**Speech by Ms Kathleen Lynch TD, Minister of State Seanad Eireann**

**Private Members Business**

**Wednesday 1 October 2014**

I acknowledge and thank the Senators for holding this debate. I commend everyone who contributed. The Government will not support it in its current form, but the Government has proposed an amendment that provides for the continuing review of this important issue of public interest and concern.

I would like to propose the Government motion before the House.

INTRODUCTION

Water fluoridation is the adjustment of the natural concentration of fluoride in drinking water to the recommended level for the prevention of tooth decay. Fluoride is a natural mineral used by the body to strengthen teeth and bones. Fluoride occurs naturally in all water supplies at different levels and is found in soil, fresh water, sea water, plants and many foods.

LEGISLATION

Fluoridation began in Ireland in 1964 on foot of the Health (Fluoridation of Water Supplies) Act 1960. The Act and the Fluoridation of Water Supplies Regulations 2007 provide for the making of arrangements by the HSE for the fluoridation of public water supplies. The local authorities, acting on behalf of Irish Water, act as agents for the HSE in providing, installing and maintaining equipment for fluoridation and in adding the fluoride to water and in testing the fluoride content of water to which fluoride has been added.

IS FLUORIDATION ‘MASS MEDICATION’?

In Ireland naturally occurring levels of fluoride tend to be so low that they do not provide significant dental benefits. However, there are exceptions. Among the evidence presented to the Oireachtas prior to the introduction of fluoridation 50 years ago was the discovery that the public water supply serving the village of Patrickswell, Co Limerick had a fluoride content of around 0.7 to 1.0 parts per million. No other water supply in the City or County of Limerick was found to contain fluoride to any significant effect. The then Medical Research Council of Ireland carried out a special examination of children attending Patrickswell National School. It found that the teeth of the children who had been using the naturally fluoridated water supply in that village since birth or the greater part of their lives had less dental decay than the other children attending schools in the rest of the City and County of Limerick.

Artificial water fluoridation replicates a natural benefit by making good a fluoride deficiency in some water supplies. The benefits to oral health brought about by fluoridation have been experienced all over the world. It is hardly surprising that water fluoridation is recognised by the Centres for Disease Control and Prevention of the United States Public Health Service, as one of the 10 greatest public health achievements of the 20th Century.

In the case of Ryan v Attorney General (1964) the Supreme Court did not accept that the fluoridation of water was, or could be described as, the mass medication or mass administration of "drugs" through water, as suggested by the Senators.

The Health Products Regulatory Authority (HPRA) is the competent authority for the licensing of human and veterinary medicines and medical devices in Ireland. The HPRA considers that neither drinking water itself nor the fluoride added to drinking water in the form of fluoride salts or silica fluoride, as defined in the Health (Fluoridation of Water Supplies) Act 1960, should be categorised as medicinal products. The HPRA considers that the fluoridation of drinking water should be seen as a measure consistent with general public health management. Fluoridation can be likened to adding vitamin D to milk or folic acid to cereals.

FLUORIDATION IN OTHER COUNTRIES

More than 370 million people worldwide receive the benefits of water fluoridation.

All EU states have fluoride, in one form or another, at the centre of their public policy approach. For some European countries water fluoridation is impracticable due to the large number of separate water sources; many of these countries choose salt fluoridation or milk fluoridation as an alternative to give the health benefits of fluoride exposure to their citizens.

Several countries have opted to use other approaches to fluoridation, such as investing in large public dental services, as in the Netherlands and in Nordic countries. In such cases, fluoride is administered to children in school clinics.

There is evidence also that other methods of fluoridation such as milk fluoridation or topical applications are not as clinically effective or as cost effective. There is some evidence too that water fluoridation may have particular benefits for persons on lower income.

Major fluoridating countries include the USA, Australia, New Zealand, Canada, Malaysia, Singapore, Hong Kong, Columbia, Chile and several others. Fluoridation coverage in the USA is at about 200 million people. Almost 6 million people in the UK have fluoride added to their water and another 330,000 have naturally fluoridated water. About 10% of the population in Spain have fluoridated water. Salt fluoridation is practised in many South and Central American countries, and also in the EU, notably in France, Germany, and other central European countries. In Ireland, approximately 3 million people have fluoridated water supplies.

WHAT ARE THE BENEFITS?

Fluoride strengthens the teeth; strong teeth result in fewer fillings, fewer extractions, fewer visits to the dentist and lower dental bills. To date, there has been a highly significant reduction in the proportions of decayed, missing and filled teeth of people living in areas supplied by fluoridated drinking water in Ireland when compared to those in non-fluoridated areas. Even with a background of widespread availability of fluoridated toothpastes the difference between fluoridated and non-fluoridated communities remains. A further factor is Ireland’s high level of sugars consumed and the poor tooth brushing habits of our children and adolescents compared to their European counterparts. Accordingly, the use of fluoridated toothpastes alone is insufficient to prevent tooth decay.

By comparing similar fluoridated and non-fluoridated populations we can assess the benefits of fluoridation. The Oral Health of Irish Adults Study 2000 - 2002 showed decay scores were lower among fluoridated groups for all age groups and particularly in the 35- 44 age group.

A recent study by Public Health England (2014) compared fluoridated and non-fluoridated parts of England. It found that in fluoridated areas there are 45% fewer hospital admissions of children aged one to four for dental caries than in fluoridated areas.

The recently published Queensland Child Oral Health Survey 2010-12, commissioned by the Queensland Government in Australia, shows substantial differences between the levels of primary tooth decay in long-term fluoridated Townsville at 39% and the previously non-fluoridated rest of north Queensland at 57%.

WHAT ARE THE RISKS?

I am aware that consumers sometimes express concerns about potential negative effects of drinking fluoridated water. Such concerns are not allayed by scare-mongering and mis-information used by opponents of fluoridation. The only known side effect of optimal water fluoridation is mild dental fluorosis. This has been known about since the 1930s.

Dental fluorosis is a cosmetic or aesthetic condition which refers to the way teeth look. It is not considered to be an adverse health effect. At the levels of fluoride present in Ireland’s water supplies any occurrence of dental fluorosis is very mild or mild and in most cases is only detectable by a dentist as faint white flecks on the surface of the teeth.

Regularly conducted studies on dental health in Ireland, carried out when the upper limit for fluoridation was 1.0 part per million, confirm the low level of dental fluorosis in Ireland. In the majority of cases dental fluorosis generally does not require any treatment. The non-treatment of dental fluorosis has no health consequences.

RESEARCH AND REVIEW

The policy of fluoridation was the subject of a major review in 2000. A Forum on Fluoridation was established and comprised largely of persons with expert knowledge from the fields of public health, dental health, food safety, environmental protection, law and ethics, water quality and health promotion and a consumer representative. The Report of the Forum was published in 2002. Its main conclusion was that the fluoridation of public piped water supplies should continue as a public health measure.

The Forum also recommended that given the increased access to fluoridated toothpaste and in the light of the best available scientific evidence the optimal level of fluoride in water should be redefined from the then level of 0.8 to 1.0 parts per million to between 0.6 and 0.8 parts per million with a target value of 0.7 parts per million. (Parts per million is equivalent to milligrams per litre.) This change was implemented by the Fluoridation of Water Supplies Regulations 2007 which I mentioned earlier.

Another important recommendation of the Forum was that an Expert Body should be established to implement the recommendations of the Forum and to advise the Minister and evaluate ongoing research on all aspects of fluoride. The Irish Expert Body on Fluorides and Health was established in 2004. It continues to share its expertise and provide advice on fluoridation and related matters. Therefore, it considers scientific evidence that has been submitted to examination by other scientists, usually by publication in recognised peer reviewed scientific journals, after such publication has been approved by independent referees. This ensures that the advice provided by the Expert Body is impartial and evidence-based.

The Expert Body is satisfied, having studied current peer reviewed scientific evidence worldwide, that water fluoridation, at the level permitted in Ireland, does not cause any ill effects and continues to be safe and effective in improving the oral health of all age groups. These views are supported by reputable international agencies and valid scientific articles and reviews. It is worth noting that EU law defines a maximum permitted concentration of 1.5 parts per million for public water supplies through its Drinking Water Directives. The Irish levels are set at around half that permitted by EU legislation.

Systematic and comprehensive reviews of fluoridation have been conducted in many other countries too, including the United Kingdom (York Review 2000 and the Medical Research Council 2002), Australia (2007), Canada (2010), the European Union (2011) and New Zealand (2014). None of these reports has established any basis for considering that artificially fluoridated water poses any systemic health risks.

Nevertheless, my Department keeps the policy of water fluoridation under constant review. The work done by the Expert Body and what we learn from international studies have been invaluable. It is important that the Irish public is continually reassured about the use of fluoridated water. It is for this reason that we have asked the Health Research Board to undertake a review of evidence on the impact of water fluoridation at its current level on the health of the population and on the environment. This particular initiative will consolidate the research worldwide using a systematic approach. We expect to have a definitive report from the Health Research Board by the end of this year.

The Department is also collaborating in a University College Cork-led research project, "Fluoride and Caring for Children's Teeth" or (FACCT). The study will consider the impact of changes on the oral health of children, following policy decisions relating to toothpaste use by infants and young children made in 2002 and the reduction in the level of fluoridation in drinking water in 2007. In addition, a study on general and oral health findings in adults linked to the duration of exposure to fluoridated water as part of the Irish Longitudinal Study on Aging (TILDA) has commenced.

ETHICAL ISSUES/ FREEDOM OF CHOICE

I note that the concerns expressed by the Senators who raised the issue today do not relate specifically to health but to an ethical argument: freedom of choice. The suggestion is that it is the right of every Irish citizen to choose whether or not their water is fluoridated. This is troublesome and, as far as I understand, not supported by the Supreme Court. How would this operate in practice? Would there be two separate public water supplies, one which is fluoridated and one which is not? Clearly such a system would be impractical and expensive.

There are parallels with the ban on smoking in the workplace. Some people would like to have the freedom to choose whether to smoke in a workplace. However, the exercise of that choice can have a negative impact on the health of others. We therefore see the value in restricting an individual’s freedom of choice when it impacts upon the health and well-being of others. Is it ethical to stop fluoridation if doing so leads to poor dental health? We have a duty to make the choice, informed by evidence and in the best interests of the public.

Tooth decay has a significant impact on health and wellbeing, and results in high costs to both the individual and the State. It is largely preventable, and therefore a high priority for oral health promotion. The Oireachtas, in its wisdom, introduced fluoridation 50 years ago. The Department of Health continues to review this policy and sees no benefit in its cessation. Indeed, the costs of cessation are likely to be considerable.

Ceasing water fluoridation without putting in place an alternative programme would be extremely costly. Fluoridation is known to decrease dental decay substantially; in the order of 40% in children according to Irish health statistics. The lifetime cost per person is around €1 per annum. Ceasing water fluoridation would lead not only to the additional financial burden of treating tooth decay but to social costs, as tooth decay can lead to pain, trauma, disfigurement, loss of teeth and function, problems with nutrition and growth, and work or school absenteeism.

In some other European countries which do not fluoridate their water, fluoride varnishes are applied to children’s teeth twice a year. In Ireland screening is usually provided twice for children in primary schools, typically in second class and again in sixth class. The introduction of a similar programme in Ireland would mean that children would be seen 16 times in primary school. This would require a very significant investment in personnel and resources. Water fluoridation is the most cost-effective method of preventing dental decay and thus overcoming the poor risk profile in Ireland.

The Nuffield Council on Bioethics in the United Kingdom published a landmark report on ethical issues in public health in 2007. It recognises the tensions between protecting personal autonomy and promoting the welfare of all. To quote from the report:

“From an ethical and practical standpoint, an important dimension of public health policy is therefore to balance the liberal emphasis on choice and autonomy with the imperative to support those who do not have the opportunities to choose because of, for instance, poverty or dependency.”

Given that fluoridated water does not smell or taste differently from un-fluoridated water, the “freedom of choice” argument is essentially a debate about whether individuals who have a personal preference not to drink water containing 0.6 - 0.8 parts per million of fluoride should be able to prevent the rest of society enjoying the considerable benefits afforded by fluoridation. It is the view of the Government that they should not.