluoride data.

In study after study, we can read *'there is no noticeable difference'...* *'there is little difference between the effects of'...* or alternatively the *'results were unexpected'...* The observations in each of these trials may prove to be true, but if 19 studies out of 20 are showing that the fluoridated population have worst teeth – the conclusion *'there is little or no difference'* becomes meaningless and is actually helping to mask results that are fundamentally deceptive. Problematic, the language itself becomes a major obstacle to finding the truth and inadvertently is assisting to cover the potentially terrible effects of fluoride.

An impediment to critical research, if dentists are hypothetically taught that fluoride unquestionably works, and their own data contradicts these results – then by proxy the anomalous figures will have repercussions on their own work. In this scenario, differences within the non-fluoridated groups are more likely to be cautiously understated, hence generalised statements that record *'there is little difference between the effects of...'* rather than for example... 'fluoride as a causative factor impedes the general health of teeth'.

A fairly common practice, the tendency within healthcare is not to question the conventional acceptance of fluoride as a 'treatment'. The unwritten 'rule' when the data fails to match up to latent expectation is to presuppose that the data is simply 'wrong', or that there are 'confounding statistical errors'. It is evident to this author, that the position is fundamentally flawed!

In countless examples, the 'results' of fluoridation and its favourable acceptance has over the years been peer reviewed and set in stone (a posture published and paid for by the manufacturers of fluoride). Inviolable, the judgement of fluoride's reputation is evident upon the investigation of complex statistical figures – an interpretation that for the most part is a self-regulating house of cards.

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Unpredictable, it seems that these cards are always propped up by a reoccurring margin of error. In this discourse centred upon conformity, scientists are for the most part finding in the data what they expect to see. In this scenario, the 1% is dismissed as an 'atypical result' and is commonly projected as a 'random error'. To reiterate, there is hardly ever a presumption that the contradictions found within the figures might be systemic and prove fluoride to be a harmful agent. The evidence obtained from the World Health Organisation's own figures 2012 indicates that the margin of error weighs heavily against fluoride [Refer to Appendix 1(b)].

Similarly, we find prejudicial viewpoints are often expressed within the scientific jargon, for example the description that fluoride is a '*treatment*' (a definition that is based upon the false understanding that fluoride is a 'medicine' or has a 'therapeutic' effect). Again, generalisations such as '*optimum*' and '*suboptimum fluoride*' are extremely problematic and are used in far too many studies reviewing the effects of fluoride. These are not empirical terms and colour the perception or conclusions of the analysis.

Ubiquitous, the downgrading of the problem of fluoride however is just the tip of the proverbial iceberg, and is not good science! It can be summarised that fluoride is like the emperor without any clothes. In this metaphor, it is the NHS or Public Health England that is funding the 'emperor'. Endemic within the dental healthcare system, '*unexpected results*' and '*minor deviations*' are progressively evident within the fluoride data and are being disregarded, ignored or overlooked – in the words of the York Review '*corrected*'. And this then is the real problem... We need to go back to the studies and find out exactly what many of these '*no noticeable differences*' are, and reappraise systematically what the figures actually entail!

If we look at the World Health Organisation's database on fluoridated and non-fluoridated regions (2012), the negligible differentials between the comparative figures actually indicate a problem with fluoride. Furthermore the results demonstrate conclusively that fluoride has a harmful effect on the dental hygiene of the population [Refer to Appendix 1(b)].

Unknown, the real scale of fluoride and its contamination is hidden or concealed within the medical literature, from which the margin of error is hardly ever published and only appears in the statistical data. Extremely troubling, there are listed at least 5 major studies that have shown the injurious effects of fluoride upon large community groups within fluoridated regions – and are cited in the table below (It is likely that many more exist)!

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Major Peer Reviewed Papers that Show the Damaging Effects of Fluoridation within Controlled Study Groups

<u>Country</u>	<u>Studies / Relevant Periodical</u>
Canada (British Columbia)	Journal of the Canadian Association
Unite States (Iowa)	Journal of Public Health Dentistry
New Zealand	Community Health Studies
Ireland	Community Dental Health
Iran	Community Dentistry and Oral Epidemiology

(Section 4): National Research Council – Proof of the Toxicity of Fluoride, a Short Summary of the Findings of the American National Academies in Combination with the Board on Environmental Studies and Toxicology

National Research Council's Report Exoskeleton

As shown throughout the medical literature, fluorosis of the teeth is a harmful effect of fluoride poisoning and is also linked to changes in the 'exoskeleton', including skeletal-fluorosis. In the National Research Council's Report, the authors note that fluoride is readily absorbed into the human bones and remodels the architecture of the body. Possessing severe toxicological effects, fluoride is not effectively excreted and leads to permanent damage, to quote:

'A key correlate to the first prediction is that the concentration of fluoride in bone does not decrease with reduced remodeling rates. Thus, it appears that fluoride enters the bone compartment easily, correlating with bone cell activity, but that it leaves the bone compartment slowly. The model assumes that efflux occurs by bone remodeling and that resorption is reduced at high concentrations of fluoride because of hydroxyapatite solubility [e.g. the inorganic mineral constituent of the tooth enamel and bone]. Hence, it is reasonable that 99% of the fluoride in humans resides in bone and the whole body half-life, once in bone, is approximately 20 years...

...It has been known for many years that fluoride exposure can change bone quality. Franke et al. (1975) published a study indicating that industrial fluoride exposure altered hydroxyapatite crystal size and shape... the general conclusion is that, although there may be an increase in skeletal density, there is no consistent increase in bone strength. A carefully performed comparison study between the effects of fluoride (2 mg/kg/day) and alendronate in minipigs likely points to the true effect: "in bone with higher volume, there was less strength per

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unit volume, that is, ...there was a deterioration in bone quality” (Lafage et al. 1995):

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, pp108-109

According to Dr. Franke's paper, the increase in bone density is a by-product of the toxic reaction and leads to bone damage through the effects of fluoride. The scientist Dr. Lafage also noticed the same process associated with fluoride exposure, in which although bone density appreciably increased, the overall strength of the bone decreased proportionally. The same type of biological indicators are also evident with 'fluorosis', in which 'hypermineralization' of teeth results in diminished strength of the enamel (Fejerskov et al., 1990, p694). This biological process is often mistakenly referred to by dentists as 'remineralisation', a medical label that is 'incorrect'. The proposition that 'recalcification' technically 'hypermineralization' strengthens the tooth is also another medical myth – a persistent idea that has been propagated fallaciously by the fluoride industry and has no basis in fact!

In relation to the exoskeletal structure, the thickening of the tooth ultimately leads to the denticulation becoming 'porous'. Terminal, the stages of increased 'porosity' gradually cause the degradation and breaking up of the tooth, a critical condition that loans itself to the development of long term caries. Identical, the same progression of disease is witnessed in fluoridation ingestion, in which bone formation specifically the mass of the bone is increased whilst its servile strength is reduced. In examples of fluorosis, the joints can become arthritic and further lead to increased rates of fractures. In this unfavourable scenario, the bones becomes more brittle and gradually begin to break down and is detrimental to the development of 'normal' osteoblasts (the secretion of bone) within cell function, to quote once more the National Research Council:

Effect of Fluoride on Osteoblasts

'Biopsy specimens confirmed the effect of fluoride on increasing osteoblast number in humans (Briancon and Meunier 1981; Harrison et al. 1981). Because fluoride stimulates osteoblast proliferation, there is a theoretical risk that it might induce a malignant change in the expanding cell population. This has raised concerns that fluoride exposure might be an independent risk factor for new osteosarcomas... Nevertheless, the characteristics of the fluoride effect point clearly to a direct skeletal effect.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p109

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In summary, the increase in osteoblasts in physiology a cell that secretes the substance of bone increases the stages of hypermineralisation. Irreversible, this process makes the bone wall porous and more susceptible to inherent weakness and fractures, a biological property that is also mimicked within the dental structure of the organism.

The National Research Council also in the report pointed out potentially a theoretical risk with bone cancer. This is because the process of bone regeneration with the introduction of fluoride interferes with and increases the multiplication of osteo-cells, in the words of the report: *'fluoride stimulates osteoblast proliferation'*. Plausible, the association with tumour development particularly within the bones makes sense as cancer can be defined as a disruption within the cellular mechanism that causes the uncontrolled exponential growth of abnormal cells.

In the synopsis relating to exoskeletal deformations, the National Council advises the Environmental Protection Agency to wait for the publication of the Harvard Study into fluoride and osteosarcomas. A commissioned systematic review conducted in the same year of the NRC's report, the medical research documented a 500% increase in bone cancers in male children. The published results confirmed the National Academies initial suspicion of risk between fluoride exposure and cancer. On examining the relative risks of bone fractures and fluoride consumption, the National Council cautioned:

'Fluoride may have different effects on fractures of different bones (as suggested by Riggs et al. 1990). Consequently, epidemiologists need to be careful about the degree of aggregation of outcomes. If some bone sites are included that are not susceptible, then relative risk estimates will be biased toward the null; risk or rate differences would not.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p123

These results therefore suggest that careful consideration needs to be given to specific locations in the body which might be more susceptible to fluoride poisoning. Incorrect assessment of these sites and potential risk could lead to the nullification of data.

Their conclusions regarding the escalated risk of bone fractures is compatible with the model of deterioration (osteitis) or splintering found in fluoridated regions. The increased proliferation of fractures is documented in fluoridated water and occurs between 1 and 4 mg/L and is consistent with doses of fluoride in drinking water, to quote:

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Increase in Fractures

It should be considered, however, that the Li et al. (2001) and Alarcón-Herrera et al. (2001) studies reported fracture increases (although imprecise with wide confidence intervals) between 1 and 4 mg/L [within drinking water], giving support to a continuous exposure-effect gradient in this range'...

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p138

The National Council acknowledged the real possibility that fluoride exposure at relatively 'small' doses could substantially multiply the chance of the likelihood of fractures in ranges as low as 1mg/L. Repeated, the findings of the American Academies are compatible also with studies in Northern Europe and the heightened chance of hip fractures, that in turn are associated with 'low' level ingestion of fluoride, to quote the NRC:

Hip Fractures Findings

The best available study was from Finland, which provided data that suggested an increased rate of hip fracture in populations exposed to fluoride at >1.5 mg/L'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p146

The findings within the National Research Council's data contradict the UK studies completed by Public Health England. Perhaps more importantly the report goes on to highlight subgroups in populations that are at an elevated risk, in particular children and people who suffer from renal failure, to quote once again the concerns of the National Council and their detailed report:

Renal Problems and Skeletal Problems

In patients with reduced renal function, the potential for fluoride accumulation in the skeleton is increased. It has been known for many years that people with renal insufficiency have elevated plasma fluoride concentrations compared with normal healthy persons (Hanhijarvi et al. 1972) and are at a higher risk of developing skeletal fluorosis (Juncos and Donadio 1972; Johnson et al. 1979)'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p140

The report is clear in its identification of groups of people that are injured by the introduction of fluoride into water. In addition to disrupting bone development, fluoride is also shown to inhibit human reproduction in levels as low as 3mg/L which suggests that fluoride possesses clastogenic properties, in layman's terms can damage human DNA. The extent of this detriment is not currently known, and is shown to impact upon reproduction that is clearly demonstrated and is

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documented in studies, archived by the National Council. On the issue of reduced virility, the members of the report caution that in...

Fertility Human Studies

'...this study suggests that high concentrations of fluoride can alter the reproductive hormonal environment. (Susheela and Jethanandani 1996)... In an ecological study of U.S. counties with drinking water systems reporting fluoride concentrations of at least 3 mg/L (Freni 1994), a decreased fertility rate was associated with increasing fluoride concentrations.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p161

More disturbingly, the regression of fertility is also equated with vitiation of the organism and possible impairment or deformity and is evidence within clinical animal studies, to quote once again the National Research Council:

Foetus Development Animal Studies

'High-dose hazard identification studies, such as a recently reported Xenopus embryo development study using the FETAX assay (Goh and Neff 2003), suggest that developmental events are susceptible to disruption by fluoride.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p164

Developmental studies of animal gestation periods, otherwise the trimester suggests that fluoride can retard negatively the growth cycle of mammals and is a concerning feature that might have implications for the human foetus.

Although the studies of Dr. Goh and Neff are difficult to equate with human embryo research, the fact that *'development[al] events are susceptible to disruption by fluoride'* is a worrying trend. Problematic, the long term effects of fluoride on human DNA is not currently understood, but there is mounting evidence that indicate such a correlation exists. The feasibility that fluoride is a mutagenic substance is accepted and is referred to as a potential possibility, to quote the NRC study:

Human Development

'Two small studies have raised the possibility of an increased incidence of spina bifida occulta in fluorosis-prone areas in India (Gupta et al. 1994, 1995); larger, well-controlled studies are needed to evaluate that possibility further.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p164

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The discovery that *'spina bifida occulta'* is conceivably linked to fluoride exposure is not incompatible with other findings by the National Research Council. These studies demonstrate that other chromosomal disorders are likely exasperated with the introduction of fluoride in drinking water. Although the rates of increased detection within Down Syndrome in fluoridated areas is inconclusive, the possibility of such a relationship remains and is firmly acknowledged in the National Research Council's Report, to quote:

Down Syndrome

'A small number of ecologic studies have examined Down's syndrome (trisomy 21) prevalence among populations in municipalities with differences in water fluoride concentrations. The possible association of cytogenetic effects with fluoride exposure suggests that Down's syndrome is a biologically plausible outcome of exposure'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p170

The reason why Down Syndrome is a *'biologically plausible outcome'* is that fluoride disturbs cellular activity and is a causal relationship that is picked up in studies of younger mothers with children with chromosomal disorders, to quote once again the National Research Council systematic study:

'A reanalysis of data on Down's syndrome and fluoride by Takahashi (1998) suggested a possible association in children born to young mothers... This research is also in keeping with Yang's paper (1999) that reported that for a specific type of maternal meiotic error, for younger mothers, there was a significant association with environmental exposures around the time of conception'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, pp170-172

[See Also Footnote1]

Although fluoride is often thought to be 'safe', and is currently taken by the UK Medical Council to pose 'no risk' to human chromosomal reproduction, the evidence when reviewed in a broader context provides strong circumstantial evidence that such a theoretical link exists. In the studies reported by the National Council to the Environmental Protection Agency, exposure to fluoride is thought to be a significant risk during the time of conception. In summary, the conclusions proffered by the NRC's board of committee include the following concerns:

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- (1) Fertility rates are profoundly affected by fluoride measurements in water. (Freni 1994)
- (2) High concentrations of fluoride can alter the reproductive hormonal environment. (Susheela and Jethanandani 1996).
- (3) Developmental events are susceptible to disruption by fluoride. (Goh and Neff 2003)
- (4) Increased rates of chromosomal disorders, such as Down Syndrome and spina bifida occulta are correlated with the introduction of fluoride during the trimester period. (Takahashi 1998 / Yang 1999)

A rational outcome, the increased cellular disruptions seen in fluoride patients that are exhibited regularly within the structure of the teeth and bones are also observed within the functions of the reproductive systems of the body.

Furthermore in the study conducted by the Research Council, the committee draws attention to the real possibility that fluoride also is a neuro-toxin. Its involvement is proven to damage the brain and nervous system, particularly in children that are more susceptible to levels of fluoride, to quote:

IQ in Children

‘Several studies from China have reported the effects of fluoride in drinking water on cognitive capacities (X. Li et al. 1995; Zhao et al. 1996; Lu et al. 2000; Xiang et al. 2003a,b). Among the studies, the one by Xiang et al. (2003a) had the strongest design. This study compared the intelligence of 512 children (ages 8-13) living in two villages with different fluoride concentrations in the water... The IQ scores in both males and females declined with increasing fluoride exposure... Qin and Cui (1990) observed similar negative correlation between IQ and fluoride intake through drinking water’.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards, National Research Council, National Academies, Washington DC, 2006, pp173-174

Within the fluoride literature, there are literally now hundreds of studies that show a direct effect of fluoride upon cognitive development and the depression of the neurological systems of the brain. According to the studies of Dr. Xiang, there is a direct correlation between levels of fluoride and intelligence. Percentile averages between the discrepancies of IQ are further demonstrated in the studies of Dr. Zhao, to quote:

Another IQ Study

‘Zhao et al. (1996) also compared the IQs of 160 children (ages 7-14) living in a high fluoride area (average concentration of 4.12 mg/L) with those of children living in a low-fluoride area (average concentration 0.91 mg/L). Using the Rui Wen Test, the investigators found that the average IQ of children in the high-

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fluoride area (97.69) was significantly lower than that of children in the low-fluoride area (105.21)'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, pp175

These conclusions though significant are not just found in China, but are also repeated in studies in the United States. Similar results of reduced intelligence corresponding with fluoride exposure are also found in the 'Mexican Study' that is listed in my first 'Report to Wakefield Council'. Unsatisfactory, the indications from all of the data is that fluoride not only intercepts cellular signals but also compromises neurological functioning. In the longer term, such damage to the brain can increase the risk of encephalic diseases, to quote the concerns of the Academy of Science from the NRC:

Fluoride and Alzheimer's Disease

'Fluorides also increase the production of free radicals in the brain through several different biological pathways. These changes have a bearing on the possibility that fluorides act to increase the risk of developing Alzheimer's disease'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p186

Not only does fluoride possess the possibility of increasing the risk of related dementia, but also both directly and indirectly impedes the correct operation of the brain, including neurological and endocrinological systems, to quote a summary of the evidence, 'recommendations' submitted by the National Research Council:

Anatomical Changes within the Brain

'On the basis of information largely derived from histological, chemical, and molecular studies, it is apparent that fluorides have the ability to interfere with the functions of the brain and the body by direct and indirect means'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p187

These conclusions then bring us up to date in the UK with Professor Stephen Peckham's comprehensive study that highlighted a 30% increase in thyroid problems in fluoridated regions. This was the largest statistical study ever completed in the UK and is again documented in my first paper 'The Fluoride Report' submitted to Wakefield Council. Corroborative evidence of structural changes within the brain is also cited by the National Research Council – and is an important conclusion, as it demonstrates the neuro-toxicity of fluoride, related to diminished brain function, to quote:

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Thyroid Disruptions

'The Agency for Toxic Substances and Disease Registry (ATSDR 2003) discussed four papers on thyroid effects and two papers on parathyroid effects and concluded that "there are some data to suggest that fluoride does adversely affect some endocrine glands." McDonagh et al. (2000a).'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p189

The studies into depleted thyroid function has been known about for a long time and has been ignored due to political and economic concerns. In particular, the correspondence between 'severe enamel insufficiency' otherwise 'fluorosis' and the connection with 'thyroid damage' has been officially reported as early as 1854, to quote the National Council:

Thyroid

'An effect of fluoride exposure on the thyroid was first reported approximately 150 years ago (Maumené 1854, 1866; as cited in various reports). In 1923, the director of the Idaho Public Health Service, in a letter to the Surgeon General, reported enlarged thyroids in many children between the ages of 12 and 15 using city water in the village of Oakley, Idaho (Almond 1923); in addition, the children using city water had severe enamel deficiencies in their permanent teeth.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p190

The conclusion of the National Research Council's Report is interesting, as they suggest that thyroid problems traditionally associated with dietary restrictions may actually be directly ascribed to 'fluoride poisoning', a factor that is also acknowledged by Professor Stephen Peckham's Study in the UK (2012-2013). In what is one of the most recent reviews into fluoridation in the UK, 'Water Fluoridation, Health Monitoring Report for 2014', there is absolutely no mention of thyroid problems associated with elevated exposure. Perhaps even more troublesome, the word 'thyroid' does not appear in Public Health England's review and is the first time that the gland is not mentioned in a large UK scientific report on fluoridation. The exclusion in particular to Professor Stephen Peckham's impeccable research is reprehensible! A similar noticeable silence on the thyroid issue is evident within the UK's Medical Council's Summary on Fluoride. Here the risk of fluoride toxicity is actually identified by the authors and is totally disregarded, to quote:

'The third [study] (Lin et al., 1991) found a significant positive association between combined high fluoride/low iodine levels and goitre. However, because

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this study looked at combined fluoride/iodine uptakes, and has not been published in a peer reviewed journal, the findings should be treated cautiously. Further work on this aspect is of low priority’.

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p34

The apparent indifference of lack of genuine concern about ‘thyroid harm’, which is described by the UK Medical Council, has having ‘*a low priority*’ is disquieting in view of the facts! In the words of the American National Research Council, ‘*thyroid problems may not be corrected through the diet, when recipients have had a surplus amount of fluoride*’. In this respect, fluoride can be seen as a contaminant that is counter-productive to the wellbeing of the brain and its functioning, to quote:

Thyroid

‘The authors [of the National Research Council] concluded that fluoride in excess may be inducing diseases that have usually been attributed to iodine deficiency and that iodine supplementation may not be adequate when excess fluoride is being consumed. (Susheela et al. 2005)’.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards, National Research Council, National Academies, Washington DC, 2006, p195

In other words, the UK Medical Council’s own lack of acknowledgement of studies that concern ‘*fluoride/iodine uptakes*’ makes no sense in review of the data! As commented upon by the American Academy, thyroid function and its depletion is linked to ‘*fluoride uptake*’.

It is therefore contended that fluoridation of water in socially deprived areas of Yorkshire will (as in other regions of the UK) engender an increase in thyroid problems. This relative growth in thyroid disruption is illegal and can be prevented through the privation of fluoride in drinking water. Adding fluoride a known contaminant that leads to ‘poisoning’ and the reduction of function attributed to the thyroid gland is deliberately breaking the law and under UK legislation is punishable by a maximum of 10 years in prison (Offences Against the Person Act 1861, Section 23). In addition, as fluoride is demonstrated to act upon neurological systems, the postulation that the substance impedes brain performance is not only a rational argument but is a probable outcome, to quote the American National Research Council:

Discussion (Pineal Function)

‘Fluoride is likely to cause decreased melatonin production and to have other effects on normal pineal function, which in turn could contribute to a variety of effects in humans. Actual effects in any individual depend on age, sex, and

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probably other factors, although at present the mechanisms are not fully understood’.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards, National Research Council, National Academies, Washington DC, 2006, p214

Amongst the side effects of fluoride on endocrinal functioning is ‘impaired glucose tolerance’ that likewise indicate that the toxin might not only induce thyroid problems but in actual fact is a catalyst for a whole host of diseases equated with the endocrine system, and is recognised as a legitimate concern by the National Research Council, to quote:

Other Endocrine Organs

‘Effects reported in humans include “endocrine disturbances,” impaired glucose tolerance, and elevated concentrations of pituitary hormones’.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards, National Research Council, National Academies, Washington DC, 2006, p214

Undisputed, the evidence gathered from the library of the Research Council is that the increase in thyroid problems witnessed recently in the UK including diabetes is attributed to elevated fluoride exposure. According to the summary of evidence, the paper highlighted potential problems with glucose intolerance in fluoridated levels as low as 0.1 mg/L. The onset of diabetes due to fluoride contamination is aggravated by the need to drink more water that is a major contributory factor to the disease itself, to quote the National Research Council:

Diabetes

‘The conclusion from the available studies is that sufficient fluoride exposure appears to bring about increases in blood glucose or impaired glucose tolerance in some individuals and to increase the severity of some types of diabetes. In general, impaired glucose metabolism appears to be associated with serum or plasma fluoride concentrations of about 0.1 mg/L or greater in both animals and humans (Rigalli et al. 1990, 1995; Trivedi et al. 1993; de al Sota et al. 1997).

In addition, diabetic individuals will often have higher than normal water intake, and consequently, will have higher than normal fluoride intake for a given concentration of fluoride in drinking water. An estimated 16-20 million people in the U.S. have diabetes mellitus (Brownlee et al. 2002; Buse et al. 2002; American Diabetes Association 2004; Chapter 2); therefore, any role of fluoride exposure in the development of impaired glucose metabolism or diabetes is potentially significant’.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards, National Research Council, National Academies, Washington DC, 2006, p217

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Compelling, the evidence therefore suggests that fluoride increases diabetic risk and is therefore illegal! Its ability to interfere with the immunoglobulin proteins in recent biochemical studies is an area of concern. Anecdotal evidence within medical literature denotes that sections of the population may be allergic to or have a negative response to fluoride. The observation from the National Council that possible changes within the immune system may correspond with the introduction of fluoride into the water supply is acknowledged as a theoretical possibility, to quote:

Immune System

'The possibility that a small percentage of the population reacts systemically to fluoride, perhaps through changes in the immune system, cannot be ruled out.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p230

The list goes on... Another potential problem highlighted by the National Research Council and found particularly in fluoridated regions are gastro intestinal diseases. According to the results obtained by the American Academy, the conclusions are significant because when the intake of fluoride includes the absorption of toothpaste nearly 1% of the population could be subject to unnecessary gastronal complications. From this research, it is not known if these individuals are more susceptible to cancer, the National Research Council cite a number of prominent comparative studies that show a connection between the ingestion of fluoridated water and stomach problems, to quote:

Gastro Intestinal Diseases

'... as the fluoride concentration increases in drinking water, the percentage of the population with gastro-intestinal symptoms also increases. The table suggests that fluoride at 4 mg/L in the drinking water results in approximately 1% of the population experiencing gastro-intestinal symptoms (see Feltman and Kosel 1961)... Because 1% of the population is likely to experience gastro-intestinal symptoms, and gastro-intestinal symptoms are common in areas of endemic fluorosis, especially where there is poor nutrition (Gupta et al. 1992; Susheela et al. 1993; Dasarathy et al. 1996), it is important to understand the biological and physiological pathways for the effects of fluoride on the gastro-intestinal system. Those mechanisms have been investigated in many animal studies.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, pp230-231

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Gastrin problems are not the only medical difficulties associated with fluoride, as a large comprehensive study in India demonstrated the prevalence of kidney stones proportional to skeletal fluorosis. Individuals suffering from the side effects of fluoride exposure were nearly 5 times more likely to develop kidney stones, to quote:

Kidney Stones

'Singh et al. (2001) carried out an extensive examination of more than 18,700 people living in India where fluoride concentrations in the drinking water ranged from 3.5 to 4.9 mg/L. Patients were interviewed for a history of urolithiasis (kidney stone formation) and examined for symptoms of skeletal fluorosis, and various urine and blood tests were conducted. The patients with clear signs and symptoms of skeletal fluorosis were 4.6 times more likely to develop kidney stones.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p236

The conclusion taken from the results in India relative to the incidence of fluorosis in the population predicts accurately the rates of kidney stones. As would be expected, the trends equated with kidney stones due to fluoride contamination is symmetrical with the increased rate of kidney cancer, to quote:

Kidney Cancer

'The Hoover et al. (1991) analyses of the Iowa and Seattle cancer registries indicated a consistent, but not statistically significant, trend of kidney cancer incidence with duration of fluoridation.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p281

Here in the UK, in contrast it is interesting that in the Medical Council Report 'Fluoridation and Health' the review leaves out any mention of the word 'kidney stones' in their summary, and the UK Health Monitoring Report for England 2014 denies flatly that there is a relationship between fluoride and kidney stones. In Public Health England 'Summaries of Evidence', the medical organisation actually argues (counter to reason) that the incidents of kidney stones are lower in fluoridated regions, to cite Public Health England:

Summaries of Evidence

'There was evidence that the rate of kidney stones was lower in fluoridated areas than non-fluoridated areas.'

Water Fluoridation, Health Monitoring Report for England, Public Health England, 2014, p5

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The surprise findings of Public Health England contradict the American National Research Council's Review of Evidence. More troubling, the 'Water Fluoridation Health Monitoring Report 2014' fails to mention 'kidney or renal cancer' and sidesteps the issue by grouping together 'kidney stones' with all 'cause mortality'. In addition, the rates of cancer and fluoride are not just found deposited within the kidneys, but systematically attack the body.

Incontrovertible, the evidence therefore suggests that other types of cancer are prevalent within fluoridated regions and is a proposition that is firmly acknowledged by the American National Research Council and its quotation of an earlier study in the UK. This important research paper has been conveniently forgotten by the Medical Council and Public Health England. The authors of the earlier English oncological report made some startling conclusions, to quote the NRC:

Oral / Pharyngeal Cancer

In an earlier study in England, oral-pharyngeal cancers among females constituted the only site-gender category for which standardized mortality ratios in England were found to be significantly elevated in areas with naturally occurring high fluoride concentrations, defined as more than 1.0 mg/L. Twenty-four site gender combinations were examined for 67 small areas (Chilvers and Conway 1985).

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p282

In keeping with increased reports of mouth carcinoma is the evidence that uterine cancer is significantly elevated within fluoridated regions and again is research that seems to contradict Public Health England's glowing report concerning fluoride consumption and its fraudulent claims that:

'There was evidence that the rate of bladder cancer was lower in fluoridated areas than non-fluoridated areas'. (For a dismissal of this plainly nonsensical argument, please see the introduction to this paper page 7).

Water Fluoridation, Health Monitoring Report for England, Public Health England, 2014, p6

Wishful thinking! the UK's position of fluoride as a catalyst that reduces bladder cancer does not stand up to scientific scrutiny and is counter to the impeccable evidence, provided by the American National Research Council, on the subject of gynaecological cancer, the report noted the following concerns:

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Uterine Cancer

'An association of uterine cancer (combination of cervical and corpus uteri) with fluoridation was reported by Tohyama (1996), who observed mortality rates in Okinawa before and after fluoridation was terminated, controlling for socio-demographics. This analysis is a follow up of the positive results from a previous exploratory analysis that comprised a large number of comparisons conducted by this researcher with the same data set. The only other recent publication to report on uterine cancers is that of Yang et al. (2000), who observed a mortality rate ratio of 1.25 with 95% CI of 0.98 to 1.60.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p282

In the UK studies, there appears to be an attempt to reverse the link of cancer with fluoride, by either ignoring that such a comparison exists or by suggesting the inverse, i.e. that cancer reduction is an observable effect of fluoridation. The perspective is a contradiction to all common sense and reason, and does not stand up to analysis, in which in the UK 'all-cause mortality' rates in unfluoridated regions are shown to be statistically lower. This then brings us onto the subject of concern regarding the exposure of children to the adverse effects of fluoride which are less well understood. It is thought in many incidences that the toxicological outcome of fluoride is many times greater, to quote once again the apprehensions of the National Research Council:

Risk to Children Sub-Populations

'Children are considered a special subpopulation because their health risks can differ from those of adults as a result of their immature physiology, metabolism, and differing levels of exposure due to factors such as greater food consumption per unit of body weight and outdoor play activities. Different levels of exposure for children are typically considered in risk assessments, but the underlying toxicity database often does not specifically address effects on children.'

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p292

Conclusion

In summary to the excellent National Research Council's Report, the denouement or outcome is unequivocal. Extremely comprehensive and technical, the document outlines in detail the unassailable conclusion that fluoridation of water at 1 part per million or lower is harmful to the general population. Fluoride's devastating impact upon the living systems of the body is also fixed to fluoride contamination levels relative to calculated risk. The verification of 'data-facts' based and formulated upon the 'best' statistical evidence is scientific!

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Fluoride in this report is shown to have a pernicious effect on the body, skeleton and nervous system, and in the National Research Study is demonstrated to have a clear detrimental effect. These outcomes are associated with a litany of impairments described by the American National Academy of Medicine listed below:

Evidence Based Diseases that are Attributed Scientifically to the Fluoridation of Water, Documented within the Study of the National Research Council, The Largest Systematic Review on Fluoride in Drinking Water

Fluorosis

Exoskeletal Fluorosis

Osteoblast Profusion

Hypermineralization

Osteosarcomas (Bone Cancer)

Reduced Bone Tensility

Anomalous Hydroxypatite (Bone Remodelling)

Increased Fractures

Higher Rates of Hip Fractures

Renal Problems

Infertility

Disruption of Reproductive Hormones

Impaired Hormonal Signalling

Disturbance within Foetus Development
Possible Increased Rates of Spina Bifida Occulta

Chromosomal Disorders Including Down Syndrome

Decreased IQ
Alzheimer's Disease

Degenerative Brain Diseases

Neurological Symptoms

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Thyroid Disruption

Enlarged Thyroid in Children

Reduced Pineal Function

Endocrine Disturbances

Compromised Enzymological Function

Impaired Glucose Intolerance

Elevated Levels of Pituitary Hormones

Diabetes

Immunological Disorders

Gastrinal Problems

Kidney Stones

Kidney Cancer

Oral / Pharyngeal Cancer

Uterine Cancer

Bladder Cancer

Elevated Risk to Children and Babies

Enlarged Risk to Subgroups (Sick and Elderly)

Increased Risk Renal Impairment

As we can see, there is a whole group of obnoxious symptoms that are directly equated with the ingestion of fluoridated water. Perhaps more unexpected is the widespread scientific indifference concerning the health effects of fluoride within the UK Medical Council. A lamentable position, this lack of action is aptly summed up in their own poor conclusions found in their pathetically worded report 'Water Fluoridation and Health'. Apparently unconcerned about fluoridation and its outcome upon human wellbeing, the Working Group state:

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5.3.13 Conclusions

‘Further research on the possible effects of fluoride on immunological function, reproduction, birth defects, intelligence, the kidney, gastrointestinal tract and thyroid, and other suggested impacts, is considered to be of low priority.’

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p36

To sum up this section, there are at least 40 symptoms documented in the National Research Council Report, arising as a direct result of fluoridation in tap water. In the far reaching study, the authors from the National Academy unreservedly show elevated rates of disease in fluoridated regions. More pertinently, the committee lists exact toxicological rates attributed to fluoride poisoning. These results are not subject to public debate, but are scientific fact!

The analysis of the data therefore allows a pretty straight forward case to be brought against the UK regulatory bodies that oversee fluoridation, specifically a public inquest into the particular individuals that head these powerful organisations. Following which, the guilty can be tried in a court of law for conspiring with corporate enterprises to contaminate the fresh supply of UK water. A serious crime, the implications of this matter and its wider consequences for the ruling of fluoride schemes throughout Europe should in turn be critically evaluated. An important subject, the issue of culpability is a vital discussion that we will endeavour to explore following our review of the Brisbane and York Studies and their implications:

(Section 5): Brisbane Study and York Summaries

This section will look at the broad systematic review of fluoride in the United Kingdom and Australia, respectively the York and Brisbane Studies. These reports (in order) were produced in 2000 and 1997, and are earlier than the erudite American Research Report ‘Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency’s Standards’ in 2006. The two reports (York and Brisbane) are valuable as together, they show conclusively how there are very few good quality studies available in the public domain, regarding the efficacy and safety of fluoride treatments in the UK. The lack of information that is claimed within the York and Brisbane Reports raises the legitimate question of medical fraud. Following these serious allegations of mismanagement, the American National Research Council’s influential Review is crucially important, as it is the first report to give exact data relating to the toxicity of fluoride and the levels of contamination that are attributed to risk.

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Concerning the issue of fluoride as a suitable ‘treatment’ for caries, the York Study (September 2000) the most complete UK systematic review failed to answer objectively the question, if fluoridation ingestion has any positive effects on the formation of caries? According to the authors of the York Review, their inability to answer the question occurred due to fundamental problems inherent within the design of the longitudinal studies, the authors of the York Report concede:

4.9 Discussion

‘While many cross-sectional studies exist, relatively few studies were designed to assess the effects of water fluoridation over time. Studying populations exposed or not exposed to water fluoridation longitudinally allows baseline dental health to be taken into account and differences developing over time to be assessed. Studies that assess dental caries at one point in time using an ecological or cross-sectional study design only show the differences in caries prevalence at that particular point in time. In such studies it is not possible to tell whether the observed differences have always existed between these populations or whether they are the result of the differing levels of water fluoride content between the study areas...

...To have clear confidence in the ability to answer the question in this objective, the quality of the evidence would need to be higher. The failure of these studies to deal with potential confounding factors or to provide standard error data means that the ability to answer the objective is limited’.

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation,
The University of York, Report 18, p24

In terms of fluoridation, the whole ethos behind the ‘treatment’ methodology of fluoride is to reduce caries. It is claimed (ad infinitum) that the agent prevents dental decay, the evidence however for these inflated claims is either missing or not quantifiable. Absolutely stunning, the largest study in the UK on the question of fluoride could not answer the big questions in dental research. A basic contradiction, the York Review did not have the figures to substantiate the claims that the instances of caries in comparative studies of fluoridated and non-fluoridated regions over the long term are due to the ‘treatment’ of water. This lack of scientific rigour was not due to oversight, but because the research papers did not exist! A remarkable position, the inability to answer the fundamental questions within medical research appertaining to fluoride is not unique and is also found in the earlier Brisbane Study (1997), to quote the Mayor’s Special Taskforce Team:

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In 1991, the NHMRC Working Group called for a multidisciplinary group to investigate total fluoride intake in Australia, and examine the differences between fluoridated and unfluoridated areas. Many members of the Taskforce were dismayed that apparently, this research has still not been carried out. There can be no doubt that the absence of contemporary Australian research in respect of these important and legitimate concerns, whether as a result of lack of will or lack of resources, represented a serious impediment to the pro-fluoridation case. A significant number of Taskforce members remained concerned that the safety margin between a supposed safe dose of fluoride and a potentially toxic dose was not wide enough.

Brisbane Study, Lord Mayor's Taskforce, Executive Summary, 1997, p3

In two separate documents tasked with the same objectives in the UK and Australia, the researchers shared virtually identical positions. Rather bewildering, the reviewers are essentially repeating the same academic position, the efficacy of fluoride as a 'treatment' for the incidences of caries is not supported within the medical literature, and this is because the basic studies have not been completed! With regards to the hypothetical concerns of fluoride, the Brisbane Taskforce had every right to be worried about the safety 'margins of fluoride', as the American Research Council later in 2006 would vindicate many of these concerns. In their data sheets for example, the American Research Council published the known toxicological effects of fluoride and asserted that levels below 1 particle per million are harmful to human health.

Confounding factors also arose with the Brisbane Study regarding dental health. Indications in the Brisbane Report showed that fluoride might actually compromise tooth health, a position that was held by their senior expert witness Dr. John Colquhoun, A former Chief Dental Officer from New Zealand. His own research contradicted the established presumption that fluoride introduced into water supplies is beneficial for tooth hygiene. A principle and key investigator in a high position within dental research, Dr. Colquhoun's own data actually disputed the established orthodoxy and highlighted fluoride's toxicity relative to dental health, to quote the Chief Dental Officer of Auckland and his incredible findings:

'...[it is observed] that when any unfluoridated area is compared with a fluoridated area of similar income level, the percentage of children who are free of dental decay is consistently higher in the unfluoridated area.

William Lea, Science and Environment Section,
House of Commons Library Research Paper, 93/121, 21 December 1993, p15

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In the Brisbane Study, the Mayor's Taskforce were particularly taken by the level of analysis in Dr. Colquhoun's presentation before the committee. A Chief Medical Officer from the University of Auckland, he is a world-renowned expert on water fluoridation. An opponent, his evidence to the Brisbane Taskforce was particularly interesting because of his eminent background as a top dentist and researcher. Dr. Colquhoun held one of the highest senior posts in New Zealand (the Principal Dental Officer for Auckland). Previously Dr. Colquhoun had been a strong advocate and supporter of fluoridation into the early 1980s. Before the Brisbane Committee in 1997, the Chief Medical Officer outlined the evidence that had changed his opinion about fluoridation and is given in Section 6.10 of the Brisbane Review to paraphrase:

Scientific Studies: Including Findings that Fluoride Can Contribute to Higher Rates of Decay

- (1) Dr. Colquhoun articulated initial concerns in New Zealand raised by the falling decay rates in both fluoridated and non-fluoridated areas, and later confirmed by similar findings in other countries throughout Europe.
- (2) Studies in Auckland and elsewhere in New Zealand found little or no relationship between water fluoridation and levels of tooth decay. These are actual real world studies on large populations, as opposed to a theoretical position adopted by Public Health England.
- (3) Examples include Professor Teotia in India, who had found that tooth decay rates increased with higher intake of fluoride (Fluoride Magazine Volume 27, p301-308, 1994)
- (4) Critical examination of decay rates for 5 year olds in New Zealand from 1930 to 1990 showed that declining caries levels appeared to predate both water fluoridation and the availability of discretionary sources of fluoride (This same critical point is also shared by Professor Diesendorf).
- (5) Similar rates of decline are evidenced also in Europe [See Appendix 1(b): World Health Organisation Data 2012].
- (6) Reasons for caries decline are not yet fully understood, however, Dr. Colquhoun believed that post war improvements in diet, particularly increased consumption of fruit, vegetables and cheese (latter known to have anti-caries properties) were important elements.
Brisbane Study, Lord Mayor's Taskforce, Executive Summary, 1997, pp37-38 [paraphrased]

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Contradictions Inherent within the Fluoride Data

- (1) Dr. Colquhoun accused pro-fluoridation researchers of both conscious and unconscious bias in their choice of fluoridated and unfluoridated communities for comparison purposes, and also referred to a lack of 'blind' studies. In particular, the majority of research (that leads public opinion) and steers scientific discourse relative to policy is paid for by private financial interests.
- (2) Diagnosis of tooth decay involved a very subjective exercise of judgement, and researchers were usually pro-fluoridation (Similarly the York Report also found such problems with bias the lack of evidence from blind studies).
- (3) The principal decay-prevention action of fluoride has been shown to be topical (i.e. on the surface of teeth) rather than systemic, as was previously thought (See also Appendix 4: The Early Days – Have the Descriptions of Tooth Infection Changed within Dental Literature? For the Counterargument, e.g. the application of fluoride on the tooth projection is proven to be unfavourable for the maintenance of oral sanitation).
- (4) Consequently, there was limited benefit from actually swallowing fluoride and an increased risk from fluoride poisoning.
- (5) General concerns for the potential harm, particularly the effects of long term ingestion of fluoride (Please refer back to the American National Research Council Report 2006 for the list of toxicity levels for fluoride poisoning).
- (6) Sweden's rejection of fluoridation on the recommendation of a special Fluoride Commission, which included amongst its reasons *'The combined and long-term environmental effects of fluoride are insufficiently known'* (Report of Swedish Fluoride Commission, SOU Stockholm, 1981).
- (7) The 1987 National Oral Health Survey showed decay rates in un-fluoridated Brisbane, similar to those in fluoridated Adelaide and Melbourne. These comparisons correlated with Dr. Colquhoun's assessment of fluoridated and unfluoridated communities in New Zealand and elsewhere, which also appeared to show additional risk and no benefits for fluoridation.

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(8) Reference was made to the many countries in Asia where water fluoridation was banned on the issues of public safety, and to those European countries such as Belgium, Holland, Germany, Sweden, Denmark, Finland, Hungary, etc., where fluoridation experiments were conducted but the rationale of water fluoridation had ultimately been rejected.

(9) In summary, Dr. Colquhoun was convinced that there was no such thing as a 'safe' level of fluoride – the only 'safe' dose was the lowest that you can get. Dr. Colquhoun considered that it was illogical to believe that fluoride could affect teeth without affecting any other parts of the body. This conclusion although arrived at independently by Dr. Colquhoun and his assistants predated the American National Research Council's Paper on the levels of toxicity by at least 9 years!

Brisbane Study, Lord Mayor's Taskforce, Executive Summary, 1997, pp38-39 [paraphrased]

Conclusion: Brisbane and York Studies

Although fluoride is presented as an established 'medicine' that is 'safe' and 'proven' to prevent tooth decay, the evidence to date has not been established and current data suggests otherwise that fluoride might actually cause more damage than good [Refer to the World Health Organisation's own published figures, Table 3(b)]. Little research has been conducted into fluoride and its impact upon tooth development and health in long term studies. The research that has been conducted either shows a lack of evidence or the opposite statement that fluoride can harm the tooth through prolonged exposure. The contention of ambiguity is summed up clearly and succinctly in the Water Fluoridation Research Paper, House of Commons Library 93 /121 December 1993:

'...the debate over fluoridation can at times be particularly partisan and controversial'.

William Lea, Science and Environment Section, Water Fluoridation Research Paper, House of Commons Library 93 /121 December 1993, p 10

To many members of the general public and the medical profession, it might come as a surprise to learn that such a profound disagreement is currently evident within the dental field of fluoride. The general public in the last 50 years have been conditioned to accept fluoride as a necessity, a 'treatment' for tooth decay. The evidence however for many of these assertions are baseless or anecdotal. None of the main reports into fluoride conducted within the UK to date have validated these claims and a lot of international research question the efficacy of fluoride and its safety.

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On the issue of the level of research into fluoridation and healthcare, the Medical Research Council quoting the York Report 2000 noted the following concerns:

Lay Summary:

'The [York] review concluded that little high quality research had been carried out on the broader question of fluoride and health, and that the available evidence did not allow confident estimates to be made of other possible risks to health or of the benefits of water fluoridation in reducing dental health inequalities'.

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p1

The *'partisan debate'* commented upon by the parliamentary 'Water Fluoridation and Health' Research Paper has for the most part been exaggerated. This is because many of the top experts within dental science no longer take seriously the claim that fluoride is beneficial at face value (See also Dr. Hardy Limeback's research). Cited in my previous paper submitted to Wakefield Council, within the bibliography there are over 100 studies that have conclusively shown adverse or negative effects associated with fluoride. In terms of fluoride and its general toxicity, the latest research establishes that there is no 'controversy'. This is because the levels of exposure of fluoride and the effects on the human body are now well known and documented comprehensively (Please see the detailed and systematic report produced by the eminent National Research Council 2006).

We might note that, in this information age of scientific 'facts', when the figures contradict the agenda, the wheel just keeps on turning, and ignores the 'evidence'. In this dystopia, 'science' and 'statistics' are both manipulated and the 'facts' are transformed into 'uncertainties' that can be spun into 'public opinion', 'debate' or 'controversy'. When the facts exist independently, we are not dealing with 'subjective uncertainties', but 'objective truths'. The UK Medical Council would be wise to remember this or the general public will lose confidence in medicine as a scientific tool. There is then no 'debate' when it comes to fluoridation if an 'uncertainty principle' exists, the 'controversy' espoused invalidates the legal argument for pro-fluoridation. Furthermore the proposition that fluoride is a 'benign substance' has been undermined by the recent work conducted in the field of toxicology.

To elaborate, the risks of fluoride contamination can be worked out accurately and are indexed in the National Research Council's Report 2006. The argument that there is disagreement amongst the scholars is clearly a fiction. The contrived position that there is 'uncertainty' or a 'robust debate' is shown to exist as a nonsense...

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To reiterate, the toxicological statistical variances relative to risk are calculated and known within the scientific community. These results have already been published by the American National Academy.

Undisputed, the negative effects of fluoride are extremely well documented and the beneficial element largely attributed to fluoride though widely disseminated is not backed up by any meaningful research... The contention is highlighted independently in the York and Brisbane Reports that clearly highlight the contradictions, a position that has legal implications for fluoride!

(Section 6): Legal Arguments

The Law and Why Fluoride is Illegal under UK and European Legislation

Fluoride and the Enactment of Law

This is a very big study area and requires a thorough understanding of the law. Perceived variances recorded within academic and medical literature has severe connotations for the legalisation of fluoride throughout the UK and Europe, in particular the enactment of the water laws. This argument is given more attention in my first report submitted to Wakefield Council but is nevertheless worth considering in relation to NHS England's commitment to fluoridation schemes that will lead to statutory legal challenges.

Hypothetically, for the sake of making a legal point if we play along with the jaundiced argument of the pro-fluoride industrialists and their articulation of the 'uncertainty principle', the legal argument is shown to be litigious. The forced position that fluoride is 'generally safe' or is an 'ingredient' augmented with 'health giving properties' is a concoction that is fallaciously propagated by the UK Medical Research Council. In their Working Group Report 'Water Fluoridation and Health', the document negates the proper 'health and safety' requirements of the law and instead argues for the 'management of risk', to quote:

2.2. Risk management

'From a public health perspective, the aim is to optimise the overall improvement in population health, while taking account of any differences in susceptibility within the population. To achieve this requires quantitative estimates of the various dose effect relationships... In the absence of an agreed, universally applicable, common metric..., such comparisons cannot be performed objectively and precisely. Hence, the inevitability of using, at least in part, expert and political judgement to evaluate the pros and cons of fluoride supplementation'

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p7

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Let's make this very clear from the onset:

- (1) The quantitative risks of fluoridation can be judged and are objectively assessed in the American National Research Council Report. To repeat, this paper is the largest ever study conducted into examining the issue of fluoride toxicity within the target population of fluoridated America. It is simply untrue to say that a common metric outlining the quantitative doses of fluoride does not exist. Counter to the UK Medical Council's assessment, these measurements can be performed objectively and precisely, and what is more they are agreed upon scientifically and are universally applicable.

- (2) If a risk cannot be judged accurately (a false argument), then a 'potential risk' exists and excludes legally the argument for fluoridation. It is not good enough to *'estimate... the various dose effect relationships [relative]... to susceptibility within the population'*. If the UK Medical Research Council had drafted out the Working Group Report accurately according to the framework of the law in particular the Water directives, the risk management statement would have read something like the following example:

'In the absence of an agreed, universally applicable, common metric..., such comparisons of assessing risk cannot be performed objectively and precisely, so the Medical Council advises caution against the proposal to fluoridate water until such risks can be determined objectively. This recommendation is in keeping with the Water Act 2003 and mitigates against potential or inadvertent harm'.

Simon C. Haigh, Redrafted Proposal for the Working Group Report,
Water Fluoridation and Health, Medical Research Council [Example]

The UK Medical Research Council Report is a very good example of disinformation that muddles 'fact' and 'fiction' and in the end relegates the responsibility of fluoridation upon the democratic process of 'informed choice'. This position is based upon the fact-less manipulation of 'information', to quote once again the Working Group Report 'Water Fluoridation and Health, 2002':

Lay Summary

'With regard to public knowledge and understanding of the fluoridation issue, this report identifies additional information needed by the public to make informed decisions'.

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p2

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The ultimate verdict concerning the general public to make 'informed choices' is, as the UK Medical Research Council very well knows, a complete fallacy. The majority are not permitted according to UK statutes to influence fluoridation and is evidenced in the Geraldine Milner Case. To make this legal point with reference to the private citizen making '*informed decisions*', it is first necessary to highlight briefly the Milner Lawsuit and why public 'consultations', Latin 'consulere' (to take council), do not work when the consensus opinion are not in favour of the proposal for water 'treatment'.

On a side note as long as what the authorities are planning abides by the law, then the government on public consultations are 'untouchable', unfortunately for the government the issue of 'non-legality' is of paramount importance and informs the basis for the rejection of fluoridation. We will address the validity of fluoridation in a moment first however let's turn our attention to the instructive judicial review outlined in the Milner Case.

In early 2009, the South Central Strategic Health Authority announced that fluoride would be added to the public water supply of 200,000 people, despite the fact that 72% of the 10,000 people who took part in the public consultation were opposed to the move (Southampton Council supported water fluoridation, but Hampshire County Council opposed it). A local resident from Southampton, Milner sought judicial review of the decision arguing that fluoridation should go ahead only if a majority of those consulted agreed. On the 19th of February 2011, the review upheld the authority's decision to fluoridate the water supply, Justice Holman stated:

I refuse this claim for judicial review. I appreciate that will disappoint Ms Milner and the many objectors in the affected area... [of] whose position, I am sympathetic... "As I have endeavoured to show and contrary perhaps to the belief of Ms Milner and others it is not the law that fluoridation can only occur when a majority of the local population agree. Parliament has firmly entrusted area specific decision making to the relevant SHA [Special Health Authority]. This SHA [Special Health Authority] have not acted unlawfully and no court can interfere with their decision'.

Daily Echo, High Court Challenge to Fluoridation Plans for Southampton Rejected, 2011

So much for the novel idea propounded by the UK Medical Research Council of the '*public making informed decisions*', nevertheless it can be stated that Justice Holman's decision was lawful. In fairness, the Judge could not rule otherwise, for if he had he would have rendered parliament and our 'democratically' elected representatives impotent. What is perhaps more surprising is why Ms Milner's legal team made such a weak argument that had no chance of standing up in any

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UK court? This discrepancy is a great mystery? Without sounding too judgemental, all that was required of Ms Milner's lawyer was to fill in the paper work, and frame the correct legal argument.

The ruling then is not a deficiency against the fluoridation stance as is often maintained by the pro-fluoridation lobby. Objectively, the inadequacy inherent within the settlement of the Ms Milner Case rests upon the fundamental flaw that 'public representation' is legally binding, which of course it is not! This was a wasted opportunity and it is surprising that a lawyer representing Ms Milner would make such a basic error within constitutional rule! Mr Justice Edward Holman followed the law, he did however mention in his summing up of the case the following and important observation:

'... it is important to stress that our democratic parliament decided long ago that water can in certain circumstances be fluoridated'.

Daily Echo, High Court Challenge to Fluoridation Plans for Southampton Rejected, 2011

The aforementioned remarks made by Mr Justice are to say the least a gross generalisation. Parliament never 'established' that fluoride was 'legal' and neither did it clearly lay out under what circumstances water could be fluoridated. The statement when scrutinised is counter-intuitive to the facts, and we might take note that the issue of water fluoridation has already been resolved under UK law, to add fluoride to water is illegal and is demonstrated in the Mrs Catherine McColl v Strathclyde Regional Council Case in Edinburgh on the 29th June 1983. McColl argued that water fluoridation was illegal for 4 different reasons:

- (1) it constituted a nuisance,
- (2) it would breach Section 8 of the Water (Scotland) Act 1980,
- (3) it would breach the Medicines Act 1968, and
- (4) it was ultra vires or outwith [beyond] the remit of the council.

In the first judicial review of fluoridation, Lord Jauncey ruled against the motion that the substance could be introduced into the water supply. The Court sat for 201 days making it the longest and costliest Case in Scottish legal history. Exhaustive, the evidence was heard from leading experts worldwide on both sides of the argument. After listening to all of the evidence, the Judge upheld the part of the Case which claimed that fluoridation was ultra vires (beyond the Council's Legal Power) and validated the motion that the water authority had a legal obligation to provide a supply of 'wholesome' and 'clean' water (Water Act Scotland 1980). Strangely and perhaps even contradictory in his ruling, Lord Jauncey did not uphold the breach of Section 8 of the Water Act Scotland 1980,

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e.g. regulations governing the water supply conditional to the local authority, although in his ruling he did allude to such a contravention of the Act.

According to the law in United Kingdom, it is a legal imperative that water companies offer clean uncontaminated water – and to fail to do so according to Lord Jauncey is illegal. In summary, the Judge sustained the Petitioner's plea in law that fluoridation for the purpose of reducing the incidence of dental caries is under law ULTRA-VIRES and granted the interdict on this single point. Lord Jauncey in his ruling in 1983 stated:

'Is wholesome in relation to health to be restricted to health consequent upon contamination of water, that is to say, is wholesome water no more than that which is neither contaminated nor in any other way dangerous to health nor obnoxious to sight or smell? Alternatively is wholesome to be construed as embracing also a positive benefit to health so that not only the health of the consumer consequent upon drinking the water in its natural state can be looked at but also any possible benefit to his general health? The petitioner contends for the former construction and the respondents for the latter.'

David Shaw, The Legal Fiction of Water Fluoridation, Medical Law International, 2012, p15

A straight forward ruling, the judgement is of course legally correct. His interpretation of the law that 'wholesome water' can be defined as 'water' that is 'non-contaminated' is based upon the etymological basis of the word 'whole' and in this context suggests a liquid that is not 'divided'. It is however surprising that in his ruling on the Scottish Water Laws 1980, he failed to mention the distinction of 'clean water' that is a pre-determinant of the definition 'wholesome water'.

His ruling however did suggest that under the interpretation of the law, the definition '*wholesome as embracing a positive effect to health*' is a secondary argument to 'water integrity', 'integer' (to be intact) thus to be 'clean'. In context to water as encompassing a '*beneficial effect to health*', it can now be shown indelibly that fluoridation is dangerous and constitutes a '*public nuisance*'. With slight modifications to the Law, this is the same argument that YPAF (Yorkshire People Against Fluoride) would use because the ruling is legal and still stands up to scrutiny today. On summing up the evidence Lord Jauncey noted:

'... an individual's right to choose how to care for his own body should only be encroached upon by statutory provisions in clear and unambiguous language... This is a legal comment and not a moral judgement.'

Lord Jauncey, Opinion of Lord Jauncey In Causa Mrs Catherine McColl (A.P) against Strathclyde Regional Council. The Court of Session, Edinburgh, 1983

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The definition of personal choice is in keeping with his overall legal judgement, namely that the law needs to be clarified if fluorides are added to drinking water. The specific opinions elaborated upon by Lord Jauncey are in fact extremely pertinent to the fluoride question in general, and is a valid legal perspective that is upheld within the Hague. In 1972, the Supreme Court in the Netherlands ruled that water fluoridation is in violation of Article 8, to quote the Human Rights Act:

Article 8 – Right to Respect for Private and Family Life

- (1) *‘Everyone has the right to respect for his private and family life, his home and his correspondence’.*

- (2) *‘There shall be no interference by a public authority with the exercise of this right except such as in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention or disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others’.*

The Declaration of Human Rights, Article 8, United Nations, 1948

Thus according to Article 8 of the Human Rights Act and its interpretation, the Right of Freedom to choose how an individual accesses healthcare modalities is a provision that is preserved within the definition of ‘private’ and ‘family life’, and is therefore a fundamental Human Right. Or more specifically in the words of the Minister of Health from Luxemburg in 1976: *‘Fluoridation is a naïve utopia, without practical effect, an attack on personal liberty’.*

To review the Netherlands Case in 1973, a group of plaintiffs sought an injunction to stop the city of Amsterdam from adding fluoride to the water supply. They argued that interference with the right to privacy by the state is justified only in accordance with the law. The Dutch Supreme Court ruled that this phrase meant ‘permissible under an Act of Parliament’. This in turn meant that water fluoridation was indeed illegal, as the Water Supply Act prescribed the supply of good drinking water, and adding fluoride to drinking water goes beyond this legal purpose.

The judgment is very similar to Lord Jauncey’s ruling ‘ultra vires’ in the McColl Strathclyde Case. The Dutch Supreme Court put an end to all water fluoridation in the Netherlands, and in context to the fluoridation argument, it is somewhat surprising that more reference is not made to it by opponents of water fluoridation! The connotation is that under UK Law the adding of pharmacological ingredients into the water supply is illegal and a contravention

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of the Human Rights Act, Article 8 – The Right to Respect for Private and Family Life. If, for example, it were successfully argued in the UK that water fluoridation constitutes a ‘drug’ (a substance that has a physiological effect), then a case could be made that this too goes beyond the powers conferred by Law. (For the argument that fluoride is a drug, please See Appendix 2: Fluoride Advertisements – The Disinformation Campaign – Flouridine Anticavity Toothpaste. On the packaging the toothpaste manufacturers clearly state that fluoride is a ‘drug’).

On the subject of the McColl Strathclyde Case, it is worth now looking at the Judge’s summary of the plaintiff’s arguments. Lord Jauncey’s 400-page-judgement dealt mainly with the medical and scientific evidence for and against water fluoridation, with only a few dozen pages reserved for the legal issues. His summary of the medical and scientific evidence is as follows:

Lord Jauncey’s Summary of the Medical Evidence

- 1. Fluoride at a concentration of 1 ppm is not mutagenic.*
- 2. No biochemical mechanism has been demonstrated whereby fluoride at a concentration of 1 ppm is likely to cause cancer or accelerate existing cancerous growth.*
- 3. No association between fluoridation of water supplies and increased cancer death rates in the consumers has been demonstrated.*
- 4. There is no reason to anticipate that fluoride at a concentration of 1 ppm is likely to have an adverse effect upon the migration of leucocytes in the consumer.*
- 5. There is no reasonable likelihood that chronic renal failure patients drinking water fluoridated to 1 ppm will suffer harm.*
- 6. Fluoridation of water supplies in Strathclyde would be likely to reduce considerably the incidence of caries.*
- 7. Such fluoridation would be likely to produce a very small increase in the prevalence of dental mottling which would only be noticeable at very close quarters and would be very unlikely to create any aesthetic problems.*
- 8. The present low levels of fluoride in the water supplies in Strathclyde do not cause caries.*

Lord Jauncey, Opinion of Lord Jauncey In Causa Mrs Catherine McColl (A.P) against Strathclyde Regional Council, The Court of Session, Edinburgh, 1983

These 8 points comprise of the main summaries of Lord Jauncey and were made after weighing up carefully the evidence for and against fluoride. If we quickly look at the medical expert list for the plaintiff and the respondent, we will quickly notice that there are approximately twice as many witness testimonies for the pro-fluoride stance. In addition in 1983, Lord Jauncey did not have all the

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scientific evidence, as its documentation did not exist. The Judge therefore had to rely on witness testimony that in the case of the plaintiff was both controversial and outside of the medical paradigm. In this heavily weighted case, all the Judge could do in his capacity was to listen very carefully to the witness testimony. In the court hearings, the government regulatory experts disproportionately outnumbered the plaintiffs by 2:1 the odds were extremely stacked against the argument that fluoridation constitutes a criminal offence and is highlighted in the list of expert witness testimony that is documented below:

MEDICINE AND SCIENCE

<u>FOR PLAINTIFF (PETITIONER)</u>	<u>FOR RESPONDENT</u>
Dr. Yiamouyannis (Research Scientist)	Professor Smellie (Biochemistry)
Dr. Burk (Biochemistry and Epidemiology)	Drs. Evans, Martin, and Obe (Cytogenetics)
Dr. Steveley (Biochemistry)	Professor Sir Richard Doll (Medical Statistics)
Dr. Aly Mohammed (Cytogenetics)	Professor Newell (Medical Statistics)
Dr. Gibson (Homeopathy)	Dr. Erikson (Epidemiology)
Dr. Stern (Statistics)	Dr. Sharrett (Epidemiology)
Dr. Parsons (Nephrology)	Mrs. Paula Cook-Mozzafari (Epidemiology)
	Professor Finney (Statistics)
	Professor Nordin (Mineral Metabolism)
	Dr. Wilkinson (Immunology)
	Dr. Robinson (Nephrology)

DENTAL SCIENCE

<u>FOR PETITIONER</u>	<u>FOR RESPONDENT</u>
Dr. Philip Sutton	Professor Murray
Professor R Scorer (Mathematician)	Professor Mansbridge
	Professor Jackson
	Dr. Otto Backer Dirks
	Dr. Martin Downer

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The Judge following the advice of the medical experts in this situation could not have reasonably known that the evidence for fluoridation was based upon weak and non-existent research that had no basis in fact. In 1983 during the court proceedings at that time, there had been no systematic review done of the evidence on fluoride in the UK. This evidence appeared 17 years later in the York Review, completed in the year 2000. Neither could Lord Jauncey have anticipated its adjacent Study conducted by the Brisbane executive within Australia in 1997. To recap what the York and Brisbane Review Papers had to say on the evidence of water fluoridation, as an instrumental policy for the prevention of tooth decay:

York Review

- (1) *'Given the level of interest surrounding the issue of public water fluoridation, it is surprising to find that little high quality research has been undertaken... The scope of this review is not broad enough to answer independently the question should fluoridation be undertaken on a broad scale in the UK.'*

NHS Reviews and Dissemination, A Systematic Review of Water Fluoridation, The University of York, Report 18, 2000, pp xiv & 68

Brisbane Review

- (2) *'In 1991, the NHMRC Working Group called for a multidisciplinary group to investigate total fluoride intake in Australia, and examine the differences between fluoridated and unfluoridated areas. Many members of the Taskforce were dismayed that apparently, this research has still not been carried out. There can be no doubt that the absence of contemporary Australian research in respect of these important and legitimate concerns, whether as a result of lack of will or lack of resources, represented a serious impediment to the pro-fluoridation case.'*

The Lord Mayor's Taskforce on Fluoridation, Brisbane Report, 1997, p3

Being dispassionate, the Judge did not have all of the facts regarding the toxicity of fluoride in drinking water at his disposal. Nor could he know that the York Review would rule that the evidence for fluoride and its efficacy did not exist. Lord Jauncey therefore in his defence had to rely on anecdotal evidence from witness testimony. Realistically the Lord Justice could not have ruled on the toxicity of fluoride without prior knowledge of the National Research Council's Review completed in 2006, the first argument that fluoridation *'constituted a nuisance'* made by Mrs McColl (although legally valid) could not be proven as a 'fact'.

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Nevertheless it is surprising that the evidence of 8 Doctors and 1 Professor could not show that a 'potential risk' existed in context to water fluoridation. The presupposition is that Lord Jauncey must have thought that the evidence provided by the plaintiff was not only 'weak' but 'factually wrong'. This in itself is a highly unique and irregular set of circumstances. To emphasize, for the ruling to stand that fluoride did not constitute a nuisance, the judge had to disregard the evidence of 9 certified scientists. Extremely inconsistent, this is perhaps the first time ever within a legal framework that such a low 'burden of proof' was rejected on the grounds of the testimony of 9 senior specialists.

In the opinion of this author, the judge went beyond his legal powers and unduly exercised unfair discretion. This is because the establishment of 'potential risk' concerning fluoride was inferred by the number of experts, attendant at the trial. To illustrate, it can be argued quite reasonably that under the given circumstances it was entirely possible for 1 expert to be wrong, but for 9 different specialists working in separate fields to be completely incorrect in their evaluation of the evidence although feasible is extremely unlikely...

Furthermore, in this case it was not a legal requisite that the plaintiffs establish fluoride as 'harmful', only the presumption of an implicit risk was required. Lord Jauncey therefore in his powers was obligated by law to act decisively to nullify 'potential harm', irrespective of how 'small' that actual risk was. In short, his interpretation of the law was wrong. Lord Jauncey's peculiar decision of totally refusing the testimony of 9 independent experts, including the annulment of all of their claims, is under the context quite exceptional and is outlined in Lord Jauncey's ruling:

'Since I have reached the conclusion that there is no evidence to suggest that fluoride at the proposed concentration would have an adverse effect upon health it follows that the petitioner's case on nuisance as pleaded fails'.

Lord Jauncey, *Opinion of Lord Jauncey In Causa Mrs Catherine McColl (A.P) against Strathclyde Regional Council*. The Court of Session, Edinburgh, 1983

The summary of Lord Jauncey's opinions in causa therefore centres upon the quality of evidence brought before the Courts. Although controversial and contested by the plaintiff Mrs Catherine McColl, the argument advanced by Lord Jauncey's ruling today would not hold water. Times have changed and in light of the Judge's pre-emptive ruling, new evidence on the toxicity of fluoride shows that the case desperately needs to be revised. Fluoride is incontrovertibly illegal and we can now demonstrate that fluoride is a nuisance. This is because we have at our disposition the toxicological data regarding fluoride, and it is with these

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facts in mind that we shall revisit Lord Jauncey's, 'Summary of the Medical Evidence' and settle once and for all the case against fluoride.

Remember on these 8 points, the plaintiff only needs to uphold one of these factors for fluoride to be shown to be illegal, i.e. 'constitutes a nuisance' – in addition any ambiguity in data weighs in the plaintiff's favour. To emphasize we do not have to prove that fluoride categorically injures an individual at 1 part per million, rather the burden of proof is much less, all that is required is *that 'a potential danger to human health [exists]'* – The Water Supply Regulation Act 2003. Legally therefore the position of proof is not actually stipulated only an indication of 'relative risk' the 'potential' to cause harm. The fact that the US government lowered the levels of fluoride in drinking water for the first time in 50 years to 0.7mg indicates that the UK levels of fluoride at 1mg are illegal as they constitute unacceptable levels of risk. Let's then review the evidence:

Lord Jauncey's Summary of the Medical Evidence 1983
and the Opposite Legal Counterarguments Based Upon the Toxicological Data
of the National Research Council 2006

Lord Jauncey's Summary of the Medical Evidence 1983

1(a) 'Fluoride at a concentration of 1 ppm is not mutagenic'

National Research Council 2006

1(b) 'Mutagenic effects within fluoride have, to date, only been proven to exist in extremely high levels of exposures. Positive results in the human lymphocytes were seen at fluoride concentrations above 65 µg/mL (parts per million [ppm]) and generally at more than 200 µg/mL (much greater concentrations than those to which human cells in vivo typically would be exposed)'

National Research Council Report 2006, p262

In this example, the relative risks are not known. It is however plausible that a degree of risk is highlighted from the results and is also documented in the Quebec 'Ministerial Enquiry Into Fluoride', conducted in 1979, to quote:

'The mutagenic properties of fluoride have been demonstrated by experimentation carried under the strictest scientific conditions'

Ministerial Enquiry Into Fluoride, Quebec, 1979

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Lord Jauncey's Summary of the Medical Evidence 1983

2(a) *'No biochemical mechanism has been demonstrated whereby fluoride at a concentration of 1 ppm is likely to cause cancer or accelerate existing cancerous growth.'*

National Research Council 2006 / Harvard Study

2(b) A 500% increase risk of bone cancer in young boys living in fluoridated regions, a figure in America based upon the Harvard Study (Bassin, Cancer Causes and Control, 2006) referenced in the National Research Council Report.

To quote: *'A relatively large hospital-based case-control study of osteosarcoma and fluoride exposure ... the study will be an important addition to the fluoride database, because it will have exposure information on residence histories, water consumption, and assays of bone and toenails. The results of that study should help to identify what future research will be most useful in elucidating fluoride's carcinogenic potential.'*

National Research Council Report 2006, p8

In addition, the carcinogenic properties of fluoride at low levels of exposure have been known for a long time within medicine at least from the 1940s, to quote the Journal of American Medical Association:

'Fluorides are general protoplasmic poisons, with capacity to modify cell metabolism, changing the permeability of the cell membrane by inhibiting certain enzymes, Source of fluoride intoxication include drinking water containing 1ppm or more of fluorine.'

The Journal of American Medical Association, Sept 18th 1943

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Lord Jauncey's Summary of the Medical Evidence 1983

3(a) 'No association between fluoridation of water supplies and increased cancer death rates in the consumers has been demonstrated.'

National Research Council 2006 / ATSDR

3(b) 'The Agency for Toxic Substances and Disease Registry (ATSDR 2003) estimated that the ecologic studies performed to date for fluoride and cancer did not have sensitivities to detect less than 10% to 20% increases in cancer risk. Ecologic studies can be subject to large amounts of bias. Confounding factors and limited ability to control for such factors can be particularly serious problems.'

National Research Council Report 2006, pp274-275

To put it another way, in the worst case scenario a 1 in 5 increase in cancer based upon the best current statistical analysis techniques could easily be missed and not picked up upon in the medical community, in short a mini-holocaust. In numerous studies compiled throughout the world, an increase in mortality rates related to fluoride sits uncomfortably between 1% and 5% and in many studies is shown to hover dangerously around the 1% mark (Lynch, 1985). These results though compelling sit outside of what can be defined as statistically meaningful, e.g. around the 15% to 20% mark – and begs the real question what is the point of spending a lot of money to do a study from which the analysis of data according to the UK Medical Council is redundant and falls within the margin of error.

(* Refer to related post parenthesis comment below). Nevertheless, if relative risk cannot be ascertained, the level of danger cannot therefore be adequately managed under The Water Supply Regulation Act 2003. Put simply, if 'potential danger' cannot be ruled out, then the risk to 'human health' remains imminent.

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Lord Jauncey's Summary of the Medical Evidence 1983

4(a) *'There is no reason to anticipate that fluoride at a concentration of 1 ppm is likely to have an adverse effect upon the migration of leucocytes in the consumer.'*

National Research Council 2006 / Harvard Study

4(b) *'Fluoride at levels of 1.42 mg/day can affect the development of the growth and development of the skeleton and by implication the bone marrow where the leucocytes are formed. Fluoride is also shown to inhibit the correct functioning and signalling of cells, so although immunological risk is not fully accounted, the thesis is plausible.'*

Wilkinson, P.C., Effects of Fluoride on Locomotion of Human Blood Leucocytes in Vitro, Arch, Oral Biol, 28(5):415-418,1983

Lord Jauncey's Summary of the Medical Evidence 1983

5 (a) *'There is no reasonable likelihood that chronic renal failure patients drinking water fluoridated to 1 ppm will suffer harm.'*

National Research Council 2006

5(b) *'In patients with reduced renal function, the potential for fluoride accumulation in the skeleton is increased. It has been known for many years that people with renal insufficiency have elevated plasma fluoride concentrations compared with normal healthy persons (Hanhijarvi et al. 1972) and are at a higher risk of developing skeletal fluorosis (Juncos and Donadio 1972; Johnson et al. 1979)...'*

National Research Council Report, 2006, p140

In addition it is noted that within hot climates, renal patients are at an increased risk of fluorosis. The National Academy also expressed similar concerns and stated:

'exposure to 1 mg/L, particularly in some demographic subgroups... are prone to accumulate fluoride into their bones (e.g., people with renal disease)'

National Research Council Report, 2006, p6

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Lord Jauncey's Summary of the Medical Evidence 1983

6 (a) *'Fluoridation of water supplies in Strathclyde would be likely to reduce considerably the incidence of caries.'*

National Research Council 2006 / York Review 2000

6 (b) *'In such studies [detailing the rates of difference in fluoridated and non-fluoridated regions] it is not possible to tell whether the observed differences have always existed between [caries and their rates within] these populations or whether they are the result of the differing levels of water fluoride content between the study areas... The scope of this review is not broad enough to answer independently the question 'should fluoridation be undertaken on a broad scale in the UK'*

York Review, The University of York, 2000, pp24 & 68

We might add here that in the Largest comparative study on water fluoridation versus non-fluoridated regions in the European Union, the results from the World Health Organisation's own database 2012 suggests that fluoride increases the risk of tooth decay and are determined to have harmful effects on oral hygiene [See Table 3(b)].

More vociferous claims however are made by Professor Dr. Albert Schatz, Microbiology, Co-discover of Streptomycin Antibiotic, the Cure for Tuberculosis and Related Microbial Infections. In his own detailed research into fluoride, he states very clearly that:

'It is my best judgement, reached with a high degree of scientific certainty that fluoridation is an invalid theory and ineffective in practice as a preventative of dental carries. It is dangerous to the health of consumers'

Medical Article, Dr. Schatz A., Increased Death Rates in Chile Associated with Artificial Fluoride in Drinking Water, with Implications for Other Countries, Anthony University Jour Of Arts Science and Humanities, 2:1, 1976

Professor Dr. Albert Schatz also made sworn testimonies in court giving evidence, regarding the exponential infant mortality rate within Chile that he insisted was due to the introduction of water fluoridation. Once again this early evaluation of fluoride and its negative effects upon dental health is a medical position that is reinforced by the National Research Council and the World Health Organisation's published data.

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Lord Jauncey's Summary of the Medical Evidence 1983

7(a) 'Such fluoridation would be likely to produce a very small increase in the prevalence of dental mottling which would only be noticeable at very close quarters and would be very unlikely to create any aesthetic problems.'

Academic Review of the Research Council Report 2006

7(b) 'Moderate dental fluorosis is an adverse health effect occurring at fluoride levels of 0.7–1.2 mg/L, the levels of water fluoridation.'

Robert J Carton, Ph.D., Academic Review of the Research Council Report, p171

Lord Jauncey's Summary of the Medical Evidence 1983

8 (a) The present low levels of fluoride in the water supplies in Strathclyde do not cause caries.

National Research Council 2006 /JADA

8 (b) 'One of the functions of tooth enamel is to protect the dentin and, ultimately, the pulp from decay and infection. Severe enamel fluorosis compromises that health-protective function by causing structural damage to the tooth. The damage to teeth caused by severe enamel fluorosis is a toxic effect that is consistent with prevailing risk assessment definitions of adverse health effects. This view is supported by the clinical practice of filling enamel pits in patients with severe enamel fluorosis and restoring the affected teeth. Moreover, the plausible hypothesis concerning elevated frequency of caries in persons with severe enamel fluorosis has been accepted by some authorities, and the available evidence is mixed but generally supportive. Severe enamel fluorosis occurs at an appreciable frequency, approximately 10% on average, among children in U.S. communities with water fluoride concentrations at or near the current MCLG of 4 mg/L.'

National Research Council Report, 2006, p3

Summarised alternatively in the words of the Journal of the American Dental Association in 1944:

'... the potentialities for harm from fluoridation far outweigh those for the good.'

Journal of American Dental Association, Editorial 1944

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On the 8 points from Lord Jauncey's judgement, we can see that within each summary when the new data is applied, Jauncey's criteria can either be systematically challenged or the information presented indicates a 'real risk'. The whole subject of 'potential harm' is of course highlighted in section 3(b) of the above table (Please refer to relevant section), regarding the counterargument for Lord Jauncey's Summary.

In part 3(b), * of the previous table, it is argued that demographic statistics are inadequate for defining levels of risk. There are a number of sensible issues that should be applied legally to the interpretation of data to prevent harm particularly the concerns regarding statistical analysis and its limitations at outlining accurately levels of uncertainty. Adequate provisions should therefore be in place to balance risk against factors of probability that could unintentionally have an adverse effect upon the population. To avoid this precarious situation, certain underlying circumstances should always be accommodated within statistical variance, for instance in order to militate against potential risk, the highest figure range within any study should always be adopted as a matter of cause. This is not only practical, but arguably is also a legal requirement of the law and its interpretation of 'potential harm'.

As already explained, there are a number of weaknesses inherent within statistical analysis. For example, in smaller figures of around the 1-5% margin, the reviewers generally round down the figure to a zero risk. Mathematically the predicted statistics are said to be only accurate within a margin of 20%, when dealing with complex probabilities with multiple variables. This number of 20% however leads us to another major problem. For example, if we utilize the results provided by the York Review, summarised in the Medical Council Report of 2002, the glaring contradictions begin to become more evident:

'The change in the prevalence of dental caries was an estimated 15% increase in the proportion of subjects with no dental caries and a decrease of 2.2 in the mean number of decayed, missing or filled teeth (DMFT).'

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p18

In other words, the figure 15% is below the threshold – the number or margin that mathematicians can detect accurately statistical probability when all variables are modified and accounted for. The results of the Medical Council suggest the figures are not statistically significant and do not stand up to scrutiny. It is therefore impossible to make an objective analysis that utilizes this model of calculation at the best it offers a tool to make predictions. These sums are dependent upon 'approximations', thus the increase in 15% with no dental caries is an 'estimate' and in the words of the York Report...

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'this value should be interpreted with extreme caution'. The number looks good on paper, but is of no practical value, to predict policy. Similar statistically significant figures are also found in many test studies that question the prevalent belief that fluoride is beneficial for oral hygiene.

If, for the sake of argument, we give the Medical Council the benefit of doubt and 'allow' the figure 15%, the number that we should *'interpret with extreme caution'* and add our own non-significant figures into the mix – then the increase in mortality rates is actually shown to be 1.25%, a result observed by Dr. Yang's Systematic Study in 2000. Both figures are equally sound (or non-valid, dependent upon one's model). In this scenario, 15 % of Wakefield will have less caries with a slight increase in mortality of 1.3%. In terms of getting all of the variables right, the careful balance between effective and toxic doses of fluoride is of the upmost importance, particularly with regards to public health and the rationale of fluoridation. The perilous position between *'effective dose'* and *'toxic dose'* is explicitly stated in the Working Group Report from the Medical Council, 2002:

'With regard to dental caries and fluorosis, fluoride has a relatively low therapeutic ratio' (the ratio between biologically effective dose and toxic dose). There is a need to address the aggregate rate of accumulation of fluoride in target tissues and assess whether this is fast enough to incur the risk of pathology within a reasonable life span in more than a small (and defined) minority of those exposed'.

Working Group Report, Water Fluoridation and Health, Medical Research Council, 2002, p15

In the words of the UK Medical Council in 2002, fluoride *'has a relatively low therapeutic ratio'*. To be critical, I am not sure how the Medical Council came to this conclusion, because the York Report could not find the data to establish the 'therapeutic values' within a significant margin of error, in their own words *'the result should be treated with extreme caution'*.

How therefore do we satisfactorily address *'the ratio between biologically effective dose and toxic dose'* in particular when the ability to 'dose' ourselves with 'fluoride' is administered by the state and not the individual? The potential outcome for the wrong measurement is explicitly stated in the Medical Council Report as a *'toxic dose'* in other words a 'poison'. Even the relative risk to the individual has, to date, not been calculated properly by the UK Medical Council.

Of particular concern, the Working Group Report did not, nor could they identify what the optimum dose of 'fluoride' is. All the Review could do is to acknowledge that a theoretical ratio exists between *[a] biologically effective dose and toxic*

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dose. More worrisome, the report could not work out if *'the aggregate rate of accumulation of fluoride in target tissues... is fast enough to incur the risk of pathology within a reasonable life span in more than a small (and defined) minority of those exposed'*.

In other words, if we render this into plain English, the UK Medical Council could not determine if the majority of the population would become sick due to the introduction of fluoride accumulated over a lifetime. The question of an 'effective dose and a toxic dose' does not in fairness tackle the argument properly of what a 'correct dose' is... In short the Working Group says that fluoride is good for you, even when it is bad! This argumentation is impossible to refute and can never be subject to a test or criticism. All we can say with any degree of certainty is in the words of the UK Council *'fluoride has a relatively low 'therapeutic ratio' (the ratio between biologically effective dose and toxic dose)'*.

This volatile model is referred to by the World Health Organisation as the *'fluoride paradox'*. Recalcitrant, the definition of the *'fluoride paradox'* has been disproven statistically by the same published figures of the World Health Organisation 2012. These summaries categorically prove that higher rates of decay are blatant in fluoridated countries, refer to Appendix 1(b).

The general conclusion of the Working Group Report is that if there is a perceived risk, ignore it! On page 14 in their summary of 'Gaps in the Evidence' (oh really!), the committee members admitted *'There are very few data relating total fluoride exposure to health effects'*. The question to the Medical Council then is why advocate a treatment in which there is little data pertaining to hazardous effects of fluoride?

If we are a little more discerning however, we will note that the UK Medical Council's point is simply not true! There is an accruing amount of evidence regarding toxicological studies and most of this data is published and in the public domain. Much of this evidence can be found in the American National Research Council Report on fluoride that examines specifically the question of fluoride toxicity. The real issue of fluoride as an agent that can cause physical harm at levels introduced into the water supplies lead us on neatly to the argument whether fluoride poses a 'potential risk'. On the NHS website, there is a surfeit of reassurances about fluoride, typical statements include:

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(1) *'Overall, the study [which study?] lends support to the positive effects of water fluoridation on dental health among young children. However, firmer conclusions on possible wider health effects cannot be made.'*

(2) *'England provides a unique "test-bed" to study the effects of fluoride. This is because unlike many other developed nations, there has been no mass fluoridation of water at a national level.'*

NHS Choices, Website

In criticism to the NHS, first of all young children should never have fluoride, and on most toothpaste packaging, it states clearly that infants should be over the age of 2. Even a lot of conventional research suggests that children under 4 should not be subjected to any fluoride. The NHS should know better, as exposure of young children to fluoridated toothpaste often leads to fluorosis.

Secondly, it is all well arguing that fluoridation offers a 'test-bed' to study the effects of fluoride, but these 'tests' are illegal and can also cause serious side effects and even death. To repeat, if *'firmer conclusions on possible wider health effects cannot be made*, in the words of the NHS, then the risk assessment concerning the fluoridation of water is invalid and is therefore illegal. Fluoride constitutes a potential harm and it cannot be insured against indemnity. The NHS as a care of duty, and is outlined in the 1977 National Health Service Act:

'[The Act] charges the Secretary of State with a duty to provide healthcare to the public. Healthcare professionals by virtue of their relationship with the patient and their employment within the NHS owe a duty of care to the patient. A duty of care is expected of all care and is expected of all practitioners and is both a professional and legal obligation... A duty of care encompasses avoiding actions and omissions that are reasonably likely to cause harm to the patient.'

1977 National Health Service Act

Set down within the Act, the Secretary of State is charged *'with a duty to provide healthcare to the public... A duty of care encompasses avoiding actions and omissions that are reasonably likely to cause harm to the patient'*. As drafted in the Articles the Secretary of State by supporting fluoridation is breaking the law. This is because by doing so, the Secretary of State is advocating illegally to conduct a *'test-bed study'* on a wide group of patients from all ages and medical backgrounds without their complicit agreement, a study that is 'potentially harmful'.

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To emphasize, fluoride is a known toxin and is associated with dental and skeletal fluorosis. These adverse 'health effects' are proven to occur at 1 parts per million, in addition in the largest systematic study of the UK population by Professor Peckham, the academic showed conclusively a 30% increase in thyroid problems. The data is also in keeping with the American National Research Council material that indicated a possible reduction in the IQs of children exposed to fluoride.

In fact, we can go one step further down the rabbit hole, and argue that the NHS as a care of duty to stand against the Secretary of State's proposals for the fluoridation of water, and by electing not to do so, is an 'omission of [care] that is reasonably likely to cause harm to the patient'... This harm is known to exist and is quoted in the House of Commons Library Report on Fluoridation:

'The prevalence of fluorosis at a water fluoride level of 1.0 ppm was estimated to be 48% [...] and for fluorosis of aesthetic concern it was predicted to be 12.5%'

Oliver Bennett, Library House of Commons Report, Fluoridation, Science and Environment, SN/SC/5689, 2 September 2013, p5

The admonishment that fluorosis occurs in 48% of the population brings the government to yet another standstill. Clear evidence demonstrates that the policy of fluoridation on these grounds alone is unlawful and furthermore is a policy that is provably having a negative effect on the general wellbeing, in the words of the American National Research Council:

'The damage to teeth caused by severe enamel fluorosis is a toxic effect that the majority of the committee judged to be consistent with prevailing risk assessment definitions of adverse health effects'.

Fluoride in Drinking Water, A Scientific Review of the Environmental Protection Agency's Standards, National Research Council, National Academies, Washington DC, 2006, p104

In other words, fluoridation is linked to toxicological and adverse health effects, that are not permitted under the law. This brings me back to the disconsolate point that the NHS thinks that a medical 'test-bed' study on human subjects is acceptable or legal within the apparatus of the law, which of course it is not. The standards and code of conduct on human subjects are framed within the Helsinki Declaration, to quote Sections 3,7,8 and 9:

Helsinki General Principles:

(3) The Declaration of Geneva of the WMA [World Medical Association] binds the physician with the words, "The health of my patient will be my first consideration," and the International Code of Medical Ethics declares that,

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“A physician [e.g. Public Healthcare England] shall act in the patient’s best interest when providing medical care”.

(7) Medical research is subject to ethical standards that promote and ensure respect for all human subjects and protect their health and rights.

(8) While the primary purpose of medical research is to generate new knowledge, this goal can never take precedence over the rights and interests of individual research subjects.

(9) It is the duty of physicians who are involved in medical research to protect the life, health, dignity, integrity, right to self determination, privacy, and confidentiality of personal information of research subjects. The responsibility for the protection of research subjects must always rest with the physician or other health care professionals and never with the research subjects, even though they have given consent.

World Medical Association Declaration of Helsinki, Ethical Principles for Medical Research, Involving Human Subjects, World Medical Association, E1

The Declaration of Helsinki is crystal clear and is written out in black and white. Without wishing to sound too glib, the NHS’s position that the UK should be at the forefront of medical research by testing the efficacy of fluoride on large numbers of people violates the Helsinki agreement. Medical research should protect the *‘...health and rights of the subject. The goal is to gain new knowledge, but must never supercede the rights of the individuals’*.

Dependent upon this fundamental constitution is the right to *‘self-determination’* which is an unsalable Human Right. In this treaty, the responsibility for the protection of research subjects is the ‘physician’, collectively the NHS or Public Health England and the research must first and foremost be based upon ‘consent’, a position acknowledged by the Hague Government in 1973 that banned fluoridation on these grounds. The unethical emphasis of the UK Council to weigh up *‘the ratio between biologically effective doses [of fluoride against] toxic dose[s]’* is illegal and violates the first principle of the Human Rights Act Article 2:

Article 2 – Right to Life

(1) Everyone’s right to life shall be protected by law.

The Declaration of Human Rights, Article 2, United Nations, 1948

This brings us back to the issue of ‘wholesome water’ that under state sanctioned law is afforded absolute protection as an inviolable Human Right, and in the words of Lord Jauncey is a minimum statute or an ‘ultra vires’ (a law that goes

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beyond one's legal power of authority). The issue of Human Rights is of paramount importance, and concerns also the interpretation of the UK Water Supply (Water Quality) Regulation of 2000, Statutory Instruments, to quote:

PART III, WHOLESOMENESS (Section 4 Subsection 2)

Wholesomeness: (drinking, cooking and washing)

(2) The requirements of this paragraph are—

(a) that the water does not contain—

(i) any micro-organism (other than a parameter) or parasite; or

(ii) any substance (other than a parameter), at a concentration or value which would constitute a potential danger to human health;

(b) that the water does not contain any substance (whether or not a parameter) at a concentration or value which, in conjunction with any other substance it contains (whether or not a parameter) would constitute a potential danger to human health.

The Water Supply (Water Quality) Regulation 2000, Statutory Instruments, No. 3184, p 6

To repeat, the law requires that drinking water is 'wholesome and clean', fit for drinking, cooking and washing. Water also has to be free from any other substances, a stipulation encoded in the EU Directive (98/83/EC) to quote:

'Water is free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health'

EU Drinking Water Directive (98/83/EC)

Stringent, the Directive is clear; it states any substances, which constitutes 'a potential danger to human health' is illegal. Unequivocal, the requirement in this mandate is explicit. Precautionary, so as to protect 'human health' the European Directive does not state in its draft that there is a need to avoid 'absolute risk to human health'. This requirement under the current legislation is not necessary rather the objective is to avoid only 'potential danger'. Therefore (pretending for one moment that a 'controversy' exists regarding the 'advantages' and 'disadvantages' of fluoride), the Secretary of State is still judicially at an impasse and cannot insert himself into the bill without legal amendment.

This is because the nature of that risk, more accurately the 'relative risk', cannot be safely determined and therefore in turn cannot be implemented lawfully. This is clearly stated in the EU Water Directive (98/83/EC). For such a prerequisite, the law would have to be revised. According to the National Research Council's

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Review of their earlier Environmental Protection Agency's Report in 2006, the American Academy's own ideal recommendations of fluoride levels in water is stated as *'The Maximum Contaminant Level Goal (MCLG)... [which] is zero'*.

If we use the template of the National Research Council, then the introduction of fluoride into water is even more problematic within the enactment of the law. This is because the parameter or goal has moved from a hypothetical position encompassing an 'academic controversy' to a solidified argument of 'scientific certitude'. Concrete, the National Research Council have identified over 40 diseases associated with water fluoridation at or around 1 part per million. Extremely negative these side effects can be quickly summarised as:

Fluoride Dose Ratios Relative to Evidence of Disease

Decreased thyroid function	(0.7ppm)
Skeletal and Dental Fluorosis	(1ppm)
Musculo Disorders	(1ppm)
Glucose tolerance impairment	(1mg/L)
Neurotoxicity to the brain	1mg/L

To draw attention to the underlying argument regarding fluoride restrictions within the law is not difficult. This is because we know of the toxicological effects of fluoride that are documented within the NRC Report 2006. Non-compliance to the Statutory Instruments of the Water Act 2000 is a violation of the principle to provide 'clean and wholesome' water. The 'addition' to the 'whole-some' component of 'water' is not permitted into the supply chain.

A pollutant fluoride is not a 'treatment', but is a 'toxicant' with serious side effects. The ingredient has terminal health consequences that under the current law is illegal. In the concise words of the UK Medical Council, *'fluoride has a relatively low therapeutic ratio (the ratio between biologically effective dose and toxic dose'*. In addition, the 'potential risks' regarding the toxic dose at 1ppm are not a question of debate, but are known and documented empirically.

The law is the law, and if YPAF (Yorkshire People Against Fluoride) is taken to task and is forced into a position of court proceedings, then identified members who are given the responsibility to make executive decisions on fluoridation schemes will be jailed. This is not idle speculation but is a requirement of the law. To reiterate, although the government and their regulatory bodies offer council, it is the responsibility of those individuals tasked with taking the decision to weigh up the expert advice, moreover these recommendations given by executive committees can frequently be wrong.

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Being nescience is no defence against culpability, this is because the law does not allow for 'potential risk', it requires that the public are safeguarded.

Consultation therefore received from the government and its advisory boards are only implicit and not definitive. The government's statements on the safety of fluoride are not legally binding until tested in court – and what is more, in Scotland fluoride has been sanctioned as an illicit substance. The 'Test Case' of Strathclyde Council has proven (at least in theory) that fluoride should be prohibited as unlawful.

The local authorities have to be careful not to be misled by government rhetoric, and carefully examine duplicitous language contained in many reports outlining the safety of fluoride. The statement in the summaries of the Royal College of Physicians is a good example of an Advisory Committee, that in their role have made some very potentially ambiguous declarations concerning fluoride, in their publications, to quote:

'There is no evidence that the consumption of water containing approximately 1ppm of fluoride in a temperate climate is associated with any harmful effects, irrespective of the hardness of the water.'

A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation, p6

Typical of the machinations of a report commission for purpose, the apparently innocuous assertion from the Royal College is misleading. On closer examination, the assurances can be contested. This is because the physicians only offer protection from the harmful effects of fluoride in *'temperate climate[s]'*, so for example in a hotter environment, such as a tropical climate – there is no proviso to cover potential harm.

The subtext of this deceptive statement is that sensitive groups such as lactating mothers, small children, and adults on a hot sunny day may inadvertently consume larger amounts of fluoride that are not at 'optimal levels' for the prevention of caries and risk aversion, measured by their own criteria. On the issue of the Royal College of Physicians' statement highlighting no risk associated with fluoride in doses of 1 particle per million, their stance is completely wrong. Particularly when considering the added risk of additional contamination from toothpaste.

The issue of harm then brings us back to the subject of potential risk and the law. The EU Water Directive mandates that *'Water is free from... any substances which, in numbers or concentrations, constitute a potential danger to human health'*. There are no added provisions to this clause, it does not state that it is permissible to fluoridate water without avoiding 'potential risk' – this

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position is illegal, as are the fluoridation schemes in the UK that currently are using illegal human ‘test subjects’ in the words of NHS Choice England ‘to/ provides a unique “test-bed” to study the effects of fluoride’.

The list of harmful effects of fluoride and their relatively small doses are known – and the illegal position of fluoridation that is currently injuring UK citizens is wrong and morally indefensible. Looking at the legislation, it is not a question of if the government will be taken to task over this gross violation of constitutional law, but a matter of when?

Thus the local authority needs to be clear when entering the legal arena about the ‘level’ of danger – if we adopt a neutral position on fluoride and maintain the consensus that none of the experts agree... then the profound lack of coherency within the scientific discourse on fluoride is legally ‘proscriptive’.

The case of law is clear – in the context of uninformed opinion, there is no legal ambiguity, because the burden of proof required for the anti-fluoride campaign is currently very low. Factually the law does not require ourselves to validate the experts opinions ‘for’ or ‘against’ fluoride, what is required is to establish if fluoridation *‘constitute[s] a potential danger to human health’*. Until the experts agree on this – the law is emphatic and protects human life by exercising due care and diligence. In short the law legislates to avoid contamination, thus to avert ‘potential risk’ perceived or otherwise.

One of the main problems of resolving academic controversy is that if fluoride is shown to be detrimental to human health at the current levels of exposure in the UK, the outcome for the government, industry, and of the pharmaceutical companies will result in the payment of billions of pounds in damages, including massive costs for the cleanup of the environment. How then can we trust the government and its auxiliaries, the pharmaceutical and industrial companies to come up with the correct answer? They cannot afford to be neutral...

How then do we mitigate against ‘relative risk’ when the risk factor though documented in medical literature is not even acceded to by the government’s own advisory bodies? This risk factor, although legitimate, has for the most part been totally ignored or vilified. Furthermore the government’s dubious position that fluoride is ‘safe’ within a small margin of error is not good enough in terms of ‘potential harm’!

Let’s therefore look at the discussion that fluoride is *‘relatively safe’* or *‘is thought to be generally safe’*. This of course is a faulty premise and is a very weak basis to inform an argument. To illustrate, we need to be more than clear,

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if for example the statistical data is wrong by just a fraction, Wakefield could be looking at an epidemic. Even more disturbingly Wakefield National Health may not have the expertise to detect the slight statistical anomaly of increased injuries sustained directly or indirectly through fluoridation. This ‘uncertainty principle’ known otherwise as the ‘fluoride paradox’ in the opinion of the author of this report demonstrates the problematic legal status of fluoride treatment schemes that are dependent upon ‘risk assessments’ and ‘estimations’. The ‘real risk’ however is not known and is therefore not amenable to the definition of the law.

Furthermore the National Research Council’s Report and its summary of fluoride and its toxicological measurement relative to risk and the eruption of disease is important. This is because the results conclusively demonstrate that adding fluoride at levels of 1 part per million or less is injurious to public health and reinforces the argument that such procedures under the governing European and UK legislation are illegal.

Under the guidelines of the Health and Safety Act 2015 Chapter 28, it is fair to assume that the local population and the preservation of oral hygiene via a continued course of ‘treatment’ or ‘drug’ is legally dependent upon the care and trust of the local authority. The local committee therefore are mandated to reduce harm under local ‘care’, an allocation defined in the words of the Oxford dictionary as:

Care:

- (1) *‘The provision of what is necessary for the health, welfare, maintenance and protection of someone or something, e.g. ‘healthcare’ or-:*
- (2) *‘Serious attention or consideration applied to do something correctly or to avoid damage or risk’.*

Oxford Dictionary of English, 2e Revised, Oxford University Press, 2005, [Care]

In the case of water ‘treatment’ – the actual or potential ill effects or danger associated with fluoride has severe limitations for the Health and Safety Act 2015 Section 1. This provision stipulates the Authority’s requirements when administrating care, to quote:

Section 1: Reducing Harm in Care

‘The Secretary of State must by regulations impose requirements that the Secretary of State considers necessary to secure that services provided [e.g. the administering of fluoride] in the carrying on of regulated activities cause no avoidable harm to the persons for whom the services are provided’.

Health and Safety Act 2015, Section 1, c28, p1

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The definition is very clear, to *'cause no avoidable harm'* – we know from the UK's own data that fluoridation causes fluorosis in children and therefore that sub-sections of the population go on to develop health symptoms associated with fluoride. This is not conjecture but is an accepted fact and is documented in the House of Common Library Report to quote:

'The prevalence of fluorosis is typically 3 – 4% higher in fluoridated areas.'

Oliver Bennett, Library House of Commons Report, Fluoridation,
Science and Environment, SN/SC/5689, 2 September 2013, p9

The Article of Law continues with the definition as laid out by the Secretary of State and defines 'cause' as:

5(a) 'cause' means cause or contribute to, whether directly or indirectly; and harm is avoidable, in relation to a service',...

Health and Safety Act 2015, Section 1 c28, Subsection (5a)

In this explication, harm does not have to be caused by a service but could be 'indirect', for example not identifying risk in susceptible populations. The law states that services have to act to avoid harm, thus provision should be met with regards to filtering water supplies containing fluoride to prevent exposure in the young, elderly or sick population. There is however an exception to 'cause' which can be invoked under article 5(b):

5(b) '...unless the person providing the service cannot reasonably avoid it (whether because it is an inherent part or risk of a regulated activity or for another reason).'

Health and Safety Act 2015, Section 1 c28, Subsection (5b)

Now the problem with invoking this article with regards to fluoridation is

- (1) The person supplying the water can first of all reasonably circumvent the risk by avoiding fluoridation
- (2) The European Laws on water does not permit the use of this article with regards to substances that constitute a potential danger.

To recap:

'Water [should be] free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health.'

EU Drinking Water Directive (98/83/EC)

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In other words, the law already presupposes that water is clean from contamination and is not harmful to drink – elevation of potential risk even in subgroups of the population is not permitted. This now brings us up to date with Part 9 of the Health and Social Act 2012, and its relevant amendments Health and Adult Social Care Services 2015: information-

251B: Duty to Share Information

3a) 'likely to facilitate the provision to the individual of health services'...

3b) 'in the individual's best interests'.

Health and Social Care (Safety and Quality) Act 2015 3(a) and 3(b) (Amended),
Part 9 of the Health and Social Care Act 2012, p3

In the case of fluoridation, the subsection is stating that the Health Service or the legal body responsible for administering a health or social care have a responsibility to communicate information to all third parties, so as to facilitate proper provision. In other words, there is a duty of care to share information if it is in the individual's best interests, and would include exchanging information about vulnerable subgroups such as the young and elderly in particular the avoidance of excessive fluoride consumption – the disclosure of that information could be through a Doctor or through the council or an intermediary, but the spirit of the article is to ensure that a third party adequately communicates information to individuals that may have an impact upon their welfare and wellbeing, to quote:

'The relevant person must ensure that the information is disclosed to—

2(a) persons working for the relevant person, and

2(b) any other relevant health or adult social care commissioner or provider with whom the relevant person communicates about the individual'.

Health and Social Care (Safety and Quality) Act 2015 2(a) and 2(b),
Part 9 of the Health and Social Care Act 2012, p2

In other words, a responsibility lies upon the relevant authority in which for example the administering of health care and relevant information associated should be 'direct', targeted specifically for the individual. In particular tailored to their needs, from the point of access of medical care, it does not theoretically allow healthcare to be 'indirect' or 'without consent', without further modification of the law by the Secretary of State, to quote 251C Continuity of Information: Interpretation Section 5:

'A reference to an inclusion or a disclosure being likely to facilitate the provision to an individual of health services or adult social care in England is to its being likely to facilitate that provision directly (rather

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than by means of a clinical trial, a study, an audit, or any other indirect means)’.

Health and Social Care (Safety and Quality) Act 2015, Interpretation 4, Section 251C, p4

To rephrase, the disclosure of services to safeguard the individual’s best interests must be communicated to third parties with the emphasis on declaration of information to the client receiving treatment to engender legal authorisation and consensual agreement. The intention of the Article of Law is to preserve human life and is emphasized in Section 5 on the Objectives of the Act, and is also repeated in Section 25 of the National Health Service Reform and Health Care Professions Act 2002 (Professional Standards Authority for Health and Social Care):

2(A): ‘The over-arching objective of the Authority in exercising its functions under subsection (2)(b) to (d) is the protection of the public’.

2(B): ‘The pursuit by the Authority of its over-arching objective involves the pursuit of the following objectives’—

2(B)a: to protect, promote and maintain the health, safety and wellbeing of the public’...

Health and Social Care (Safety and Quality) Act 2015, Objectives 5(1), 2(A)-2(B) and 2(B)a, p5

The protection of the public for example with health care can only be maintained if there is a consensus on how to treat tooth decay. The drafting of this law effectively circumvents the Human Rights Act and is suspect, Article 2(1):

‘Everyone’s Right to Life Shall be Protected by Law’.

The Declaration of Human Rights, Article 2(1), United Nations, 1948

To emphasize, the Human Rights Article is clear, it does not permit *‘over-arching objectives to protect the public’* in the words of the National Health Reform, rather the emphasis is on the inalienable rights of the ‘individual’ singularly the ‘Right to Life’, not just the ‘Public’s Right to Life’. Why does this matter, because if we protect the ‘public’, we only need to ensure the wellbeing of 51% of the general population to be sheltered from harm, whereas everyone’s Right to Life protects 100% of the population.

In addition when we get down to the basic draft of the law, the definition of ‘public’ theoretically excludes ‘children’ as the etymology ‘publicus’ (of the people – specifies an adult), Latin ‘pubes’ (an adult). The law under the National Health Service Reform offers no legal protection for children – which when viewed in the

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bigger picture of European Law is illegal. The contradiction is acknowledged by degree in the Medical Products Legal Framework covered under the drafted Articles in the European Union, The Legal Framework for Medicines for Humans, an in Depth Analysis, 2015:

3.2 Paediatric medicines

Medicinal products for paediatric use (i.e. medicines for use in children) are governed by Regulation (EC) No 1901/2006. The Regulation also sets up a Paediatric Committee, which is responsible for giving opinions on medicines for use in children. The Regulation is seen as bridging a gap, namely the lack of a sufficient number of suitable, authorised medicines for treating children: as pharmaceutical companies frequently have not conducted sufficient research and development to meet the specific therapeutic needs of children.

Nicole Scholz, European Parliamentary Research Service, Medical Products in the European Union, The Legal Framework for Medicines for Humans, an in Depth Analysis, 2015, p15

The review of fluoridation within the paediatric population becomes of paramount importance. We can note that the amendment of the law from the National Health Service Reform regarding the preservation of the ‘public’ makes sense from a strategic position. For example, such an argument could be used to safeguard the implementation of fluoridation schemes that in particular are shown to harm children’s teeth through the process of fluorosis. Under the definition of the Article ‘Public Health’ only the teeth of adult’s are protected legally from the harmful effects of fluorosis – and is reflected within the redrafting of the Dentist’s Act, Section 5, Objectives of Regulators of Health and Social Care Professions:

General Dental Council

1 (1) ‘The Dentists Act 1984 is amended as follows.

(2) In section 1 (constitution and general duties of the General Dental Council)—

(a) after subsection (1) insert—

(1ZA) The over-arching objective of the Council in exercising their functions under this Act is the protection of the public.

(1ZB) The pursuit by the Council of their over-arching objective involves the pursuit of the following objectives—

(a) to protect, promote and maintain the health, safety and well-being of the public....

Health and Social Care (Safety and Quality) Act 2015, Chapter 28, Objectives of Regulators of Health and Social Care Professions, General Dental Council, Section 5, p7

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The move away from the ‘individual’ to safe guarding the ‘public’, and thus by definition the ‘collective adult population’ is not a legally binding precept – and although clever in its formulation is not an argument that the legal courts would accept and is furthermore acknowledged in the wording of the Article that is laid out as an OBJECTIVE, e.g. the provision of ‘public health’ is an aim or goal of regulators of Health and Social Care Professions – It is however to emphasize not a legal stipulation. In summary, this is the authorised hoodwinking of the medical professions to service the pharmaceutical interests of multinational companies at the expense of the ‘individual health’, the cornerstone of ‘Human Rights’, to quote the Objectives of Regulators of Health and Social Care Professions Sections 1ZB (a):

General Dental Council

‘to protect, promote and maintain the health, safety and wellbeing of the public’.

Health and Social Care (Safety and Quality) Act 2015, Chapter 28, Objectives of Regulators of Health and Social Care Professions, General Dental Council, Section 5, p7

This according to the Objective of the Article prescribed though not strictly legal can be read to be interpreted as the following proposal: The Dental Act does not provide provision for protecting children’s teeth, a subgroup of the population that are shown to be vulnerable to the effects of fluorosis. The objective of this enactment is only to safeguard the majority of the adult population.

In summary, we must protect the liberty of the individual for the general wellbeing and maintenance of ‘public health’. Public health however is not a means to an end, and should never infringe upon the choice of the cognizant individual the power to ‘choose’ is a fundamental ‘Human Right’ that should be protected and enshrined within the constitution of the state. Public health is being used to spearhead some very dubious policies justified under ‘common purpose’ and when we factor children into the equation is actually shown to be servicing the minority of the population. As the drafting of public health is an objective and not the law, we can see that these proposals promoted under Public Health England are not worth the paper they are written on.

The fact is with regards to the fluoridation issue senior health care practitioners do not unanimously agree on fluoride, there is no consensus under the rubric of public health. The uncomfortable position then that we move towards within modern healthcare is the difficult question, with which we are now all faced with:

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Is medicine going to move towards a technocratic society in which over 'paid' scientists servicing the medical sector are left to decide on policy? From which non-uniformity of medical opinion is either ignored, (disputed through 'public' though not 'medical' or 'scientific' bodies) or punished. In this dystopian model, the Doctors and scientists are essentially the marketers that front large pharmaceutical companies, organisations that preside over the 'public interest' – technically the 51% of society (excluding children). An autocracy that can medically enforce non-medical interventions upon the population!

Wakeup NHS England! – We need healthcare and legal practitioners to stand up to this intimidation and bullying! The National Health Service Reforms are neither legal, professional nor morally acceptable and should be actively opposed before the 'objectives of the regulators' become written in law!

In general, we need active and vocal opposition – people willing to step forward and challenge the 'institutional blindness' that to the layman appears on close inspection to be endemic within the healthcare professions. This resistance needs to be articulated firmly and set out in writing by medical jurisprudence – legislation that will ensure the continuation of scientific debate and perhaps more importantly dissent from within medicine and the health care practices. From this grassroots movement, positive change can evolve and grow.

The disagreement in opinion within scientific knowledge is not a dereliction of care it is a fundamental 'right' and calls upon multiple disciplinary expertise within the profession. The right to call to question prevailing wisdom needs to be protected or at the very least separate from industrial interests. Robust debate is the 'safeguard' that the general 'public' expect and is a safety mechanism that protects the people. This discourse however should be based upon science and not the protection of large corporate conglomerates hiding behind 'public health', to recall Directive 2001/82/EC, Sections 2 and 3, to quote:

(2) 'The essential aim of any rules governing the production, distribution and use of medicinal products must be to safeguard public health'.

(3) 'However, this objective must be attained by means which will not hinder the development of the pharmaceutical industry or trade in medicinal products within the Community'.

Directive 2001/83/EC of The European Parliament and of The Council of 6 November 2001 on the Community Code Relating to Medicine Products for Human Use

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Potentially minacious, these objectives are for now luckily only Directives (to guide or put straight) and although an 'instruction' is not technically the Law. Ultimately intellectual freedom elicits the general wellbeing of the 'individual', and by extension the 'collective'. In short, we need to afford the Freedom of Speech, the right for medical studies to contradict perceived wisdom, without professional retribution or sanctions. Science in the 21st Century must be 'transformative' and thereby reflect human ingenuity, a renaissance in learning expedited through research and the legal rights of the individual.

Medical excellence is dependent upon the preservation of the 'individual' and although important the maintenance of the 'public' is of secondary interest, because if we undermine the 'individual' at the expense of the 'public', the bar for distinction in medicine immediately drops. Medical researchers in their obligations and financial edicts no longer quantify drugs against the 'best' current medicines available on the market.

If we accept 'public health', the primary objective immediately changes, from which the evaluation of a drug trial and its effectiveness is measured not against the 'best' medicine, but against the 'placebo'. The general outcome is that the weight of proof becomes less. In this skewed paradigm, the 'public' benefit outweighs the 'individual', Latin 'in-dividere' (literally not to divide). From the listed criteria of the 'regulatory objectives', the 'divisible' risk of the 'individual' is allotted and permitted. In this model, 'fluoride' serves the 'public good' and is construed upon the utilitarian philosophy of 'common good' versus the 'individual'. The principles of elevating the 'public' over the 'individual' is economically motivated through greed, furthermore it is not a sustainable model and paradoxically harms the general wellbeing of the public. We are quickly moving towards a future, in which the definition of 'best evidence' is a legal ambiguity employed to insure that the real 'facts' are obscured from sight and can never be known or proven.

The definition of 'public health' is odious to reason, in which the choice of the individual is sanctioned at the bequest of the state. This elegantly brings us on to the subject of the government and its vague language involving fluoride safety protocols, and the parroting of the Orwellian expression 'best evidence', a turn of phrase that belies a contradiction in terms. An oxymoron, the expression 'best evidence' is incongruent as there is no such thing – 'evidence' by definition is either established as an 'incontrovertible fact' or the proposition is 'wrong' and thereby 'inadmissible'. The Latin etymology of the word 'evidence' demonstrates the point very clearly, 'evidens' (obvious to the eye or mind – videre to see), to quote the Oxford English Dictionary:

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Evidence:

(1) *‘the available body of facts or information indicating whether a belief or proposition is true or valid’.*

(2) *‘Law information drawn from personal testimony, a document, or a material object used to establish facts in a legal investigation or admissible as testimony in a law court’.*

Oxford Dictionary of English, 2e Revised, Oxford University Press, 2005, [Evidence]

The unscientific definition of ‘best evidence’ is employed by the NHS to get around the awkward truth that the data concerning fluoridation is either contradictory or spurious. More specifically the ‘evidence’ on the toxicity of fluoride that is featured in the ‘contrived debate’ can be ‘proven’ on close examination to be an incontrovertible ‘fact’. The English and European Court of Law is not interested in ‘hypothesis’ that draw upon ‘circumstantial’ evidence. In fact it can be noted that the ‘best evidence’ is often very ‘weak’, as is shown in the York Report that could not establish the efficacy or safety of fluoridation in the UK. ‘Real evidence’ does not depend upon ‘conjecture’ or ‘estimation’ it deals with ‘facts’ from which the ‘management of risk’ is completely negated. This is because the causality of disease is understood and the risks are fully accounted for. In short, ‘evidence’ deals with ‘facts’ and concerns that which is ‘known’. If the risk is unknown and by default cannot be ascertained then permitting potentially hazardous chemicals into the water supply is unlawful.

In the debate on fluoride, the pseudo-scientific definition ‘best evidence’ is used to paper over the cracks, the contradictions that cannot be readily determined, and simplifies or conceals the lack of consensus amongst senior experts. The ‘facts’ pertaining to the efficacy of fluoride is quite different to the ‘best evidence’, which under the Water Supply Act Regulation 2000 requires a higher burden of proof. To emphasize, the ‘facts’ are ‘incontestable’, and we have to be vigilant that the ‘truth’ is not buried in legal ‘jargon’ rhetoric that is propped up by studies that use percentile markers to exploit statistical variance within general populations. This then is not ‘science’ but the manipulation of data – and benefits neither the ‘individual’ nor the ‘public’.

Below the threshold of the fluoride discourse, the truth still remains! Why for example would the National Research Council in their initial review of their own report advocate zero amounts of fluoride? This is because the fact of the matter is that the governing board members of the American Academy of Science and Medicine consider fluoride to be a poison...

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In the market sector, however we see the exact opposite in which fluoride is increasingly being pushed as a ‘treatment’ or a ‘drug’. Let’s be very clear on what we mean by a ‘drug’. Potentially misleading, a ‘drug’ is not always a ‘medicine’, to quote the Oxford English Dictionary:

Drug:

‘A medicine or other substance which has a physiological effect when ingested or otherwise introduced into the body’.

Oxford Dictionary of English, 2e Revised, Oxford University Press, 2005, [Drug]

To be precise, the administration of pharmaceutical ‘drugs’, Greek ‘pharmakon’ (a drug), is not the same as a ‘medicine’... There is then a legal distinction and this is important! The fluoride industry (from the studies in circulation) have never stated that fluoride is a ‘medicine’, as this definition would imply that it is taken as an ‘intervention’ for a medical condition to ameliorate or cure. Fluoride neither ‘cures’ nor alleviates symptoms of ‘tooth decay’ and the pharmaceutical companies know this!

Guilefully the fluoride manufactures have stealthily adopted ‘voluntary medical codes’ – such as the ‘prescription of fluoride’ products and is a covert move to ostensibly market fluoride as a ‘medical’ product, whilst giving them the cover of legal protection. Fluoride however is not registered as a ‘medicine’, because clearly it is not a ‘medicine’, it is a ‘drug’ a substance that has a physiological effect on the body. In itself, fluoride does not cure tooth decay. Moreover the effects of a ‘drug’ on the human organism do not have to be ‘beneficial’ or ‘good’ to be registered as a ‘drug’ only to show a physiological effect. The meaning of the term ‘drug’, originally Middle Dutch ‘droge’ (literally dry vats), refers to the contents of ‘dry goods’, a definition that is pliant to the interpretation of a ‘drug’. Paradoxically the toxicological effects of fluoride are therefore not relevant for the marketing of a drug and its status.

Prolonged exposure to fluoride might in the long term lead to ‘terrible’ suffering, but the systematic use of fluoride under the law does not preclude the voluntarily use of that ‘drug’ (although we add here that the legality of the substance as a ‘safe drug’ for public consumption is at least in question under EU terms and agreements). Pharmacovigilance Directive 2010/84/EU on the Community Code relating to medicinal products, Section 5 for human use states:

‘(5) For the sake of clarity, the definition of the term ‘adverse reaction’ should be amended to ensure that it covers noxious and unintended effects resulting not only from the authorised use of a medicinal product at normal doses, but also

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from medication errors and uses outside the terms of the marketing authorisation, including the misuse and abuse of the medicinal product’.

Directive 2010/84/EU of the European Parliament and of the Council, 2010, Pharmacovigilance on the Community Code relating to Medicinal Products for Human Use [Section 5]

The application of Directive 2010/84/EU causes all kinds of problems for the Secretary of State. To digress, the main problem with Criminal Law is that, with the ‘mass drugging’ of the population under the definition ‘adverse reaction’, the description is pre-conditional on a ‘noxious and unintended effect’, an outcome that is clearly preventable under the law. Ignoring the results of fluoridation is an indictment for conspiracy (See 2c. 45 Criminal Law Act 1977).

In principle the ‘authorisation’ of the drug for community use is ‘unauthorised’ and under the law is forbidden! The European treaties on ‘pharmacovigilance’ is quite absolute the legislation does not permit the use of fluoride as a ‘mass drug’, as its side effects are provably ‘harmful’ and are well documented in scientific studies throughout the States, the United Kingdom and Australia.

A drug then can under the definition of law be either a ‘medicine’ or a substance that can have proven toxicological effects. The mitigation of a poison to relieve a medical condition or suffering is permissible individually under the stipulation or endorsement of consent. Collectively however the introduction of chemicals is a different matter and the reduction of ‘side effects’ on vulnerable groups cannot be reasonably avoided, therefore the fluoridation of water is not publically admissible within a legal context. Such a provision is a violation of the law and is a serious crime under the Offences Against the Person Act 1861. Administering a poison likely to inflict grievous bodily harm is illegal and warrants a maximum of 10 years in prison, to quote Section 23 of the Act:

Section 23: Maliciously Administering Poison, &c. so as to endanger life or inflict grievous bodily harm.

‘Whosoever shall unlawfully and maliciously administer to or cause to be administered to or taken by any other person any poison or other destructive or noxious thing, so as thereby to endanger the life of such person, or so as thereby to inflict upon such person any grievous bodily harm, shall be guilty of felony, and being convicted thereof shall be liable . . . to be kept in penal servitude for any term not exceeding ten years’ . . .

The Offences Against the Person Act 1861, Section 23

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To emphasize if Wakefield is taken to task over water fluoridation, and in this context it can be proven that the agent is a ‘toxin’, the legal connotations are very serious. The argument of fluoride’s toxicity is not that difficult to make, and has already been proven. For example, Professor Peckham’s largest population Study completed from the NHS databases from fluoridated regions showed a massive 30% increase in thyroid symptoms. If this or any other study quoted in this paper is accepted within a court of law as true, then the co-conspirators of fluoride will under the articles of law be subject to a maximum of 10 years in jail.

The burden of proof under Article 23, to emphasize, is very low. The word ‘noxious’ denotes the Latin etymology ‘noxa’ (harm). In this Article of Law, there is no specification of the ‘level of harm’, all we need to do is to prove that fluoride is ‘harmful’ – which we can, as the National Research Council has published the scientific data including the levels of fluoride that cause physical harm to the human organism. Medically attested, the published calculations coincide with the measurement of water fluoridation 1ppm, to quote the World Health Organisation:

‘People affected by fluorosis are often exposed to multiple sources of fluoride, such as in food, water, air (due to gaseous industrial waste), and excessive use of toothpaste. However, drinking water is typically the most significant source.

World Health Organisation, Fluoridation

Theoretically the fluorosis of tooth enamel under Article 23 can be considered as ‘harm’ and under the Article of Law is a serious offence. With regards to the water companies, the Secretary of State may safeguard against financial litigation, there is however no clause written in the appended law to insure against the Offences Against the Person Act. This in essence means if fluoridation is shown to be illegal (a proposition established in the Scotland Mrs Catherine McColl v Strathclyde Case of 1983), then theoretically Ruling 23 ‘maliciously administrating a poison’ would come into immediate effect. Local authorities and the water boards involved in such illegal activities could find themselves caught under Article 23 and jailed as accomplices to a crime.

The argument to show that fluoridation is illegal can be made very simply under the grounds that it violates the principles of ‘clean’ and ‘wholesome water’, and under Scottish Law the precedent has already been established. The ramifications are massive for the industry and even call into question the legality of the ‘consultation process’ itself. Advocators of the government’s line on fluoridation fall perilously close to ‘wanton conspiracy’ to cause Criminal Damage and Harm, and written qualification could theoretically be held accountable, to quote the Criminal Law Act of 1977:

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Criminal Law Act 1977

Chapter 45, Part 1

CONSPIRACY

Section 1:

(1) 'Subject to the following provisions of this Part of this. The offence Act, if a person agrees with any other person or persons that a course of conduct shall be pursued which will necessarily amount to or involve the commission of any offence or offences by one or more of the parties to the agreement if the agreement is carried out in accordance with their intentions, he is guilty of conspiracy to commit the offence or offences in question'.

Criminal Law Act 1977, Chapter 45, Part 1 (1)

Put in layman's terms, one does not have to commit any crime whatsoever, all one has to do is to agree to carry out a crime with intent, in this case conspiracy to criminal damage. This Article in spirit compliments the earlier Act referred to as 'The Offences Against the Person Act 1861' Section 23 (Maliciously Administering Poison, so as to Endanger Life or Inflict Grievous Bodily Harm). Section 2 goes on to elaborate in detail what constitutes 'Conspiracy to Commit an Offence' and which parties should be held liable:

Criminal Law Act 1977

Chapter 45, Part 1

CONSPIRACY

Section 2:

(2) 'Where liability for any offence may be incurred without knowledge on the part of the person committing it of any particular fact or circumstance necessary for the commission of the offence, a person shall nevertheless not be guilty of conspiracy to commit that offence by virtue of subsection (1) above unless he and at least one other party to the agreement intend or know that that fact or circumstance shall or will exist at the time when the conduct constituting the offence is to take place'.

Criminal Law Act 1977, Chapter 45, Part 1 (2)

In other words, an offence against a party can be incurred without full knowledge of criminal activity if the defendant has prior agreement to a crime that will take place or happen in the future. Interpretation of the law means that one can be imprisoned for showing '*recklessness*', as interpreted by the Article. Theoretically, claiming ignorance under the statute is not a defence as is issued under the Consultation Guidance of the Law, to quote:

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1/ Criminal Damage

(4.51) 'On our approach, a conspiracy to commit criminal damage ought to involve proof of an agreement, and hence an intention, to damage property (the conduct element); but it should not require proof of actual knowledge on the part of the conspirators that the property to be damaged belonged to another person (the circumstance element). The prosecution should need to show no more than that the conspirators were reckless as to that circumstance element (whether property of another would be damaged).'

Law Commission Consultation Paper on Criminal Law Act 1977

The judgement therefore rests upon the conduct element, i.e. that a knowledge of the crime is implicitly understood, the specifics of the crime are described as the (circumstantial element), which according to the offence may differ. Thus intent to steal (the conduct element) could circumstantially lead to a manslaughter charge (the circumstantial element). In this case-scenario, pleading innocent to 'manslaughter' is not an option, as one by inference of 'thoughtlessness' is culpable of 'intent' or 'conspiracy', and are actions that in themselves though inadvertent could lead to a more serious crime:

(4.52) 'This is not simply because recklessness as to the circumstance element is what is required for the substantive offence of criminal damage. It is because recklessness as to a circumstance element is the minimum degree of fault we believe should, in that regard, be required on a charge of conspiracy.'

Law Commission Consultation Paper, Criminal Law Act 1977

In other words, pleading not guilty to a charge on grounds that the defendant was not aware of the circumstances is not good enough if it is shown that the conduct element is intact, the original intention to commit a crime, technically the determination to conspire to commit criminal damage. Therefore 'recklessness' is the minimum possible charge in such a case. With particular reference to Section 90 of the Water Act 2003, the legal provision that addresses or gives recourse to indemnities however offers no legal protection against fluoridation, to quote

The Secretary of State:

(1) 'The Secretary of State may, with the consent of the Treasury, agree to indemnify any water undertaker in respect of liabilities which it may incur in complying with arrangements entered into by it pursuant to section 87 (1) above [i.e. to fluoridate].'

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(2) 'The Secretary of State may also, with the consent of the Treasury, agree to indemnify any licensed water supplier in respect of liabilities which it may incur'.

Water Act 2003, Indemnities in Respect of Fluoridation, Section 90(1) and (2)

On the surface, the provision provided by the Article of Law appears to insure water companies from prosecution and when thoroughly evaluated is clearly not true. This is because when the issue of liability is examined carefully the position of prosecution still remains and is valid. To clarify the payment of litigation costs by the Secretary of State infers a provenance of guilt which under UK law is punishable by the penal codes (the Criminal Law Act 1977 and the Offences Against the Person Act 1861) – See YPAF's first Report to Wakefield for an examination of the Water Act 2003.

On the issue of fluoride, there is now so much more evidence available about the nefarious substance and its pernicious effects on the body that ignorance in the criminal courts is neither an excuse nor an expedient plea bargain! To emphasize, the real issue of fluoride as a demonstrable poison is no longer subject to debate, but is relative to quota toxicity, standardised levels that are accepted by the Environmental Protection Agency and recognised universally as the basic industrial guidelines.

On the weight of evidence, the burden of proof for the government's position that fluoridation is 'safe' cannot be guaranteed. Unassailable, under legal scrutiny the law requires that fluoridation is not *'potentially harmful to the general public'* and all of the science to date is very clear, the evidence empirically proves otherwise! The calculated risks then are well known and the government therefore are not permitted to use fluoride in 'public health' schemes that have no basis in constitutional law! To close with the words of the Former Shadow Secretary for Health, David Blunkett:

'... I don't believe we should put fluoride in the water supply as mass medication because I don't think that gives us any choice and I think it's a very dangerous principle...'

Former Shadow Secretary for Health, David Blunkett, 6 July 1993, Library House of Commons Report, Water Fluoridation, Research Paper 93/121/ 21 December 1993, [preface]

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(Section 7): Questions and Recommendations for Public Health England

On the grounds of constitutional law, we request the non-fluoridation of Yorkshire water supply and that you follow the legal precepts outlined in this document. Failing these simple recommendations, YPAF (Yorkshire People against Fluoride) and its Wakefield and Hull members want the following answers in writing:

- (1) A statement issued from the highest executive in charge and responsible for the fluoridation scheme to state emphatically:
 - (a) The undersigned.... guarantees that water fluoridation is completely safe and does not pose any potential health risks for the population including all subgroups (children, elderly, and the sick).
 - (b) Otherwise: The undersigned.... cannot guarantee that water fluoridation is safe.

- (2) YPAF (Yorkshire People against Fluoride) will hold individuals legally responsible and not government organisations that are funded by public money. We therefore want to know the specific name and / or names of the individuals that are proposing the fluoridation of Wakefield and Hull. To reiterate, Officials that are on high incomes and advocate controversial 'public policies' should be held politically accountable in a Court of Law.

- (3) Additionally members of YPAF want to know the classification from Public Health England what 'fluoride' is and its legal status – e.g. a medicine, drug, substance, agent... We will require exact definitions on this point, so all parties know the legal arguments.

- (4) Public Health England should be spending money at looking at alternative anti-bacterial agents that can be used safely in toothpaste to replace fluoride. This is a matter of public urgency.

- (5) Public Health England are also required to draft a contingency in writing, to examine the environmental cost of fluoridation.

- (6) These ecological provisions [refer to (5)] would require the Environmental Agency to draw up plans, in the event of a spillage that leads to fluoride poisoning or death. Both members of the Council and Public Health England need to discuss these measures as a matter of top priority: Public Health England are obliged to draft out recommendations of how Yorkshire County Councils can avoid such potential disasters with particular reference to:

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- (a) The Hooper Bay Incident in which a faulty pump administering fluoride killed and injured individuals in Alaska.
 - (b) The North Pine Water Plant Incident, Queensland, 2009. Another major environmental catastrophe equated with fluoridated water.
 - (c) What is Public Health England going to do to ensure that sections of the population are not receiving higher doses of fluoride than the prescribed 1ppm? For example, how many regions in Yorkshire do Public Health England propose to test? Additionally if levels of fluoride are higher than 1ppm in these regions, how will your agency act – and what is the protocol?
 - (d) Do Public Health England have a drafted Health and Safety ‘Act’ for the Yorkshire fluoridation schemes in writing – Please refer YPAF to the appropriate documentation.
- (7) Public Health England should be carefully weighing up the costs and freeing up funds for advertising dental health through the public media, including adverts aimed at children from socially deprived backgrounds. These initiatives should be compared against the cost of fluoridation.
- (8) Will the Secretary of State credit non-paid water bills under claims made by the general public. Theoretically this compensation is valid under the Water Act 2003, Section 90 (litigation), and to date has happened once in which the water board recovered an unpaid water bill from the government.
- (9) Additionally will Wakefield Council cover the costs for water filters for people who opt out of the water scheme / and or subgroup populations that can be adversely injured by the introduction of fluoride, for example people who have had adverse effects to fluorine in medicines, e.g. antibiotics.
- (10) YPAF recommends that fluoridation schemes should stop immediately in terms of ethical, legal and medical reasons. A statement issued by Public Health England and its support of fluoridation is in total contradiction to the listed toxicological levels of fluoride. The inappropriate policy should be clearly explained to the general public in writing, in particular why focusing on the health of teeth is of more importance than reducing the incidences of brain disorders, e.g. the growth in thyroid problems.
- (11) In this summary [see (10)], you should quote ‘evidence’, with accompanying ‘facts’ and not ‘opinions’.

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- (12) YPAF want to know why the NHS feels the need that: *‘England [should] provide a unique “test-bed” to study the effects of fluoride’... quote NHS Choice... and without sounding too facetious, you could also explain to the general public why ‘NHS Choice’ is against ‘individual choice’.*
- (13) Public Health England is an ‘objective’ not a regulatory or law making institution. How is Public Health England going to enforce local fluoridation?
- (14) In light of Professor Peckham’s recent findings in the UK that details a 30% increase in thyroid problems in fluoridated regions, how is Public Health England going to legally justify the legitimate safety concerns of fluoridation? The judicial basis of fluoridation requires a minimum provision that *‘water is free from... any substances which, in numbers or concentrations, constitute a potential danger to human health’.*
[EU Drinking Water Directive (98/83/EC)]
- (15) In relation to fluoridation of water in Yorkshire, there is a theoretical legal obligation to protect subgroups from the insidious effects of fluoride in ‘sub-optimum’ populations, for example children with renal failure and cancer, how would Public Health England identify and manage these risks?
- (16) In addition People who have had adverse reactions to antibiotics containing fluorine should also be informed if water is fluoridated, so as to mitigate bad reactions or side effects. How would Public Health England identify these subgroups
- (17) Why did the Medical Report from Public Health England (Water Fluoridation, Health Monitoring Report 2014) omit or fail to mention thyroid problems in their written Review (The word thyroid does not appear in this Study). This gross ‘oversight’ is a dereliction of duty of care to the general public and is a monumental ‘error’. An inexplicable omission, the ‘oversight’ is particularly concerning, as the recent data on thyroid problems published by Professor Peckham must have been available to the Review Panel. Thyroid disease equated with fluoride exposure is a significant risk that should have appeared in your document Water Fluoridation, Health Monitoring Report 2014.

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- (18) Will a special section on thyroid problems appear in Public Health England's updated report on fluoridation, if not why not?
- (19) How is Public Health England going to warn people of the increased risks of fluoride problems in fluoridated regions, for example will they advertise on television campaigns to reduce fluoride consumption in population groups known to be at risk, e.g. thyroid, pancreatic and kidney disorders? How will these risks be communicated to the individual?
- (20) Has there been a study commissioned to review the dental benefits for fluoridation versus the risks of thyroid problems and other related symptoms, if not why not?
- (21) Smoking legally requires the labelling of cigarettes with the risks associated with pulmonary lung disease – will the same legislation be required of fluoridated water to warn against thyroid, kidney and neurological diseases, etc? Please note this is a serious question as thyroid sickness is no longer a theoretical risk, but is proven to be an actual documented side effect associated with the fluoridation of water.
- (22) What is Public Health England going to do to actively prevent thyroid and other related health problems in fluoridated regions? In particular, the thyroid complications that have been scientifically highlighted in the Study completed by Professor Stephen Peckham and in the research of The National Research Council is attributed to fluoride levels in water of just 0.7mg per litre of water.
- (23) In the US, the maximum concentration of fluoride was lowered in April 2015 to 0.7mg of fluoride per litre in drinking water. These changes were implemented due to scientific and medical concerns about safety. The reduction of fluoride levels in America suggests that Public Health England's policy of having higher fluoride concentrations of 1mg per litre is an unacceptable risk and in light of the recent evidence is illegal.
- (24) Vitaly important, Public Health England needs to open up a telephone line, so people in fluoridated regions can report adverse side effects to their own healthcare providers. Such a helpline is a requisite in order to assist with the collection of data to assist the local authority. This information should be monitored and published for review and is a legal imperative.

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(Section 8): Appendices and Tables

Appendix 1(a) Tables

Studies that Show 'No Difference' Between the Dental Health of Fluoridated & Non-Fluoridated Regions of the World

(Please Note the * Sign is Where the Studies Highlighted Injury)

United States, Canada and South America

<u>Country</u>	<u>Periodical Review</u>
United States	A Longitudinal Study. Journal of Public Health Dentistry 69:111-15
Iowa*	Journal of Public Health Dentistry 66(2):83-7
West Virginia	Rural Health Research Centre, 2011
Missouri	American Journal of Physical Anthropology 78:79-92
Canada*	Journal of the Canadian Dental Association 10:763-765
Mexico	Cross-Sectional Analysis of Children with Dentition 2006
Brazil	Cadernos de Saude Publica 18:1281-8

Australia and New Zealand

<u>Country</u>	<u>Periodical Review</u>
Australia	Community Dentistry & Oral Epidemiology 32:283-296
New Zealand	Australian and New Zealand Journal of Public Health. 21: 187-190
New Zealand*	Community Health Studies 6: 85-90
New Zealand	Community Dentistry and Oral Epidemiology 13:37-41

Europe

<u>Country / Region</u>	<u>Periodical Review</u>
Germany	Gesundheitswesen 73(8-9):483-90
Ireland*	Community Dental Health 20(3):165-70
Finland	Caries Research 36: 308-314
Flanders	Biostatistics 6:145-55

Middle East

<u>Country</u>	<u>Periodical Review</u>
Iran*	Community Dentistry and Oral Epidemiology 34:63-70

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Appendix 1(b) Table

DMFT (Decayed, Missing & Filled Teeth) Status for 12 Year Olds by Country –World Health Organisation Data (2012) –

<u>Country</u>	<u>DMFTs</u>	<u>Year</u>	<u>Status*</u>
<i>Denmark</i>	0.7	2008	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Germany</i>	0.7	2005	<u>No</u> water fluoridation. 67% salt fluoridation.
<i>England</i>	0.7	2009	11% water fluoridation. <u>No</u> salt fluoridation.
<i>Netherlands*</i>	0.8	2002	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Switzerland**</i>	0.82	2009	<u>No</u> water fluoridation. 88% salt fluoridation.
<i>Belgium</i>	0.9	2009-10	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Sweden</i>	0.9	2008	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Australia</i>	1.0	2003-2004	80% water fluoridation. <u>No</u> salt fluoridation.
<i>Austria</i>	1.0	2002	<u>No</u> water fluoridation. 6% salt fluoridation.
<i>Ireland</i>	1.1	2002	100% water fluoridation in study. <u>No</u> salt fluoridation.
<i>Italy</i>	1.1	2004	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>United States</i>	1.19	1999-2004	64% water fluoridation. <u>No</u> salt fluoridation.
<i>Finland</i>	1.2	2006	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>France</i>	1.2	2006	<u>No</u> water fluoridation. 65% salt fluoridation.
<i>Spain</i>	1.3	2004	11% water fluoridation. 10% salt fluoridation.
<i>Greece</i>	1.35	2005-06	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Iceland</i>	1.4	2005	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>New Zealand</i>	1.4	2009	61% water fluoridation. <u>No</u> salt fluoridation.
<i>Japan</i>	1.7	2005	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.
<i>Norway</i>	1.7	2004	<u>No</u> water fluoridation. <u>No</u> salt fluoridation.

Key: * The Hague and ** Zurich

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Appendix 1(b) Table Results Compiled by the Following Organisations:

Tooth Decay Data from: World Health Organisation Collaborating Centre for Education, Training, and Research in Oral Health, Malmö University, Sweden. <http://www.mah.se/CAPP/>
Salt Fluoridation Data from: Gotzfried F. (2006). Legal Aspects of Fluoride in Salt, Particularly within the EU. Schweiz Monatsschr Zahnmed 116:371-75.

Additional Notes on Appendix 1(b) Table:

These figures from the World Health Organisation show the incidence of tooth decay in fluoridated and non-fluoridated regions of Europe and the rest of the world. Although the difference seen between the 2 sets of figures are minimal, the averages for the amounts of caries suggest that fluoridation moderately increases the risk of tooth decay.

Precise, the measurement DMFT (Decayed, Missing & Filled Teeth) are derived from the World Health Organisation's own statistical analysis on tooth decay (Conducted from the Centre of Education, Training, and Research in Oral Health, Malmö University, Sweden). Counter to all reason, the World Health Organisation argues that the European Union should fluoridate all member states and is unfortunately a position that is not backed up by their own scientific evidence! Close appraisal of the statistical figures indicate that fluoride injures teeth and by definition is illegal!

(Please Continue to Next Page)

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Appendix 1(c) Tables

New Zealand

Comparative Rates of Caries in Fluoridated and Non-Fluoridated Regions

Small Statistical Differences Reveal that the Non-Fluoridated Areas

Have Slightly Less Decay.

5 Year Olds NON-FLUORIDATED			
Centre	No. of Children	Carries Free %	Mean DMFT
Christchurch	(3849)	55%	1.8
5 Years Olds FLUORIDATED			
Centre	No. of Children	Carries Free %	Mean DMFT
Auckland	(9611)	53%	1.8
Hamilton	(2266)	47%	2.3
Palmerston Nth	(950)	55%	1.8
Wellington	(3344)	58%	1.6
Dunedin	(994)	56%	1.5

12 – 13 Year Olds NON-FLUORIDATED			
Centre	No. of Children	Carries Free %	Mean DMFT
Christchurch	(5822)	37%	1.9
12 – 13 Year Olds FLUORIDATED			
Centre	No. of Children	Carries Free %	Mean DMFT
Auckland	(11464)	33%	2.0
Hamilton	(2689)	30%	2.3
Palmerston Nth	(1025)	31%	2.3
Wellington	(4237)	36%	1.8
Dunedin	(1168)	29%	2.2

Analysis:

In the above tables, the results between caries in the younger age group (5 year olds) and caries free rates are virtually identical. The figures suggest a slight benefit in non-fluoridated regions. As we move into the older age groups (12 to 13 year olds), the differential between the fluoridated and non-fluoridated category becomes statistically much more significant. The interpretation inferred from the expanded figures is that the systematic use of fluoridated water over longer periods of time is demonstrated to compromise the overall durability of the tooth and is related to the development of caries.

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Appendix 1(d) Tables

Comparative Data for Fluoridated and Non-Fluoridated Regions

Covering 57 Jurisdictions in the United States

Fluoridation Status	No. of Areas	No. of Students	DMFT
Fluoridated	27	12,747	1.96 (0.415)
Non-fluoridated	30	13,882	1.99 (0.408)

Average-age-adjusted DMFT [Decayed, Missing, Filled Teeth] rates for 26,629 U.S. schoolchildren in 57 areas throughout the United States. Standard deviations are given in parentheses.

Analysis:

In a comparison of approximately 27,000 school children in the United States, the difference between decay in fluoridated and non-fluoridated regions is 0.03. In this comprehensive study, the results are virtually identical to Dr. Shiboski's calculations, featured within the 'Journal of Public Health Dentistry'. Published, the differences in Dr. Shiboski's work between preschool children's caries in fluoridated and non-fluoridated regions of California is documented as 0.1 level of significance. Of little consequence, these comparisons are so small that the results cannot be measured scientifically.

In addition, we can note that these are 'average' age 'adjusted' DMFT [Decayed, Missing, Filled Teeth] figures. Critically the 'results' are obtained by adding several amounts together and then dividing these disparate totals by the number of amounts. The problem with this methodology is that the sums can be easily manipulated to score a 'false positive' – particularly when the figures are 'adjusted'.

With these crucial considerations in mind, the totals within this limited sample obtained from the United States, although not statistically significant, show virtually no benefits for fluoridation, whereas in comparison, to Australia, Canada, New Zealand and the Middle East, the numbers cited demonstrate the opposite trend and prove fluoridation to be harmful. In the majority of European States, the negative results also relating to fluoride consumption are emphatic of an adverse effect. Unambiguous, the data indicates that there is no benefit attributed with the fluoridation of water, a process that is equated with elevated risk! – please refer to Tables 1(a), 1(b) and 1(c).

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Appendix 2(a): Fluoride Advertisements (The Disinformation Campaign)

Introduction

The fluoride industry within advertising has been peddling a number of circumspect 'truths' for the best part of 70 years, headed under the marketing campaign of 'public health'. Before however looking at the mantras used commonly within fluoride promotion, it is worth first discussing the 'missing link', the reason for the reduction in dental decay throughout the world. This is one big secret and has nothing to do with fluoride. The 'classified ingredient' however that is found within your own toothpaste and has contributed to the increase in oral wellbeing is Sodium Lauryl Sulphate.

On a side note, the use of Sodium Lauryl Sulphate within household cleaning products is acknowledged as a controversial ingredient. Utilised as a known pesticide, the substance is accumulated in the internal organs and is a toxin thought to mimic human hormones. Growing evidence indicates that the ingredient is a possible carcinogen and in humans is linked to cataract formation. Despite safety concerns the additive has certain properties exploited within dental medicine.

Until 1945, toothpaste only contained 'soap' or sodium bicarbonate. Following the mid 1940s, the ingredient soap was gradually replaced by the emulsion 'Sodium Lauryl Sulphate' a non-abrasive dispersion shown to be very efficient at removing detritus and maintaining oral hygiene. The introduction of 'Sodium Lauryl Sulphate' in the history of dentistry is arguably one of the biggest breakthroughs in tooth hygiene – an important innovation masked (dishonestly) by the fluoride studies funded by corporate money.

In general then the real 'advance' in oral science is not the collaboration of fluoride with odontology as claimed by the medical board but the most comprehensive development is the use of emulsifiers within the composition of toothpaste, and has been kept quiet for the best part of 70 years! The reduction seen in tooth decay is therefore attributable to the use of better emulsifiers and is a 'benefit' (if we exclude the actual risks) that is transferred to populations that use non-fluoride toothpaste, a subgroup that have stronger and healthier teeth! (Please refer to Appendix 3 – Non-Fluoridated Teeth). Perhaps the biggest question within dentistry is: are there safer agents alternatively on the market to Sodium Lauryl Sulphate that can be used without harm as an emulsifier to clean the teeth? Once again these are really big questions that the next generation of toothpastes will be legally compelled to answer....

Yorkshire Citizens Caring for Yorkshire People

Appendix 2(b): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Crest Pro-Health Advance

Fluoride does not strengthen enamel, the *hypermineralization weakens the surface of the tooth* (Aoba and Fejerskov, 2002, p159). In addition, the claim that the product is PRO-HEALTH and provides stronger teeth for a healthier mouth is a prevarication of the truth. How the manufacturers worked out the percentile range of 99% 'stronger teeth' is anyone's guess? Does the assertion also mean that the 1% in the study get weaker teeth?



Crest Pro-Health

Pro-Health toothpaste 'clinically proven', the York Report 2000 could not find any evidence that fluoride prevents cavities, and yet the repetition of the same arguments...



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Appendix 2(c): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Fluorodine Anticavity Toothpaste

It has never been proven satisfactory that fluoride is an ‘anticavity’ substance, and yet there are literally hundreds of peer reviewed articles that demonstrate fluoride ‘contamination’ leads to *‘fluorosis and the eventual break-up of the tooth surface culminating in cavity formation’* (Gruebbel, 1952, p153). In this advert for Fluorodine, the instructions states that sodium fluoride is a drug and its purpose is anticavity (refer to boxed section: Drug Facts). The makers also state that the toothpaste is for children older than 2, and children under 6 should not ingest the toothpaste. In the small print on the label, it actually states the toxicity of the ingredients, and alludes to fluoride as a ‘poison’ to quote:

Do not swallow. If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Centre right away.

Fluorodine **Oxygen White™**
Fluoride Anticavity Toothpaste
 Net Wt. 4.66 oz (132 g) **Long Lasting Protection**
 + Cleans Polishes Microcleaning Crystals

Net Wt. 4.66 oz (132 g)
 Fluorodine® Multibrands International & Fluorodine are registered trade marks. Designed, Developed and Formulated in Great Britain. V004 22423

REMOVE FOIL SEAL BEFORE USING

Drug Facts		Drug Facts (continued)	
Active Ingredient Sodium Fluoride 0.24%.....	PurposeAnticavity	Directions Adults and children 2 years of age and older:	Brush teeth thoroughly, preferably after each meal or at least twice a day, or as directed by a dentist or doctor.
Use	Aids in the prevention of dental cavities.	Children under 6 years of age:	Instruct children under 6 years of age in good brushing and rinsing habits (to minimize swallowing). Supervise children as necessary until capable of using without supervision.
Warnings Keep out of reach of children under 6 years of age.	Do not swallow. If more than used for brushing is accidentally swallowed, get medical help or contact a Poison Control Center right away.	Children under 2 years of age:	Consult a dentist or doctor.
		Inactive ingredients Sorbitol, Water, Silicon Dioxide, Glycerin, Sodium Lauryl Sulphate, Flavour, Cellulose Gum, Carrageenan, Titanium Dioxide, Tetrasodium Pyrophosphate, Sodium Saccharin, Sodium Benzoate, Calcium Glycero-phosphate, Hydrated Silica - Blue 1	

MULTIBRANDS™
 Manufactured for:
 Multibrands International Limited
 Unit 2 Jowett Street
 Bradford, West Yorkshire BD1 2JX
 United Kingdom
 www.fluorodine.eu.com

Made in China
 To report a serious adverse event,
 Contact 1-315-636 4687

For best quality, use within 12 months after opening. **12M**

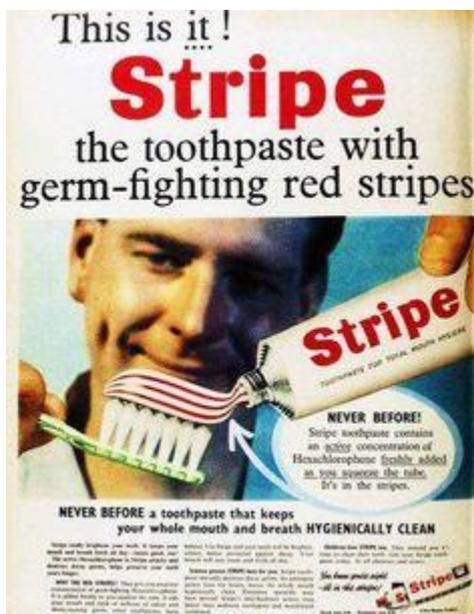
Yorkshire Citizens Caring for Yorkshire People

Appendix 2(d): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Stripe Toothpaste

Early adverts from the 1970s and 1980s actually emphasized the germ fighting properties of fluoride, which is one of the few 'truths' that is stated about fluoride. The current position that fluoride is a type of anti-bacterial agent is no longer generally emphasized in non-prescription toothpastes. Perhaps the fact that Salmonella cultures are now used to test 'mutagenic' and 'oncogenic' (cancer inducing agents) is the main reason for the general reversal of policy on products that are 'off the shelf'. The ability to read DNA damage is getting more sensitive... With regards to neurological evidence linked to structural damage of cell cultures, refer to the studies by Dr. P Mullenix, et al., 'Neurotoxicity of Sodium Fluoride in Rats, Neurotoxicology and Teratology, 17: 169-177, 1995'.



Curasept Tooth Paste

Curasept, a cognate of 'cure septicaemia', Greek 'septikos', a derivative of 'sepein' (to make rotten). Nowhere does this product states that this is a 'medicine', though the language is highly suggestive.



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Appendix 2(e): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Colgate with Gardol

The reference to toothpaste as a 'dental cream' is a means of providing psychic transference that the product is by implication a 'medicine' or a 'remedy', an *'advanced fluoride formula'* a position reinforced in the advertising: *'Brush regularly with Colgate with MFP Fluoride as part of your dental health program'*.



Pepsodent

Yet more claims that 'pro-fluoride' toothpaste [note the language 'pro' (an advantage of argument in favour of something)] is a 'cavity fighter'.



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Appendix 2(f): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Colgate Enamel Health

Another dubious claim, this time promising ‘stronger enamel’, in the words of Colgate *‘helps replenish natural calcium to strengthen enamel and enamel health’*. In medical literature, this process is known as ‘fluorosis’, ‘hypermineralization’ or ‘porosity’ and in tooth formation *is ‘manifest[ed] as heavily stained, pitted, and friable enamel that can result in loss of dental function’ (Burt and Eklund 1999)*. It is also most curious that the manufacturers do not usually emphasize the anti-bacterial properties of fluoride, and instead focus on the unproven claims that the structural reconfiguration of the enamel surface, somehow helps to manage or strengthen the tooth. The emphasis placed upon fortifying the enamel is medically un-established – and sends the alarm bells ringing!



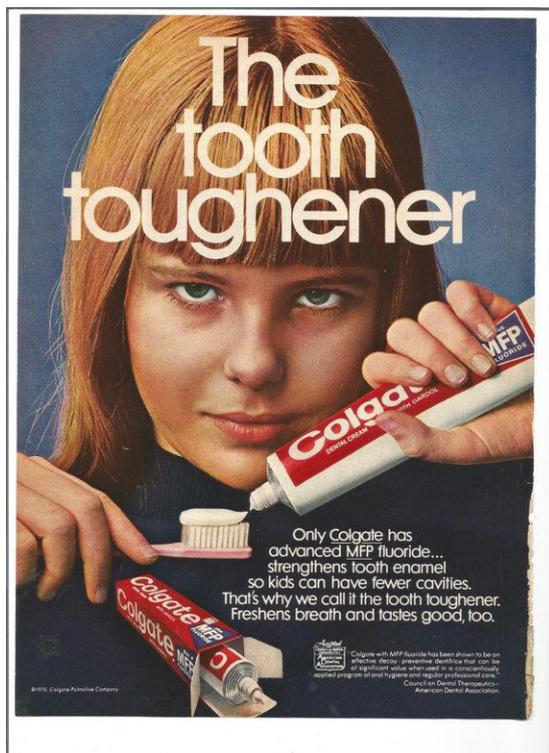
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Appendix 2(g): (Continued)

Fluoride Advertisements (The Disinformation Campaign)

Colgate MPF

The 'marketing men' once again make unproven claims Colgate is '*the tooth toughener*' and '*strengthens tooth enamel so kids can have fewer cavities*'. Note also the predictive programming '*so kids can have fewer cavities*', in other words the manufacturers are lowering our expectations, e.g. the formation of cavities in the advert is 'normalised' within the young population. The pea size portion that is emphasized for children is also disregarded in the advert and we are told that the toothpaste tastes good too! So it must be ok to eat?



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Appendix 3: Non-Fluoridated Teeth

In the photograph, the little girl pictured is in a small minority she is three and a half years old and has no tooth decay, she has never used a fluoride toothpaste in her life. Like her dad, she has a non-fluoridated toothpaste and cleans her teeth 2-3 times a day. Her father has avoided fluoride toothpaste for 20 years (from the age of 22), after being made aware of the issue of fluoride whilst staying in Japan. 42 years old, he has 1 filling and his teeth are in excellent condition. The girl's father's last dental appointment was approximately a month ago. In contrast his own identical twin brother has used fluoride toothpaste all his life and has 4 fillings.

Please refer to the photographs of the infant's teeth that show absolutely no decay and is a rare example of the benefits of using non-fluoridated toothpaste within the childhood population. Why opt for the unsatisfactory position in the words of the Colgate advert (See Appendix 2), *'so kids can have fewer cavities'*, when there is absolutely no reason why any child with a balanced diet and correct brushing with a non-fluoride toothpaste should develop any caries whatsoever! If you are still in doubt please refer to the photos below:



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Appendix 3: Non-Fluoridated Teeth (Continued)

It is possible to use non-fluoridated toothpaste and have healthy teeth, despite the warnings on toothpaste packets that tell you if you do not have fluoride toothpaste your teeth will fall out!



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Appendix 3: Non-Fluoridated Teeth (Continued)

Following simple measures such as cleaning your teeth regularly, whilst avoiding fluoridated products, your adult teeth should last into advance old age, in addition you are more likely to make old age, as fluoride is linked to increased mortality (Dr. A Smith, 'Significant Positive Effect on Cancer Rates, Study Analysis, An Examination of the Relationship Between Fluoridation of Water and Cancer Mortality in 20 Large US Cities', *NZ Med J* 1980;91:413-16).



Please note that an excellent non-fluoride toothpaste that won't harm your enamel through the fluorosis or mottling of the teeth is Aloe Dent. This product is used by the author himself see below:



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Appendix 4(a): The Early Days

Early emphasis on dental hygiene focussed on prophylactic toothbrushes, Greek 'phulassein' (to guard), thus to prevent disease. The irregular head of the toothbrush was designed primarily to get in the middle of the small gaps, between the teeth and irregular edges of the tooth surface. This is because in the early days, dental decay started as small dental spots (that were difficult to clean with a flat head of a toothbrush), hence irregular shaped prophylactic toothbrushes. In contrast with fluoride toothpaste, the enamel over continued brushing is compromised in strength and so when decay erupts, it appears systematically over the surface of the tooth.



Next to a
good dentist,
the best
friend to your
teeth is a

Pro-phy-lac-tic

TOOTH BRUSH

You cannot clean teeth by brushing *over* them. Nor can you properly reach the *back* teeth with an ordinary straight brush. The Pro-phy-lac-tic is the only brush that thoroughly cleanses in and around *all* the teeth — its curved handle and irregular tufts are designed for this purpose. The individual yellow box protects against handling. Rigid or flexible handle. Prices—25c, 35c, 40c.

Every brush fully guaranteed. We replace if defective. Our interesting booklet is yours for the asking.

FLORENCE MFG. CO.
167 Pine Street. Florence, Mass.
Sole makers of Pro-phy-lac-tic Tooth, Hair, Military
and Hand Brushes.

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Appendix 4(b): The Early Days (Continued)

The prevention of tooth decay is dependent on regular brushing, in earlier posters, *'after meals and before bedtime'*. More recent dental adverts however suggest that one should brush 'twice a day'. This is because with fluoride toothpaste, too much brushing can actually harm the teeth! To quote the UK Medical Council *'fluoride has a relatively low therapeutic ratio between biologically effective dose and toxic dose'*. In other words, if your teeth fall out, you are using your toothpaste incorrectly. From the perspective of toothpaste manufacturers, the switch in advice from cleaning one's teeth 4 times a day to twice a day does not make economic sense, it is a reversal of good marketing principles (and dental hygiene), unless of course the manufacturers are becoming ever more cautious of lawsuits from claimants, seeking compensation for buying products that claim falsely to increase dental hygiene and health.

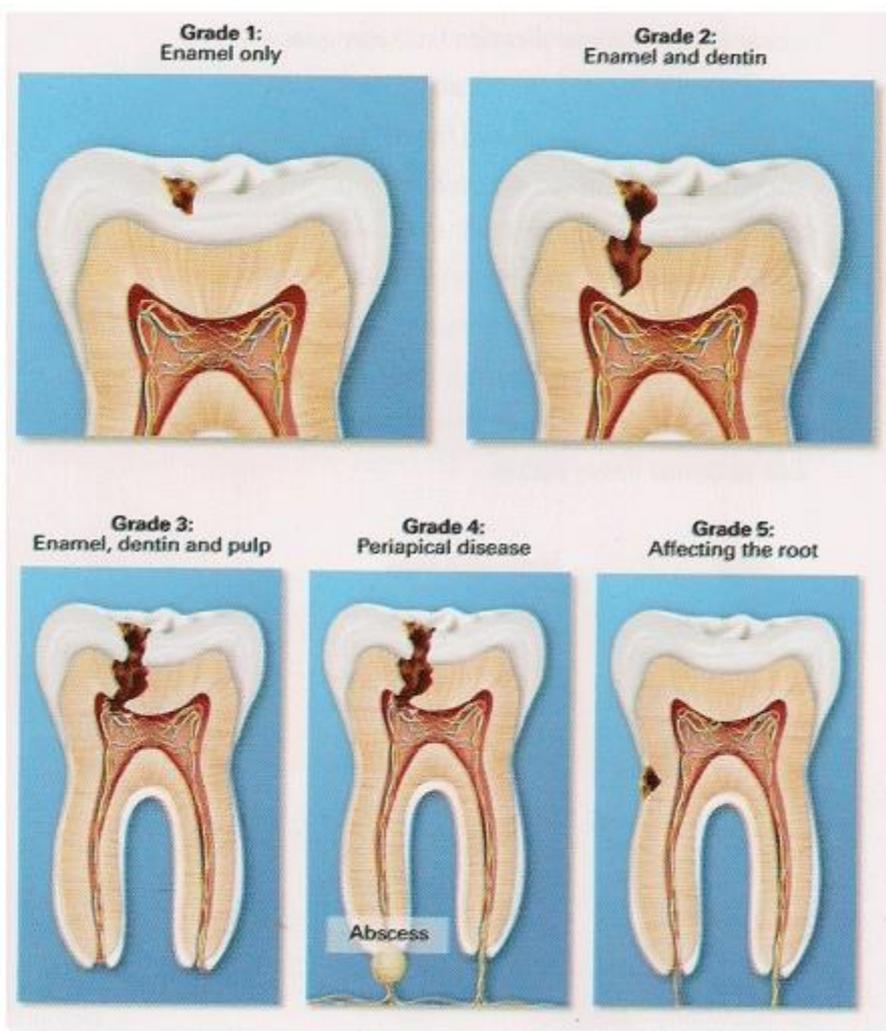


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Appendix 4(c): The Early Days (Continued)

Early dental posters tend to emphasize that tooth decay is a progressive disease that occurs over clearly defined stages. In these images, decay is typically represented as a small lesion, as opposed to large carries that are found on more recent modern healthcare posters. This is because the rate of decay and its progression is very different in fluoridated communities, in which the total surface area of the tooth's enamel is compromised by the corrosive substance of fluoride. For more recent images of tooth decay equated with the destructive agent fluoride, see contrasting diagrams on the next page.

Small Tooth Lesions that are More Commonly Seen in Populations that Do Not Use Fluoride Products



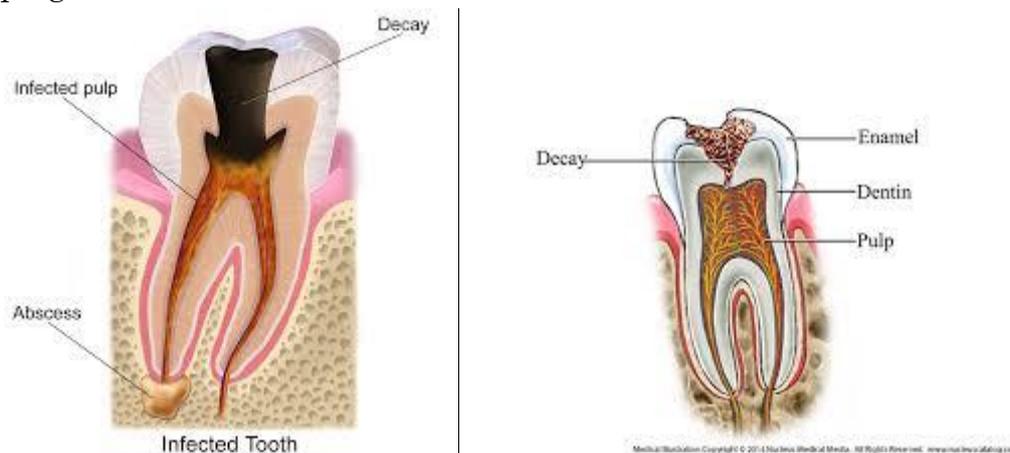
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Appendix 4(d): The Early Days (Continued)

Modern Depictions of Tooth Decay

Modern examples of tooth decay show systematic eruption of decay over the surface of the tooth as a result of enamel erosion and is a process that occurs using a modern fluoride toothpaste. In many such images, tooth decay does not appear in stages (see above), but suddenly appears as a gaping cavity.

Contemporary dental literature also focuses on not brushing the enamel as strongly, as it is more prone to damage and or breaking. The diagrams show a gradual change or shift in perception about tooth decay and how the disease progresses.



Have the Descriptions of Tooth Infection Changed within Dental Literature?

Within dental healthcare, it is often said that the cavity forming process begins with the first stage, in which the affected area of the tooth becomes whiter in general appearance, before it advances and changes colour into a dark stain, finally succumbing to decay. This simplification is on the broader spectrum not true and is a good example of where medical science has rewritten the manual on the eruption of decay. In examples of earlier dental literature, the whitened area of the enamel is often described as 'calcification' and is not linked to the 'breakdown of the tooth', instead it is thought to relate to 'diet'.

Over the years however there has been a gradual change in perception. This is because that 99% of the population fluoridate their teeth with toothpaste. Under these unique circumstances, the topical application of fluoride contributes to the development of 'white lesions', the scarification of the tooth surface that are no longer due to the small mineral deposits of calcium. The appearance therefore of white spots is an avoidable process that is primarily brought about through fluorosis and is a preventable disease of the enamel. The manifestation of fluorosis ultimately leads to the pitting of the tooth and finally tooth decay, associated with the formation of caries.

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(Section 9): Resources and Bibliography

Alphabetical Order

No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
1	Animals (Scientific Procedures) Act 1986 CHAPTER 14	1986, Chapter 14, Printed in England by W. J. SHARP, CB, Controller and Chief Executive of Her Majesty's Stationery Office and Queen's Printer of Acts of Parliament. The vivisection laws under the UK government.
2	Applicants Guideline on the Packaging Information of Medicinal Products for Human Use Authorised by the Union.	July 2013, European Commission Health and Consumer Directorate-General, Health System and Products Medicinal Products Final – Revision 14 This guideline is part of the Notice to Applicants Volume 2C – Medicinal Products for Human Use – Regulatory Guidelines of the Rules Governing Medicinal Products in the European Union, Revision 14 Update from July 2013 (Directive 2001/83/EC as amended for the last time by Directive 2012/26/EU and Regulation (EC) No 726/2004 as amended for the last time by Regulation (EU) No 1027/2012). 1 OJ L 299 of 27.10.2012, p.1. 2 OJ L 316 of 14.11.2012, p.38
3	Bad Pharma How Drug Companies Mislead Doctors and Harm Patients	Dr Ben Goldacre, Forth Estate, 2012 Another book written by a credible Dr. A critical study of the flawed medical trials, followed by the suppression of unfavourable results, poor regulation, diseases invented for profit, and Dr and academics in the pay of pill manufacturers. An important work for understanding how medical regulations work. This book then is a requirement for apprehending the public policy of fluoride and the legal and medical jargon associated with it.
4	Brisbane NZ Report Environment (Copy)	Lord Mayor's Taskforce on Fluoridation was established in January 1997 in response to the debate in the media and the political arena about whether Brisbane's water supply should be fluoridated. A decent document that looks into the complicated issue of fluoridation. Like the York Report it found very little scientific information on fluoride as a prevention for tooth decay. The document also highlights the serious diseases that are equated with fluoridation.
5	British Physicians Confirm Safety and Effectiveness and Urge Fluoridation	Department of Health Education, and Welfare Public Health Service, Centre for Disease Control, Atlanta, Georgia, 30333 Refer: FL-85, April 1976

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
6	Cancer Act 1939 Chapter 13, Section 4 Prohibition of Certain Advertisements, p6	1939, Non Drs are forbidden to promote cures for cancer and is a good example of the centralisation of knowledge within medicine
7	Code of Practice for the Pharmaceutical Industry	© Copyright 2014 The Association of the British Pharmaceutical Industry Prescription Medicines Code of Practice Authority: Constitution and Procedure, 2014
8	Code of Practice for the Pharmaceutical Industry	2015, Prescription Medicines Code of Practice Authority (PMCPA) Together with the Prescription Medicines Code of practice Authority Constitution and Procedure
9	Committee for Medicinal Products for Human Use (CHMP) Guideline on Compassionate use of Medicinal Products Pursuant to Article 83 of Regulation (EC) No 726/2004	London, 19 July 2007 Doc. Ref: EMEA/27170/2006 European Medicines Agency Evaluation of Medicines for Human Use 7 Westferry Circus, Canary Wharf, London, E14 4HB, UK E-mail: mail@emea.europa.eu http://www.emea.europa.eu Legal document on the implementation of medical products. The emphasis of this document is research into human medicine and ethical practices.
10	Criminal Law Act 1977 Chapter 45 Arrangement of Sections	Facsimile of Crown Prosecution Document 1977. Printed in England by Bernard M. Thimont, Controller of Her Majesty's Stationery Office and Queen's Printer of Acts of Parliament (389994)
11	Directive 2001/83 EC of the European Parliament and the Council of 6 November 2001 On the Community Code Relating to Medicinal Products for Human Use	Official Journal L – 311, 28/11/2004, p. 67 – 128 As amended by Directive 2002/98/EC of the European Parliament and of the Council of 27 January 2003 setting standards of quality and safety for the collection, testing, processing, storage and distribution of human blood and blood components and amending Directive 2001/83/EC / Directive 2004/24/EC of the European Parliament and the Council of 31 March 2004 Amending, as regards traditional herbal medicinal products, Directive 2001/83/EC on the Community code relating to medicinal products for human use Directive 2004/27/EC of Amending Directive 2001/83/EC on the Community code relating to medicinal products for human use

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
12	Directives 2010/84/EU of the European Parliament and the Council of 15 December 2010, Amendment Pharmacovigilance, Directive 2001/83/EC	Official Journal of the European Union 31.12.2010 on the Community code relating to medicinal products for human use. Marketing and risk assessment relative to medicines and their use within the general population.
13	Directive 2011/62/EU of the European Parliament and of the Council of 8 June 2011 Amending Directive 2001/83/EC on the Community Code Relating to Medicinal Products for Human Use, as Regards the Prevention of the Entry into the Legal Supply Chain of Falsified Medicinal Products	Official Journal of the European Union 1.7.2011 The legal definition of a 'false medicine' see also 'Fluoride'
14	Edinburgh, Comments on the case Mrs Catherine McColl v Strathclyde Regional Council, Held in the Court of Session.	Judgement given on 29 June 1983 Many of these documents on line appear to be missing – and there are a number of pertinent reports that have been deleted recently on the issue of fluoride
15	The Extent of Water Fluoridation: One in a Million the Facts about Water Fluoridation	The British Fluoridation Society A very sinister organisation that wish to fluoridate the entire planet's water supply. This document services, the hidden global elite.
16	Fluoridation	House of Commons Library Standard Note: SN/SC/5689 Last updated:2 September 2013 Author: Oliver Bennett Section: Science and Environment. Paper on the generalities of the fluoride controversy.
17	Fluoride in Drinking Water: A Scientific Review of Environmental Protection Agency's Standards	The National Academies Press, Washington D.C., www.nap.edu Copyright 2006 by the National Academy of Sciences (Otherwise referred to in this document as the National Research Council Report), Committee on Fluoride in Drinking Water Board on Environmental Studies and Toxicology Division on Earth and Life Studies. The largest systematic report completed on fluoride. The study goes into in-depth analysis of the toxicity of fluoride and its contamination levels. An important work. This document proves that fluoride under current legislation is illegal
18	The Fluoride Wars, How a Modest Public Health Measure became America's Longest Running Political Melodrama,	Allan Freeze , Jay H. Lehr, John Wiley & Son Inc. Publication, 2009, Chronicles the underhand tactics of the fluoride industry including the propaganda of bad science and the major players!

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
19	www.GOVUK Medicines: Packaging, Labelling and Patient Information Leaflets	From Medicines and Healthcare products Regulatory Agency First published: 18 December 2014 Part of marketing, authorisations, variations and licensing guidance, medicines, medical devices and blood regulation and safety.
20	The Greatest Fraud, Fluoridation	Philip R. N. Sutton, D. D. sc (Melb) L.D.S, F.R.A.C.D.S. This book is written by a top Dr. whose qualifications are longer than his own name. This excellent publication looks into the fraudulent science of fluoride. The publication provides a historical overview of the top leading Drs including Professor Albert Schatz. Famous for his cure for TB. Rich in detail, the work chronicles the un-established claims for water fluoridation and examines the real medical risks associated with the policy and includes a synopsis of the legal arguments.
21	Guidance on Collaboration between Healthcare Professionals and the Pharmaceutical Industry	Ethical Standards in Health & Life Sciences Group Ethics, transparency, partnership
22	Guide to Part G of the Building Regulations: Sanitation, Hot Water Safety and Water Efficiency: 2010 edition: When is Water Wholesome? (Extract)	Nick Price Copyright RIBA Publishing June 2010. Regulations and standards Understanding the new and substantially updated 2010 Approved Document G which came into force in April 2010 and how it relates to the building trade.
23	Health and Social Care (Safety and Quality) Act 2015	2015 Chapter 28 ©Crown Copyright 2015 Published by TSO (The Stationery Office) Schedule — Objectives of Regulators of Health and Social Care Professions: Section 5
24	Human Medicines Regulations 2012	2012 No. 1916 Medicines Published by TSO (The Stationery Office) Made 19th July 2012 Laid before Parliament 24th July 2012 Coming into force 14th August 2012
25	Investigators Report Queensland Government, Queensland Health	June 2009 Queensland and Health Population Health Queensland Water fluoridation Incident, North Pine Water Treatment Plant
26	Mass Fluoride Poisoning Blamed on Pump, Government	News Tribune (Tacoma, WA) David Hulen, July 2, 1992 Summary report of the Hooper Bay incident in which local residents were killed and poisoned by fluoride due to a broken pump

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
27	Medicinal Products in the European Union: The Legal Framework for Medicines for Human Use In-depth Analysis IN-DEPTH ANALYSIS	This paper gives a general overview of several aspects of EU legislation on human medicines. It describes relevant regulatory rules and procedures, identifies the actors involved, and highlights current practices. The document also takes stock of stakeholder views and concludes with a snapshot of an emerging approach in medicine and its legal approval. EPRS (European Parliamentary Research Service) Author: Nicole Scholz Members' Research Service April 2015 — PE 554.174
28	www.nhs.uk NHS Choices	General source of (dis)information about fluoride. Anyone who is interested in the issue of fluoride as a poison should refer to National Research Council Review.
29	Offences Against the Person Act 1861	1861 Crown Prosecution Document Section 24: Maliciously Administering Poison, and with Intent to Injure, Aggrieve, or Annoy any Other Person.
30	Politically Incorrect Nutrition, Finding Reality in the Mire of the Food Industry	Michael Barbee, Vital Health Publishing, 2004, Overview of the fluoride argument in context to the food industry.
31	Public Assessment Report (UKPAR)	UK Licence No: PL 20117/0239-0240 Morningside Healthcare Limited Medicines and Healthcare Products Regulatory Agency (MHRA) Fluoride 2800 ppm Toothpaste Fluoride 5000 ppm Toothpaste (Sodium Fluoride) Data Sheet on New Product
32	Review of the 2006 United States National Research Council Report: Fluoride in Drinking Water	Robert J Carton PhD, Averill Park, NY, USA Guest editorial review, Fluoride 39(3)163–172 July-September 2006 www.fluorideresearch.org Copyright © 2006 International Society for Fluoride Research. Review of the American National Research Council Report, written by One of America's Top Toxicologists. An excellent source of knowledge on fluoride as a poison.
33	Southampton , Daily Echo High Court Challenge, to Fluoridation Plans for Southampton Rejected	2:30pm Friday 11th February 2011 By Jon Reeve. Hampshire Against Fluoridation, previous blog set up to stop fluoride in Hampshire
34	Statutory Instruments Water, England and Wales The Water Supply (Water Quality) Regulations 2000, 2000 No. 3184	©Crown Copyright 2000 Printed and published in the UK by The Stationery Office Limited UK water laws 2000

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
35	A Summary of an Enquiry by the Royal College of Physicians into Water Fluoridation	A summary of the earlier 1976 document by the Royal College of Physicians. This document is an attempt to reassure the public about fluoride after leaks from the scientific world in the 1970s that the ingredient was not safe and fit for purpose.
36	A Systematic Review of Public Water Fluoridation	Marian McDonagh (1), Penny Whiting (1) Matthew Bradley (1), Janet Cooper (2) Alex Sutton (3), Ivor Chestnutt (2), Kate Misso (1), Paul Wilson (1), Elizabeth Treasure (2), Jos Kleijnen (1) (1) NHS Centre for Reviews and Dissemination, University of York (2) Dental Public Health Unit, The Dental School, University of Wales, Cardiff (3) University of Leicester, Department of Epidemiology and Public Health 2000 © 2000 NHS Centre for Reviews and Dissemination, University of York: Report 18
37	Water fluoridation	21 December 1993 House of Commons Library William Lea: Science and Environment Section Research Paper 93/121 Environment Issues Science & Technology Short discussion paper on fluoride
38	Water Fluoridation and Health	MRC (Medical Research Council) © Medical Research Council September 2002 Working Group Report A report that propagates fluoride as safe. This paper is designed to reassure the public and avoids the issue of fluoride as a toxin.
39	Water fluoridation: Health Monitoring Report for England 2014	Public Health England © Crown copyright 2013, Published March 2014, PHE publications gateway number: 2013547. This report is surprising for its lack of health monitoring – and promises the general public longer life and less cancer under current fluoridation schemes – a total sham!
40	The Water Fluoridation, Proposals and Consultation, (England) Regulations 2013 IA No: 3075 Department of Health Other departments or agencies: Impact	Date:11/02/2013 Impact of regulations setting requirements on local authorities making proposals and consulting local residents about water fluoridation.

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No	ACT / ARTICLE / REPORT / BOOK	AUTHOUR / YEAR / PUBLISHER/ INFO.
41	Weeping and Wailing and Gnashing of Teeth: The Legal Fiction of Water Fluoridation (Article)	David Shaw, School of Medicine University of Glasgow, UK , davidmartinshaw@gmail.com ©The Author(s) 2012, Medical Law International 12(1) 11–27. Decent short article on the issues of fluoride in particular the unsustainable argument that fluoride is safe and legal within the Member States of the EU
42	World Medical Association Declaration of Helsinki Ethical Principles for Medical Research Involving Human Subjects	JAMA Published online October 19, 2013 Corresponding Author: World Medical Association, 13, ch. du Levant, CIB - Bâtiment A,01210 Ferney-Voltaire, France; wma@wma.net. doi:10.1001/jama.2013.281053. Clinical Review & Education Special Communication World Medical Association Declaration of Helsinki. This document deals with the ethics of medicine – and as a result the EU are further distancing themselves from this declaration.

Resources and Bibliography (continued)

*Please note that many of the above articles advocate the use of fluoride and are based upon the EU Laws and Regulations. For the most part, I do not condone what is drafted within these documents. It is however necessary to have at least a basic understanding of the political and legal framework, with which fluoride encompasses. For anyone interested in the topic of fluoride and its toxic effects upon the human body, please refer to my first paper The Fluoride Report, submitted to Wakefield Council 25 August 2015. This document in its bibliography cites over a hundred scientific articles that are obtained from peer reviewed journals. Extensive, this resource is useful for anyone who wishes to investigate the medical science of fluoride, in particular its deleterious impact upon living systems.

Fluoride Sustained Injuries from Drinking Water (India)



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	Appendix 1(b) Table World Health Organisation Data Fluoridated and Non-Fluoridated Regions	134
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Epilogue

Warning Label from a Fluoride Container Prior April 2015
in which the American Government Halved the Rate of Fluoride in Water
from 1.5 ppm to 0.7ppm on Grounds of Adverse Health Risks

HYDROFLUOSILICIC ACID

AVOID CONTACT WITH SKIN, EYES, MOUTH & CLOTHING

AVOID BREATHING FUMES OR VAPOR



**DANGER
POISON**



DO NOT TAKE INTERNALLY

WARNING

DIRECTIONS FOR WATER FLUORIDATION: Application of this product for water fluoridation is subject to approval of all interested state and local health authorities. Its use should conform to the American Water Works Association's "Statement of Recommended Policy and Procedure."

Exact dosage must not raise the total fluoride concentration in drinking water above 1.5 ppm. (U.S. Public Health Service maximum limit)

IF MATERIAL IS SPILLED OR RELEASED, NEUTRALIZE WITH LIME AND DISPOSE AS CALCIUM FLUOSILICIC WASTE

SPECIAL PROTECTION INFORMATION: RESPIRATORS APPROVED FOR FLUORINE, RUBBER GLOVES, CHEMICAL GOGGLES AND A PROTECTIVE APRON OR ACID RESISTANT CLOTHING SHOULD BE USED SPECIAL PRECAUTIONS SHOULD BE TAKEN IN HANDLING AND STORING MATERIAL: AVOID STORAGE IN GLASS CONTAINERS.

WHEN MATERIAL IS CONTACTED WITH FIRE, FLUORIDE GAS MAY BE RELEASED. OVEREXPOSURE TO MATERIAL MAY CAUSE CONSTRICTED BREATHING COUGHING, SKIN REDNESS, OR BURNING OF THE THROAT.

ANTIDOTE

SKIN: COPIOUS AMOUNTS OF WATER FOR 15 MINUTES.
INTERNAL: CONTACT PHYSICIAN
OTHER: CONSULT PHYSICIAN IN THE EVENT INGESTION HAS OCCURRED.
GIVE COPIOUS AND REPEATED AMOUNTS OF WATER OR A WEAK SOLUTION OF CALCIUM CHLORIDE

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Modern Protective Clothing Worn to Protect Workers Against Fluoride Exposure



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Historical Example of Protective Clothing Worn to Protect Workers Against Fluoride Exposure.

On the Container Barrel, the Warning Label Actually States that Fluoride is a POISON!

