

PROGRESS REPORT

2004-2008



The Irish Expert Body on Fluorides and Health
An Corpán Oilte Éireannach um Fluairídí agus Sláinte

Disclaimer

Although this publication is funded by the Department of Health and Children, the views and opinions of the Irish Expert Body on Fluorides and Health expressed in this document do not necessarily state or reflect those of the Minister for Health and Children or her Department.

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CONTENTS

Foreword	3
Membership of the Irish Expert Body on Fluorides and Health	4
Executive Summary	6
Chairman's Address	8
Background	9
Terms of Reference	10
Operating Structure and Procedures	10
Organisational Chart	11
Executive Committee	11
Sub-committees	11
Quality Assurance	13
Communications / Public Health / Health Promotion	17
New and Emerging Issues	23
Secretariat Services	29
Governance	30
Appendix A - Extract from the Irish Expert Body on Fluorides and Health Action Plan 2005	32
Appendix B - Correspondence re Code of Practice on Fluoridation of Drinking Water 2007	36
Appendix C - S.I. No. 42 of 2007 - Fluoridation of Water Supplies Regulations 2007	38
Appendix D- Sixtieth World Health Assembly (Agenda Item 12.9)	42



FOREWORD

The publication of this first progress report by the Irish Expert Body on Fluorides and Health is an important milestone, documenting its achievements since it was established in 2004. Its Action Plan, published in 2005, developed a strategic framework of the recommendations included in the Forum on Fluoridation's Report 2002. This report highlights the progress that has been made in implementing these recommendations.

The Expert Body has a broad representation from areas including the environment, dentistry, health promotion, food safety, biochemistry and the public, and is fully supported by the Dental Health Foundation as secretariat.

Water fluoridation has been very effective in improving oral health and has made a significant contribution to the reduction in dental caries in the population. The safety and effectiveness of water fluoridation has been endorsed by a number of international and reputable bodies such as the World Health Organization, the United States Public Health Service and the United States Surgeon General.

It is important that international studies continue to be monitored and evaluated and that the optimum level of fluoride should be delivered to the population. The Expert Body has assisted my Department in providing advice on all aspects of fluoride provision. It has continued to evaluate and monitor research related to fluoride. It has also assisted in the drafting and preparing legislation to ensure that fluoridation is delivered at optimal level. Ongoing quality assurance of all aspects of the water fluoridation process has been and will continue to be maintained.

I would like to thank the Expert Body for their work since 2004. In particular I would like to thank everyone involved for their contribution to the preparation of this Report.

A handwritten signature in black ink, appearing to read 'Mary Harney', with a long horizontal flourish extending to the right.

Mary Harney TD
Minister for Health and Children

MEMBERSHIP OF THE IRISH EXPERT BODY ON FLUORIDES AND HEALTH

Dr Seamus O’Hickey Dr Brian O’Herlihy	Chairman Vice-Chairman. Public Health Medicine
MEMBER	AREA OF EXPERTISE
Dr Margaret Shannon Professor Denis O’Mullane Dr Joe Mullen Mr Stephen McDermott Professor John Clarkson	Dentistry
Mr Chris Fitzgerald Mr Roger Harrington	Management, Department of Health and Children
Mr Denis Lyons	Ministerial Nominee
Councillor Jack Bourke	Health Boards (former)
Mr Luke Varley Mr Colm Keenan	Engineering & Management (Department of Environment, Heritage and Local Government) Engineering & Management (Department of Environment, Heritage and Local Government) - Water Services Investment Programme
Mr Matt Twomey	Local Authorities
Dr Maire O’Connor	Public Health Medicine
Ms Martina Queally	Health Service Executive
Mr Ray Parle	Environmental Health
Ms Ursula O’Dwyer	Diet and Nutrition
Mr Rowland Reece	Bio-Chemistry
Dr Wayne Anderson	Food Safety
Professor William Binchy	Legal/Ethics
Mr Michael Kilcoyne	Consumer Representative
Dr Justin Roche	Paediatrics
Ms Hilary Coates	Health Information Quality Authority

Past members and contributors to the Expert Body on Fluorides and Health include:

Dr Gerard Gavin from the field of Dentistry

Mr David Moloney, Management, Department of Health and Children

Mr Greg Canning, Management, Department of Health and Children

Mr Oliver Fogarty, Engineering and Management, Department of Environment, Heritage and Local Government

Mr Enda Falvey, Engineering and Management, Department of Environment, Heritage and Local Government

Ms Dorothy Gallagher, Public Representative

Ms Bidy O'Neill, Health Promotion, Department of Health and Children

Dr Paul Beirne from the field of Social Research

Mr Darragh Page from the field of Environmental Protection

Secretariat:

Ms Deirdre Sadler – Director

Ms Patricia Gilsenan-O'Neill – Corporate Services Manager

Ms Etain Kett – Senior Quality and Oral Health Officer

Ms Pheena Kenny – Health Promotion Officer

EXECUTIVE SUMMARY

The Irish Expert Body on Fluorides and Health was established by the Minister for Health and Children in April 2004 with the charge of overseeing the implementation of the 2002 Forum on Fluoridation's recommendations and ensuring that the systems employed to give effect to these recommendations are sound, transparent and meet the highest standards of quality assurance and accountability.

Its membership includes a broad representation from the areas of dentistry, public health medicine, engineering, paediatrics, biochemistry, diet/nutrition, management, environment and the public. It has a consumer input in terms of members of the public and representatives of consumer interests in addition to the necessary scientific, managerial and public health inputs.

Working in close partnership with its members under the committees of Quality Assurance; Communications, Public Health and Health Promotion; and New and Emerging Issues, the Expert Body has made a significant level of progress on the implementation of the Forum on Fluoridation's recommendations.

Key highlights reported in this Progress Report include:

- The launch of an Action Plan identifying specific actions for the delivery of these recommendations.
- National Census on Fluoridation of Public Water Supplies.
- Assisting the Department of Health and Children with the drafting and preparation of the amending legislation to enable the lowering of the levels of fluoride in drinking water to become effective on 1st July 2007.
- The lowering of the amount of fluoride being added to water from 0.8-1.0mg/l to 0.6-0.8mg/l.
- Protocol for the Independent Testing of Hydrofluosilicic Acid (HFSA).
- A comprehensive review of the current systems of delivery of fluoride.
- The development of a detailed Code of Practice on the fluoridation of drinking water to ensure quality assurance across the delivery of water fluoridation. (The Code sets standards and governs all quality systems and practices required for fluoride provision from storage, dosage, safety and technical aspects through to practical logistics).
- The instigation of a national audit of all fluoridation processes in water treatment plants in Ireland.
- The development of a structured practice for assessing and monitoring international and national data in relation to fluoride and its contribution to oral health.
- The evaluation of published research and opinion
- The monitoring of new emerging issues on fluoride and its effects on health and related matters.
- The development of information resources relevant to specific stakeholders.
- Presentation to the Joint Oireachtas Committee on Health and Children
- Proposals for Priority Research in Fluorides and Health

With the statutory instrument now in place (July 2007), the Expert Body is continuing its work across the recommendations outlined in the Forum on Fluoridation's report with a focus on rolling out the many communications and other education aspects of its remit.

- National Oral Health Policy
- The Department of Health and Children announced the

development of a new National Oral Health Policy, in conjunction with the Health Service Executive (HSE) in October 2007. The process of developing this policy is well underway. It allows the Department to critically examine many issues currently on the dental service's agenda in a strategic context and facilitate the planning and re-orientation of oral health services over the coming five to ten years.

The development of this policy is being carried out in partnership with the HSE and in collaboration with other stakeholders. The Expert Body is a member of its Consultative Panel established to inform this policy development process.

The Expert Body in its submission (2008) to the Oral Health Policy Review Group outlined its main priorities for the next five years as follows:

1. To respond to the recommendation in the Programme for Government 2007 that a national study of total fluoride intake be undertaken;
2. To complete the work on the Forum's Recommendations 3 and 4, which relate to fluoride toothpaste use and collaboration with the oral healthcare industry;
3. To establish and continue to update best practice in fluoridation technologies;
4. To create appropriate procedures to monitor relevant activities in other organisations, for example the institutions of the European Union and the World Health Organization;
5. To audit current fluoridation practices;
6. To continue to evaluate all New and Emerging Issues on fluorides and health.
7. To continue and expand the collection of information on general health in fluoridated and non fluoridated communities in order to respond to Recommendation 6 of the Report of the Forum on Fluoridation.

CHAIRMAN'S ADDRESS

On behalf of the Irish Expert Body on Fluorides and Health it is a pleasure to present this document on its work over the past four years.

Since its establishment in 2004 a key element of the work of the Expert Body has been the continual assessment and monitoring of international and national research data in relation to fluoride and its benefits to oral health.

The Body's terms of reference also include overseeing the implementation of the Recommendations of the Forum on Fluoridation (2002).

One of the first priorities for the Expert Body was to ensure the lowering of the fluoride level in drinking water to a range of 0.6 to 0.8 parts per million (ppm) (i.e. 6 to 8 milligrams (mg) per litre), with a target of 0.7ppm. The best available and most reliable scientific evidence indicates that at the maximum permitted level of fluoride in drinking water at 1 part per million, human health is not adversely affected. The legislation to enable lowering of the levels took effect from 1st July 2007. Much of the Expert Body's work was involved in assisting the Department of Health and Children with the drafting and preparation of the required amending legislation, i.e., A Statutory Instrument.

In tandem with the preparation of this amending legislation, the Expert Body undertook a review of the current systems of delivery of fluoride. Subsequently, a comprehensive Code of Practice on the Fluoridation of Drinking Water was developed to ensure efficient and effective implementation of the technical requirements of the procedures for the fluoridation of drinking water. It was distributed to all local authorities and other parties involved in the fluoridation of public water supplies.

As an independent, evidence-based advisor to the Minister for Health and Children, the Expert Body also continues to liaise with members of the media and groups opposing water fluoridation policy to dispel scientifically unfounded connections drawn between

water fluoridation and the incidence of a range of diseases. Indeed, as an Irish public health policy implemented for more than 40 years, water fluoridation has been the single most effective and efficient method for delivering fluoride for the benefit of all sections of society, irrespective of social and economic position.

The significant level of progress made by the Expert Body over the past four years allows for ongoing initiatives and future challenges, in line with the Forum Report, to be taken to the next stage of their development by the Expert Body.

On behalf of the Expert Body, I acknowledge with much gratitude the support and funding received from the Minister for Health and Children, Mary Harney T.D. and her Department who have been a valuable and constant resource to the Expert Body and its Secretariat.

Great gratitude and thanks are due to all my fellow members of the Expert Body who give their time and expertise so willingly and so generously. Individually, their independence and impartiality ensures a powerful asset to the Expert Body's collective thinking and outputs.

I gratefully acknowledge the support and co-operation of the many stakeholders and organisations in the implementation of the Expert Body's important work.

I would also like to express sincere thanks to the Dental Health Foundation for the provision of Secretariat services, its Director Ms. Deirdre Sadlier, Corporate Services Manager Patricia Gilsonan - O'Neill, Senior Quality and Oral Health Officer Ms. Etain Kett and Health Promotion Officer Ms. Pheena Kenny. Their tireless efforts in fulfilling their role very effectively and efficiently as Secretariat to the Expert Body has been invaluable.

Dr Seamus O'Hickey
Chairman

BACKGROUND

The Minister for Health and Children, Micheál Martin TD established the Irish Expert Body on Fluorides and Health in April 2004. The ongoing work of the Expert Body is to identify and implement the necessary measures to ensure that this vital element of public health policy is delivered in line with the Forum on Fluoridation Report (2002) Recommendations and that the systems employed to give effect to these are sound, transparent, and meet the highest standards of quality assurance and accountability.

The Forum on Fluoridation was set up from September 2000 to October 2001 (by the then Minister for Health and Children Micheál Martin TD) to answer the following 3 questions:

- Has water fluoridation improved the oral health of the Irish population?
- Is there scientific evidence that water fluoridation at a level of 1 part per million (mg /l) endangers human health?
- What recommendations would you make?

The members present duly expressed their views on these three questions. The recommendations and conclusions are presented below:

Overall Conclusions

- Water fluoridation has been very effective in improving the oral health of the Irish population, especially of children, but also of adults and the elderly.
- The best available and most reliable scientific evidence indicates that at the maximum permitted level of fluoride in drinking water at 1 part per million, human health is not adversely affected.
- Dental fluorosis (a form of discolouration of the tooth enamel) is a well recognized condition and an indicator of overall fluoride absorption, whether from natural sources, fluoridated water or the inappropriate use of fluoride toothpaste at a young age.
- There is evidence that the prevalence of dental fluorosis is increasing in Ireland.

Recommendations

The recommendations of the Forum on Fluoridation are intended to assist health care providers, public health officials, policy makers and the public in achieving maximum protection against dental decay and to minimise the occurrence of dental fluorosis.

Recommendation 1:

Policy Aspects of Water Fluoridation

Recommendation 2:

Technical Aspects of Water Fluoridation

Recommendation 3:

Fluoride Toothpaste

Recommendation 4:

Oral Health Care Industry

Recommendation 5:

Infant Formula

Recommendation 6:

Fluoride Research

Recommendation 7:

Education, Information and Public Participation

Recommendation 8:

Public Health and Professional Practice

TERMS OF REFERENCE

The terms of reference of the Expert Body on Fluorides and Health as set out when established in April 2004 are:

1. To oversee the implementation of the recommendations of the Forum on Fluoridation.
2. To advise the Minister and evaluate ongoing research - including new emerging issues - on all aspects of fluoride, its delivery methods as an established health technology and as required.
3. To report to the Minister on matters of concern at his/her request or on the Body's own initiative.

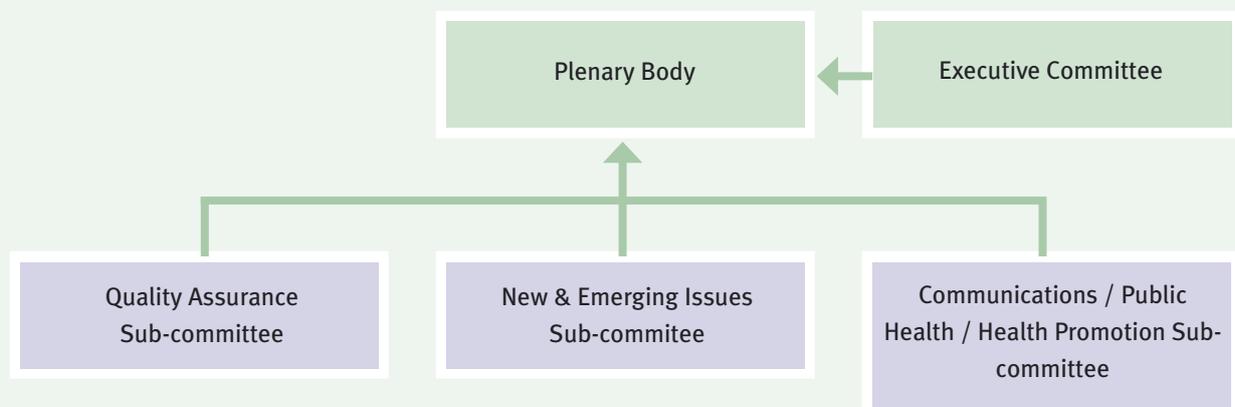
The Action Plan, launched in 2005, to give effect to the work of the Expert Body, based on the key recommendations of the Report of the Forum on Fluoridation, sets out specific actions for the delivery of these recommendations. Its highest priority, as laid out in the Action Plan, is to ensure the implementation of the recommendations of the Forum on Fluoridation, an outline of which is provided in Appendix A.

OPERATING STRUCTURE AND PROCEDURES

A strategic framework was developed to aid and direct the Expert Body in identifying and implementing the necessary measures required by the Forum's recommendations. Its governance arrangements are set out on pages 30–31.

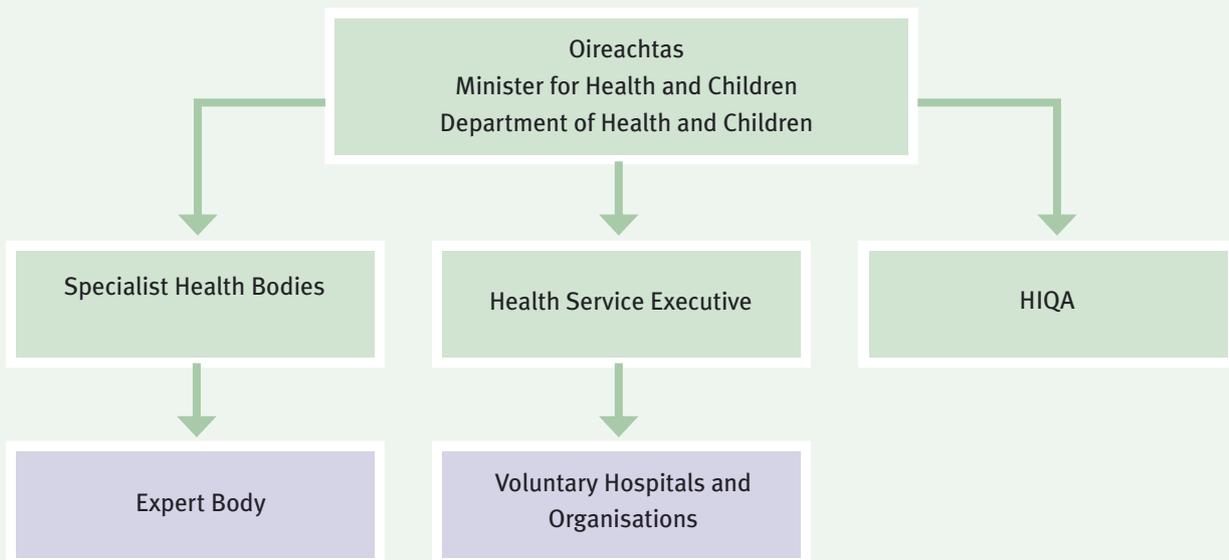
The Expert Body has met in Plenary Session five times a year. The Secretariat keeps a formal minute book with a record of proceedings of all meetings. A quorum of nine members is needed for decisions to be ratified at meetings. The Chairman appointed by the Minister, reports to the Minister in accordance with the Expert Body's terms of reference and has the casting vote in the event of a tied vote during a meeting.

The Executive Committee meets five times a year and is responsible for the management of the Expert Body meetings and for ensuring the compliance with Government standards and guidelines. The Chairperson of the Executive works with the Director and staff of the Secretariat to ensure the effectiveness of the Expert Body's work and implementation of decisions.



Organisational Chart

Adapted from Fig. 1. Structure of the Irish Health System, Statement of Strategy 2008 - 2010, Department of Health & Children



Executive Committee

The Executive Committee has been established by and reports to the Expert Body. The core work of the Executive Committee involves providing strategic direction and overseeing the operational matters of the Expert Body, as well as providing guidance and direction to the Secretariat in relation to its daily activities for the Expert Body. The Executive Committee comprises of the following members:

Dr. Seamus O’Hickey (Chair)
 Dr. Brian O’Herlihy (Vice-Chair)
 Professor John Clarkson
 Mr. Stephen McDermott
 Dr. Joe Mullen
 Professor Denis O’Mullane
 Ms. Deirdre Sadlier (Director, Secretariat)
 Dr. Máire O’Connor from January 2007
 Mr. Luke Varley
 Ms. Martina Queally until January 2007

SUBCOMMITTEES

Three sub-committees were established to assist in achieving the priorities of the Expert Body. These are in line with the recommendations, numbered from one to seven of the Forum on Fluoridation’s 2002 Report.

The Chairman of the Expert Body assigns responsibility for the implementation of recommendation number eight to members of the Expert Body as appropriate.

The Chairperson of each sub-committee is responsible for managing and coordinating the activities of the sub-committee. All key outputs and recommendations of the sub-committees are reviewed by the Expert Body in plenary session prior to publication or issue to any other body or persons.

Quality Assurance

The Quality Assurance sub-committee was established in order to develop policies and frameworks through which to ensure quality of all elements of the water fluoridation process.

The core of this sub-committee's work involves reviewing legislation, regulations, procedures and practice as well as developing and reviewing guidelines, codes of practice and audit processes, reviewing audit reports, sampling data and analyses and preparing reports for consideration by the Expert (Plenary) Body and driving improvements in the national fluoridation programme.

Committee Members:

Mr. Stephen McDermott (Chair until June 2008)
 Dr. Wayne Anderson
 Mr. Roger Harrington
 Mr. Colm Keenan
 Dr. Jacinta McLoughlin (co-opted member)
 Mr. Ray Parle (Acting Chair from June 2008)
 Mr. Luke Varley

Communications/Public Health/Health Promotion

The Communications, Public Health and Health Promotion sub-committee plays a role in devising and implementing the best strategies for communicating with the Expert Body's various stakeholders.

The Expert Body places an emphasis on keeping up to date with all contemporary literature on health risk communication to determine the most effective techniques for communicating information on environmental and public health issues in relation to fluorides and health.

Committee Members:

Dr. Maire O'Connor (Chair) (since January 2007)
 Councillor Jack Bourke

Mr. Michael Kilcoyne
 Mr. Denis Lyons
 Dr. Mary O'Farrell (co-opted member)
 Ms. Martina Queally (Chair until January 2007)
 Dr. Margaret Shannon
 Professor Helen Whelton (co-opted member)

New and Emerging Issues

Through the New and Emerging Issues sub-committee, the Expert Body continues to monitor new and emerging issues on fluoride and health and related matters. The focus of the New and Emerging Issues sub-committee is to monitor new and emerging issues on fluoride and its effects on health and related matters. Reporting processes have been established to ensure that the members of the Expert Body have access to details of any relevant new and emerging issues. This provides the basis for the Expert Body's evaluation of all aspects relevant to fluoride and its delivery.

In 2006 and onwards the Expert Body was active in influencing the objectives, scope and deliverables from publicly funded research. During this time, it prioritised and dealt with research matters emanating from a number of sources. These included the many international bodies which have looked at fluoride research priorities recently.

Committee Members:

Dr. Joe Mullen (Chair)
 Professor John Clarkson
 Ms. Ursula O'Dwyer
 Professor Denis O'Mullane
 Dr. Brian O'Herlihy
 Dr. Justin Roche
 Mr. Rowland Reece

QUALITY ASSURANCE

National Census on Fluoridation of Public Water Supplies

In 2005, in line with recommendation 1, the Expert Body carried out a National Census on Fluoridation of Public Water Supplies (PWS) to determine the status of fluoridation in Ireland. The census formed the basis of the Expert Body's work in amending drinking water regulations to lower fluoride levels in Irish public water supplies as outlined in its 2005 Action Plan, available for download on www.fluoridesandhealth.ie

In addition to the Expert Body, the following organisations were involved in gathering the required information together for this census: the Department of Health and Children, the Department of the Environment, Heritage and Local Government, the Principal Dental Surgeons of the Health Service Executive with responsibility for Fluoridation, the Principal Environmental Health Officers, Directors of Water Services and the Local (sanitary) authorities.

At that time, overall, approximately 70 per cent of public piped water supplies (PPWS) are fluoridated while the remaining 30 per cent are not fluoridated. An overview of the census suggested that there was a lack of understanding by many involved in water fluoridation as to what their responsibilities were in relation to implementing the regulations.

This census was an essential prerequisite to the process of proposing amendments to the regulations.

National Audit of Water Treatment Plants

In order to fulfil Recommendation 2, the Expert Body has put in place a national audit of water fluoridation treatment plants with reference to the Code of Practice on the Fluoridation of Drinking Water, 2007, drawn up by the Expert Body (See Circular 6/2007, Appendix B). The audit is being carried out on the Water Fluoridation process at water treatment plants in Ireland. Selected plants will be geographically dispersed throughout the country and

will represent the full range of sizes and complexity of water fluoridation plants in Ireland. A self-assessment process will be implemented for all water treatment plants which are required to add fluoride to the public piped water supplies in order to highlight deficiencies so that all necessary improvements can be made.

The scope of the audit is in compliance with the Health (Fluoridation of Water Supplies) Act 1960 and associated regulations, Fluoridation of Water Supplies Regulations 2007 (SI 42/2007), the Code of Practice on the Fluoridation of Drinking Water and the European Communities (Drinking Water Regulations) 2007.

It is scheduled for completion in 2009.

Code of Practice on the Fluoridation of Drinking Water

The Expert Body has prepared a Code of Practice on the Fluoridation of Drinking Water in consultation with all of the relevant stakeholders in order to fulfil Recommendation 2. This has been developed to ensure



efficient and effective implementation of all necessary technical aspects involved in the procedures required for the fluoridation of drinking water by all personnel involved in the process. This detailed code of practice will ensure that:

- The fluoride concentration of fluoridated water supplied to the consumer will be within limits set by Irish and European legislation.
- The potential for environmental contamination from hydrofluosilicic acid spillages is minimised.
- The health and safety of fluoridation plant personnel is enhanced.

The Code of Practice (CoP) was distributed to all County and City Managers, Directors of Services (Water), electronically and in hard copy, in August 2007 and is available on http://www.dohc.ie/publications/fluoridation_2007.html

The CoP applies to all water treatment plants where fluoridation of public drinking water supplies using hydrofluosilicic acid as the fluoride source, is, or is intended to be carried out. The key objective of this Code of Practice is the achievement of high quality fluoridated water supplies that will improve the oral health of those members of the public who receive fluoridated drinking water. In effect, this code of practice will be the first compliance guidance document to govern this particular aspect of water fluoridation policy and supersedes Circular No. 14/1977 (of 1st July 1977).

Input into the Health Service Executive (HSE) Tender Proposal and award of contract for HFSA

During 2004, the Expert Body worked closely with the Health Services to assist in the preparation of a Request for Tender (RFT) for the supply and delivery of chemicals used for the treatment of water intended for human consumption – Hydrofluosilicic Acid. It is outlined in

this RFT document that the HFSA to be supplied, shall be a Primary Product and not a By-Product. The HFSA used in Ireland is derived from fluorspar (a mineral containing between 30 to 98 per cent calcium fluoride). It is produced in Spain by a company called Derivados Del Fluor, S.A. The HFSA is imported into Ireland as a liquid, by Chemifloc the successful tenderer and contractor. The liquid is brought in concentrated form to Chemifloc's premises at Shannon, Co. Clare from where it is diluted, and supplied, in standardised form at the required concentration to the water treatment plants throughout the state.

The current contract for the supply and delivery of HFSA expires 31st March 2009. A group has been established by the HSE to advice and assistance in drawing up a new contract. The HSE has invited the Expert Body to participate on this user group.

Report on site visit to supplier of HFSA (Chemifloc, Shannon)

In October 2005, representatives of the Expert Body conducted a site visit to Chemifloc in Co. Clare as support to Recommendation 2, to view the process and procedures for the supply of Hydrofluosilicic Acid to the Local Authorities for fluoridation of public piped water supplies. The Expert Body found the quality system at Chemifloc to be efficient and found that procedures were in place to ensure that the finished product being delivered to the Local Authorities complied with specifications.

Report on site visit to Derivados Del Fluor, Spain

In September 2006, representatives of the Expert Body conducted a site visit of the Derivados Del Fluor plant in Cantabria, Spain as support to Recommendation 2. The primary purpose of the visit was to see and assess the process of hydrofluosilicic acid extraction and its production process, and the systems and controls in

place to ensure the consistency, purity and safety of the product as supplied for use in fluoridation of drinking water in Ireland.

The Expert Body was satisfied that production is in compliance with quality, environmental and safety systems and procedures in place and that Derivados del Fluor strives to ensure that these systems and procedures are maintained and continuously reviewed.

Protocol for the Independent Testing of Hydrofluosilicic Acid (HFSA)

In consultation with the Health Service Executive (HSE), the Expert Body has prepared a protocol for the independent testing of Hydrofluosilicic Acid (HFSA) (Recommendation 2) which is used for the fluoridation of water intended for human consumption. The protocol clearly identifies the guidelines required for the independent testing of HFSA, to meet the requirements of the National Fluoridation Programme. As provided in the Statutory Instrument the specification for HFSA is as follows:

- 10.9% by weight of HFSA, subject to a tolerance of $\pm 0.3\%$
- Shall contain no other soluble mineral or other organic substance in quantities capable of a deleterious or injurious effect upon health.

Each batch of HFSA 10.9% that is produced by the supplier has a representative sample taken and analysed and a Certificate of Analysis is produced stating the actual test results. A Certificate of Analysis must accompany each delivery of HFSA to each water treatment plant. Additionally, a sample is also taken from each tanker before it leaves the suppliers' site. This sample is retained for analysis in the event of any queries on the quality of the material.

Fluoridation of Water Supplies Regulations 2007

In consultation with the Expert Body, a new Statutory Instrument (SI) was drafted, approved and issued by the Minister for Health and Children in March, 2007 to give legal effect to the Fluoridation of Water Supplies Regulations, 2007 (see Appendix C).

In line with the Expert Body's Action Plan 2005 and Recommendation 1, the Statutory Instrument requires that the amount of fluoride which may be added to public water supplies shall be such that the water will contain not more than 0.8 milligrams and not less than 0.6 milligrams of fluoride per litre (mg/l) of water.

It stipulates that fluoride may be added to public water supplies either in the form of hydrofluosilicic acid complying with the specification for that substance in Schedule 1 of the Regulations, or in such other form as may be approved by the Minister.

The SI provides for Sanitary (Local) Authorities to perform the following in relation to the fluoridation of public piped water supplies:

- provide, install and maintain equipment for fluoridation
- make arrangements for the addition of fluoride to the water
- test the fluoride content of the water to which fluoride has been added.

The SI also makes provision for the equipment used for the fluoridation of public water supplies and for the daily determination of the fluoride content of public water supplies to which fluoride has been added.

The enactment of this new Statutory Instrument marks an important milestone in the work of the Expert Body and lays the foundation for all the rest of the activities of its remit to be implemented.

Health Information and Quality Authority (HIQA)

In 2006, the Expert Body made a submission to the Legislation Unit of the Department of Health and Children in relation to the proposed legislation establishing the Health Information and Quality Authority (HIQA) and the Office of the Chief Inspector of Social Services.

The Expert Body continues to support the development of the role of the HIQA, which was introduced in May 2007, and recognises the establishment of this Authority as an important initiative which should provide for significant improvements in the provision of quality and safety in the health services.

The functions of the HIQA conform to specific actions set out in the Expert Body's Action Plan 2005, including the development of new auditing procedures and a Code of Practice for the Fluoridation of Drinking Water.

Food Safety Authority of Ireland and Lidl

In March 2008, the Food Safety Authority of Ireland, (member of the Expert Body) contacted the supermarket chain, Lidl, and requested co-operation in the immediate removal of fluoridated salt from sale in their stores in Ireland. It was explained to them that given the fluoridation of public water supplies in Ireland and the use of fluoridated toothpaste that there is no requirement for products like salt that are fortified with fluoride on the Irish market. It was highlighted to them that such a product would contribute to an increased level of enamel fluorosis in certain segments of the community which regularly use such a product. Lidl agreed to take this important health protection step and ceased ordering of the product in April 2008.



COMMUNICATIONS / PUBLIC HEALTH / HEALTH PROMOTION

The Expert Body developed an integrated communications strategy as per (Recommendation 7), the emphasis of which is on developing and disseminating relevant information and communications materials to a diverse range of audiences from health care professionals to the general public. Its work with the health care profession is to try to ensure that the public receives accurate and up to date information. A targeted programme of public information is being planned from 2007 following the passing of the amended legislation.

The aims of the Communication Strategy are to:

- Create awareness among the general population about the Recommendations of the Forum on Fluoridation Report and the Action Plan of the Expert Body;
- Create positive awareness about the safety and quality assurance of water fluoridation and fluoride including the benefits and any risks associated with their use;
- Provide clear, impartial and scientifically based information on the role of fluorides;
- Position the Expert Body in the public mind as an independent source of information on fluoride and oral health issues;
- Communicate proactively with audiences.

As part of its communication strategy, the Expert Body works to:

- Building strong cooperation and partnerships across the health, education, community and commercial services sectors.

- Utilise evidence based resources developed and tested for the system by the Dental Health Foundation with its collaborative partners.
- Liaise with relevant sections of the Irish media as appropriate to the audiences being addressed and the messages being delivered.

In line with Recommendation 7 of the Action Plan 2005, an information leaflet has been developed on the safety and efficacy of fluoride in preventing dental caries (tooth decay) for distribution to healthcare professionals involved in advising the public on all aspects of fluoride and public health.

EU Directive

Communications at European Level

In 2008 the Irish Expert Body on Fluorides and Health was notified by the European Commission that the Commission will be consulting the EU Scientific Committee on Health and the Environment seeking an opinion for an updated assessment of the safety profile of fluoride and any potential risks that may be associated with the public's exposure to fluoride from all sources, and that as part of that process, the Commission will invite the Expert Body to submit information to it as part of the public consultation.

The Commission has also acknowledged the input of the Expert Body earlier in 2008 on the question of water fluoridation in response to media coverage on the issue of fluoridation and children's health. In this regard, the adoption of Commission Directive 2007/53/EC (amending Council Directive 76/768/EEC concerning cosmetic products for the purposes of adapting Annex III thereto to technical progress) is pertinent. It states:

“Fluorine compounds are currently listed in and subject to restrictions and conditions laid down in Annex III, Part 1 of Directive 76/768/EEC. The Scientific Committee

on Consumer Products (SCCP) is of the opinion that if the sole source of fluoride exposure is toothpaste containing fluoride between 1,000 to 1,500 ppm, there is a minimal concern that children under the age of six will develop fluorosis, provided that such toothpaste is used as recommended.”

Accordingly, the Directive requires the following labelling be used on fluoride toothpastes:

“Children of 6 years and younger: Use a pea sized amount for supervised brushing to minimize swallowing. In case of intake of fluoride from other sources consult a dentist or doctor.”

This has now been implemented into Irish Law. Given Ireland’s Water Fluoridation Policy position (whereby fluoride is contained in the public water supply), the Irish Expert Body on Fluorides and Health contacted the European Commission and raised its opinions in relation to the fluoridation of water supplies in Ireland and subsequently the Commission in November 2008 confirmed its response as follows:

“The practice of water fluoridation falls in the area of competence of the Member States provided the maximum fluoride levels in drinking water are below the limits set by the Water Framework Directive (Directive 2000/60/EC). This is indeed the case in Ireland. We are grateful for the argumentation and documentation supporting the Irish Expert Body’s views on water fluoridation in the Republic of Ireland.

As there is a relatively narrow margin between the beneficial effects and the detrimental effects of fluoride, it is essential, from a public health point of view, that the Commission closely monitors developments concerning the hazard profile of fluoride, the exposure of humans to fluoride from the various natural and anthropogenic sources (e.g. food, water/drinks, consumer products etc) and the epidemiology of fluoride.

To this end, in early 2009, the Commission intends to request the Scientific Committee on Health and the Environment to deliver an opinion for an updated assessment of the safety profile of fluoride and any potential risks that may be associated with the exposure of the public to fluoride from all sources.

To ensure that all available evidence is taken into account, the Commission also intends to solicit any available information on the safety of fluoride via a public consultation process in line with the Stakeholder Dialogue Procedures pertaining to the functioning of its Scientific Committees. We would invite the Irish Expert Body on Fluorides and Health to submit, at that occasion, any additional information that may be relevant to the subject matter.”

As the Directive’s specification (above) does not appear to properly cater for Ireland’s position (whereby fluoride is also present in the public water supplies), the Expert Body is concerned that the Directive’s current formulation may not adequately accommodate the Irish situation. Accordingly, the Expert Body will advise the Minister as part of the Commission’s Stakeholder Dialogue Procedure in order to familiarise the Commission with the Irish situation, and this may ultimately necessitate the adaptation of the existing Directive.

Joint Oireachtas Committee on Health and Children

In February 2007, the Expert Body was invited to appear before the Joint Oireachtas Committee on Health and Children as part of that Committee’s deliberations on a draft report prepared by one of its own members on fluoridation. During the appearance, the Expert Body emphasised the status of water fluoridation as one of the most widely studied public health initiatives in the world with a proven track record over 40 years of preventing dental caries in Ireland.

The Committee was advised that the Expert Body believes there is overwhelming evidence that water fluoridation significantly benefits Irish dental health and through this, benefits overall health. In addition, the Committee was informed that results of a recent All-Ireland Survey of oral health clearly demonstrates the significant benefit of fluoridating drinking water.

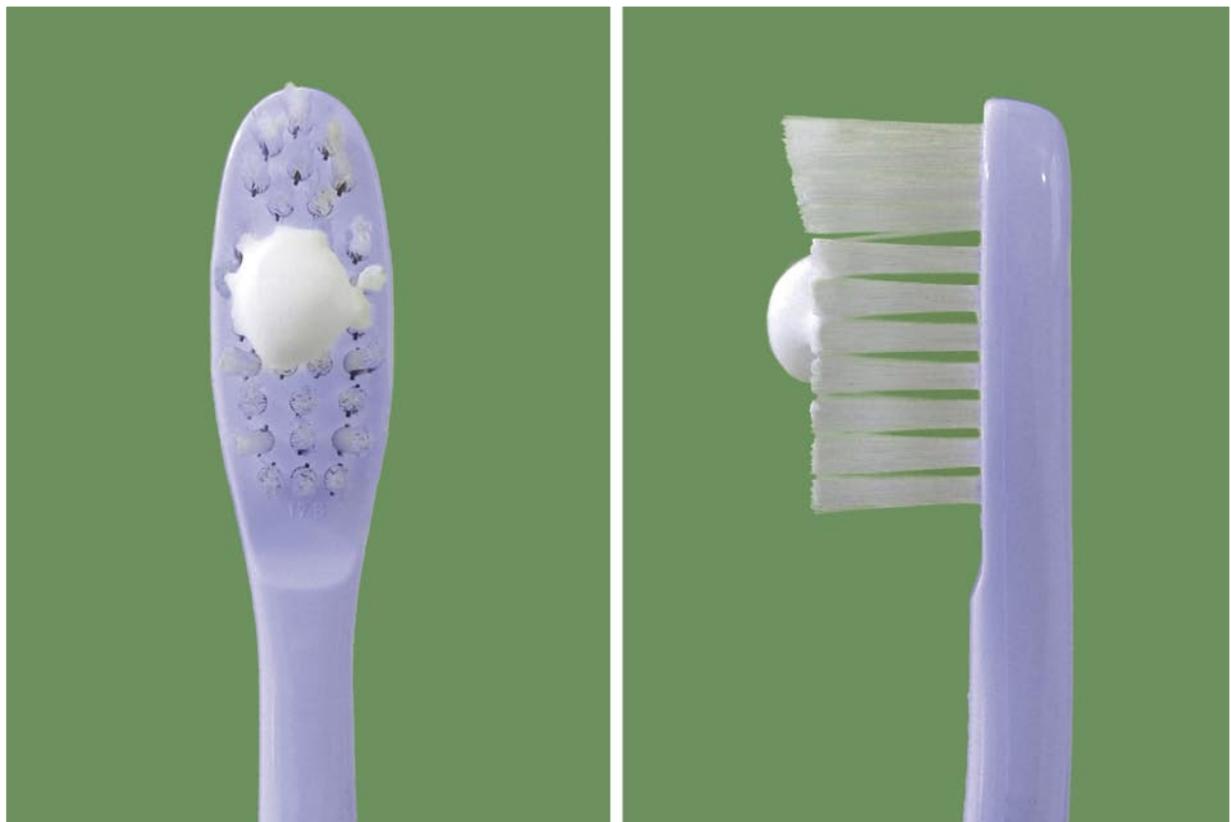
The Expert Body emphasised that there is no evidence to show a health risk to babies of any age from consumption of fluoride in breast milk, infant formula, water or foods at the levels of fluoride observed in Ireland. Thus, all intake levels of fluoride by infants within the usual dietary intake range are considered safe. Based on the conclusion of a Food Safety Authority of Ireland risk assessment published in 2002, the Expert Body informed the Committee that it accepts that

the risk of moderate dental fluorosis of the permanent dentition is very low in formula-fed infants aged 0-4 months residing in areas where fluoride levels do not exceed the statutory limit.

Before the dissolution of the 29th Dáil the Joint Oireachtas Committee on Health and Children adopted the following resolution:

“The Joint Committee on Health and Children calls on the Minister for Health and Children to direct the Health Service Executive to carry out a national study of total fluoride intake; and for the draft Terms of Reference on such study to be forwarded to the Joint Committee for its consideration before they are finalised by the Minister”.

Pea-sized amount of fluoride toothpaste



National and International Relations

During the period 2004 – 2008, members of the Expert Body participated in various national and international conferences and meetings as outlined below:

2008	
Council of European Chief Dental Officers Paris, France	November 2008
2nd National Water Summit Dublin	October 2008
FDI Annual World Dental Congress Stockholm, Sweden	September 2008
European Association of Dental Public Health Congress Heidelberg, Germany	September 2008
National Fluoride Information Centre MANDEC Manchester, UK	May 2008
Council of European Chief Dental Officers Ljubljana, Slovenia	May 2008
2007	
Council of European Chief Dental Officers Lisbon, Portugal	November 2007
FDI, Dubai, UAE	October 2007
World Health Organisation, 60th World Health Assembly Geneva, Switzerland	May 2007
Council of European Chief Dental Officers Jerusalem, Israel	May 2007
International Association for Dental Research (IADR) New Orleans, USA	March 2007
Researching Water Fluoridation: Evaluation and Surveillance. Manchester, England	January 2007
2006	
Irish Dental Association Annual Conference Dublin	April 2006
European Association of Dental Public Health, Prague, Czech Republic	September 2006
IADR – Expert Body Sponsored, International Fluoride Symposium Dublin	September 2006
Derivados del Fluor Hydrofluosilicic Acid Producers Bilbao, Spain	September 2006
Society of Chief and Principal Dental Surgeons of Ireland, Annual Conference Adare, Co. Limerick	October 2006
Global Consultation on Oral Health Through Fluoride, Geneva, Switzerland	November 2006

2005

8th World Congress on Preventive Dentistry, Liverpool, England	September 2005
National Fluoridation Symposium, American Dental Association (ADA) Conference, Chicago, USA,	July 2005
European Organisation for Research on Caries & Fluorides (ORCA), 52nd Congress, Indianapolis, USA	July 2005
Chemifloc Ltd, Importers & Suppliers of HFSA Shannon, Co Clare	Oct 2005

2004

Council of European Chief Dental Officers, Oslo, Norway	June 2004
British Fluoridation Society, London, England	June 2004
European Association of Dental Public Health, Oporto, Portugal	Sept 2004

Industry Liaison

In line with Recommendation 4 of the Forum on Fluoridation Report (2002) regarding the Oral Health Care Industry, the Expert Body continues to liaise with key industry parties to ensure that they are aware of the latest current recommendations of the Body and to discuss issues of joint interest. This is particularly pertinent in relation to fluoride-containing products for use by adults and children and to ensure that best practice is adhered to in the manufacture and marketing of such products for the Irish population. At all times in any engagement with interested parties on water fluoridation, the Expert Body stresses its impartiality and independence. These attributes are fundamental to the Expert Body's own methods of work.

Fluoride Toothpastes

In September 2006, The Expert Body contacted Colgate and the Irish Dental Association (IDA) to communicate its concerns around the promotion of paediatric formulation toothpastes for children under the age of 7 during the Colgate Oral Health Month 2006, run in partnership with the IDA.

The Expert Body advised Colgate and the IDA that the use or promotion of any toothpastes for children up to the age of 2 is inconsistent with the Recommendations of the Forum on Fluoridation. In addition, the Expert Body advised Colgate that the use of paediatric toothpastes with low concentrations of fluoride for children between the ages of 2 and 7 cannot be recommended without further research. As part of the follow up procedure the Expert Body met with Colgate in July 2007. At this meeting the Expert Body received an assurance that Colgate would comply with the recommendations of the Forum on Fluoridation regarding paediatric toothpastes during Colgate Oral Health Month 2007 and beyond.

Review of Recommendation 3: Fluoride Toothpaste

The Adhoc Committee on the Oral Health Care Industry recently reviewed the five recommendations regarding fluoride toothpaste in the Report of the Forum on Fluoridation. Following an extensive review of developments since the report's publication in 2002, the Adhoc Committee proposed the adoption of a

revised wording for Recommendation 3.3 of the report as set out below. The following wording was adopted by the Expert Body in February 2008:

Recommendation 3.3 (Revised): “Parents should supervise children aged 2 to 7 years when brushing their teeth and should ensure that only a small, pea-sized amount of fluoride toothpaste is used, also parents should ensure that the toothpaste is spat out and swallowing the toothpaste is avoided”.

As this Recommendation adopts a position on use of fluoridated toothpaste that is somewhat more rigorous than that contained in Directive 2007/53 (see p. 17 above) on account of Ireland’s policy of fluoridating the public water supplies, accordingly the Expert Body is of the view that the Directive’s specification on toothpaste use for young children does not appear to properly cater for Ireland’s situation. In other words, the Directive’s current formulation may not adequately accommodate the peculiarities of the Irish situation. Accordingly, the Expert Body will advise the Minister as part of the Commission’s Stakeholder Dialogue Procedure in order to familiarise the Commission with the Irish situation, and this may ultimately necessitate the adaptation of the existing Directive.

The committee also recommended that, in line with Recommendation 3 in the Report of the Forum on Fluoridation.

“Guidelines for the use of oral health care products in childhood should be developed for use by all involved in advising members of the public on health care matters. The Expert Body will play a key role in the development of these guidelines.”

The Expert Body has taken the necessary steps to update the document Oral Health in Ireland (Department of Health and Children, 1999). This recommendation has been given effect by the Dental Health Foundation, a second edition is scheduled for publication in mid 2009.

Expert Body Website

The website of the Irish Expert Body on Fluorides and Health, www.fluoridesandhealth.ie, was established to provide up to date information on the work undertaken by the Body, including publications, position statements and minutes of meetings. Additionally, a Frequently Asked Questions (FAQ) section has been included on the site to address specific questions relating to fluorides.

Resources

The Expert Body has reviewed and advised on a number of published resources for distribution to specific target audiences. This has included approval of the Mighty Mouth Schools Programme for 5-to-6-year olds and Winning Smiles Schools Programme for 7-to-8-year olds produced by the Dental Health Foundation Ireland and two posters for 0 to 2 and 2 to 7 year olds for dentists’ and doctors’ surgeries promoting best practice in relation to dental and oral hygiene for the mouths and teeth of children.

These resources are available through a link to the Dental Health Foundation website which is itself a weblink on the websites of the Department of Health and Children, Health Service Executive and Oasis (government information services).

NEW AND EMERGING ISSUES

‘Review of Evidence’ Procedures

As part of its remit and in support of Recommendation 6, the Expert Body continues to monitor new and emerging issues on fluoride and its effects on health and related matters. The Expert Body, from the outset accepted the fundamental scientific tenet that any single piece of scientific evidence by itself remains hypothetical unless it can be repeated or confirmed by other scientists. Therefore, all such evidence must be 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 procedure reflects a global scientific standard, adopted across all scientific disciplines. The peer review process provides both a rigorous evaluation of the procedures used in research and the conclusions drawn, as well as ensuring reproducibility of results.

One of the main objectives of the Expert Body is to examine scientific evidence in relation to fluoridation and health. It does this from a neutral and independent position. In reviewing such evidence the Expert Body is of the view that any claims about the benefits or risks of water fluoridation must be substantiated by recognised scientific studies and not by anecdotal evidence or individual experiences. Any new evidence produced in support or against water fluoridation is regularly addressed by the appropriate sub-committee of the Expert Body.

Dental Fluorosis

While fluoride in tap water is effective in controlling tooth decay, fluoride intake above optimal concentrations can create a risk of dental fluorosis in teeth. Dental fluorosis is a cosmetic condition involving the occurrence of white spots and pitting or mottling of tooth enamel due to excessive intake of fluoride either through naturally occurring fluoride in the water, water fluoridation, toothpastes containing fluorides, or other sources of dietary fluorides.

The Forum on Fluoridation Report (2002) noted a small increase in the prevalence of dental fluorosis in Ireland and made a number of recommendations (Recommendation 1) to deal with this. The Expert Body has worked with the Department of Health and Children to lower the level of fluoride in drinking water to a range of 0.6 to 0.8 parts per million (ppm, ie, mg per L). In the case of fluorosis at 0.6ppm, the percentage affected by questionable or very mild fluorosis (which is usually only detectable by a dentist) would be 38 per cent compared with 51 per cent at 1.0ppm.”

In addition, the Expert Body recommends that fluoridated toothpaste should not be given to children under 2 years of age. For children aged 2 to 7 years adults should supervise their tooth brushing with fluoridated toothpaste so as to ensure only a small, pea-sized amount of fluoride toothpaste is used. Also such adults should ensure that the toothpaste is spat out and not swallowed.

This recommendation is to minimize dental fluorosis which can be caused by excess fluoride ingestion by children in these age groups. Obvious fluorosis is a cosmetic condition but not a health problem.

Infant Formula

In 2000, the Minister for Health and Children established the Forum on Fluoridation. The report produced by the Forum is a “comprehensive review, which aims to inform members of the public, legislators and health professionals about the benefits and risks of water fluoridation for human health”. During the course of the Forum’s plenary meetings, concerns were raised in relation to fluoride ingestion by infants consuming powdered formula. As a result, the Food Safety Authority of Ireland requested its Scientific Committee to conduct a risk assessment analysis. In its report to the Forum on Fluoridation, the Food Safety Authority highlighted the fact that there was a lack of information on feeding practices amongst infants in Ireland. This led to the development of a research

project by the Oral Health Services Research Centre (OHSRC) in collaboration with the Food Science, Food Technology and Nutrition Department in UCC. The main objective of the project was to investigate formula feeding practices in infants aged 8-16 weeks to provide a basis for estimating fluoride intake from tap water. Work began in 2003. The funding was provided by the Department of Health and Children and the Food Safety Authority of Ireland.

The sample group consisted of 80 infants consisting of both boys and girls, who were selected from the Child Health Registers of four public health nurses. The infants were all from the Cork area and the sample was stratified by medical card status. Information on feeding was obtained by means of a food diary.

The results of the study (published 2007) were similar to the results of the risk assessment undertaken by Anderson et al. for the Food Safety Authority of Ireland. Thus, this study helps to validate the results of the risk assessment. The Study informed the publication of a position statement as follows:

EXPERT BODY STATEMENT ON INFANT FORMULA

August 2008

Fluoridated tap water safe

The Independent, evidence-based body the Irish Expert Body on Fluorides and Health, states that currently there is no significant evidence of any adverse effects to the health of infants consuming infant formula made up with tap water which has been fluoridated at current statutory levels in Ireland.

The Expert Body emphasised it is not recommended that people switch from using tap water to bottled water to make up infant formula. Bottled water is not advised for use other than in exceptional circumstances such as where home water is unfit to drink. In such situations,

the advice of a public health nurse or paediatrician should be sought as to suitable bottled waters available at the time. Many bottled waters are unsuitable for reconstituting infant formula due to high concentrations of sodium and other ions which may be harmful to an infant over prolonged periods of usage.

This statement has been issued following some alarming inaccuracies and scientifically unfounded connections made by the group VOICE regarding the suitability of fluoridated tap water in Ireland to make up baby formula.

According to Dr Seamus O’Hickey, Chairman of the Expert Body on Fluorides and Health, “Statements which are being put in the public domain that are not founded on proper science could cause concern amongst consumers. There is no scientific evidence that water fluoridation causes any ill medical effects. There are no known significant side effects of water fluoridation other than dental fluorosis - which, where it occurs is a cosmetic effect of marks on the teeth, and this has been known for some 60 years. Surveys carried out throughout the 1980s, 1990s and the current decade indicate the overall prevalence of dental fluorosis in Ireland is low.”

“The Food Safety Authority of Ireland is of the opinion that there is no significant evidence of any adverse effects to the health of infants consuming infant formula made up with tap water which has been fluoridated at current statutory levels. Based on the FSAI’s risk assessment, the Expert Body accepts that the risk of dental fluorosis of the permanent dentition is insignificant in formula-fed infants aged 0-4 months residing in areas where fluoride levels do not exceed the statutory limit. The results of this risk assessment have recently been validated by the study “Fluoride Intake in Infants”, Whelton et al which concluded that “The results of the study were similar to the results of the risk assessment undertaken by Anderson et al” It further concluded that “The Fluoridation of Water Supplies Regulations were amended in early 2007 to redefine the optimal level of fluoride in tap water from 1ppm to a range of 0.6 – 0.8ppm with an optimal

target of 0.7ppm. This will decrease the fluoride intake of infants consuming formula reconstituted with fluoridated water”.

The effectiveness of water fluoridation continues to be endorsed by a comprehensive range of international bodies including the World Health Organization, the Centre for Disease Control and Prevention, the United States Public Health Service and the United States Surgeon General, the FDI World Dental Federation and the International Association for Dental Research.

The Expert Body’s view is that fluoridation continues to be a crucial and beneficial healthcare policy in Ireland and considers that fluoride concentrations in Irish tap water pose no known medical problems for infants or the population in general.



Clinical Practice Guidelines for the Public Dental Service

In June 2006, the Expert Body accepted an invitation from University College Cork to co-participate in a Health Research Board funded project to develop evidence-based clinical practice guidelines for the Public Dental Service. The development of evidence-based guidelines has the potential to reduce widespread variations in the delivery of core public dental services as indicated by research commissioned by the Department of Health and Children.

Three topics have been initially chosen for guideline development; these are:

- 1) School dental screening;
- 2) Identification of, and preventive services for ‘high caries risk’ children;
- 3) Use of topical fluorides for caries prevention

In line with the topical fluoride guidelines, the Expert Body’s nominated representative participated in the Guideline Development Group (GDG) to review best practice for the use of topical fluorides for caries prevention and develop specific guidelines on this area. These guidelines are now complete and were published in December 2008. The guidelines will be updated in 2010.

The Expert Body’s involvement in this project ties in with its Action Plan Recommendation to ‘review best practice international guidelines’, as the guideline development process follows international standards for quality clinical practice guidelines as specified by the AGREE Collaboration.

Priorities in Research on Fluorides and Health

The New and Emerging Issues sub-committee of the Irish Expert Body on Fluorides and Health, as part of its remit, has, since its establishment, continued to monitor and evaluate the evidence base in relation to

fluoride research. Key amongst its action is to identify research gaps and identify and recommend priority research areas. This document is the result of the Subcommittee's ongoing evaluation, and three priority key research areas were identified.

It recommended that:

- Ongoing caries research / monitoring, in order to inform the evaluation of the overall National Water Fluoridation Programme.
- A study on dental fluorosis be conducted contemporaneously prior to the imminent introduction of the reduction of fluoride levels in the drinking water supply to between 0.6 ppm and 0.8 ppm, with a target value of 0.7 ppm fluoride. This will enable the Expert Body to be in a position to ascertain whether this strategy of lowering the level of fluoride in drink water supplies is having the desired effect (ie: the reduction in the prevalence of dental fluorosis – Forum on Fluoridation, Recommendation 1, pg. 15)
- Those children who participated in the two studies in which fluoride intake patterns in infancy and childhood were measured (Harding et al in press, Ketley et al 2004) be followed in order to further elucidate the relationship between fluoride patterns in infancy and early childhood and fluorosis levels in permanent incisors which erupt between the ages of six and eight years.

Further recommendations were identified in the Expert Body submission to the Department of Health and Children in October 2008 as follows:

- To respond to the recommendation in the Programme for Government 2007 that a national study of total fluoride intake be undertaken.
- To continue to evaluate all New and Emerging Issues on fluorides and health.
- Continue and expand the collection of data on general health in fluoridated and non fluoridated communities in order to respond to Recommendation 6 of the Report of Forum on Water Fluoridation.

Adequate and timely funding continues to be a prerequisite to give effect to these research recommendations.

Further research priorities are set out in the Irish Expert Body on Fluorides and Health's submission to the National Oral Health Policy Group in 2008.

Claims of Potential Health Issues

A number of claims have been made in relation to water fluoridation and potential health issues which have been extensively assessed by the Expert Body:

Absence of an association between water fluoridation and thyroid disorders

In 2006, the Expert Body reviewed and agreed with the January 2006 statement by the British Fluoridation Society on the absence of an association between water fluoridation and thyroid disorders. This statement was also reviewed and endorsed by the British Thyroid Association.

The available medical and scientific evidence suggests an absence of an association between water fluoridation and thyroid disorders. Many major reviews of the relevant scientific literature around the world support this conclusion. Of particular importance are:

- An exhaustive review conducted in 1976 by an expert scientific committee of the Royal College of Physicians of England;
- A systematic review in 2000 by the NHS Centre for Reviews and Dissemination at the University of York; and,

- A 2002 review by an international group of experts for the International Programme on Chemical Safety (IPCS), under the joint sponsorship of the World Health Organization (WHO), the United Nations Environment Programme (UNEP), and the International Labour Organisation (ILO).

None of these authoritative and prestigious bodies cited above have found any credible evidence of an association between water fluoridation and any disorder of the thyroid.

Review of Evidence on Osteosarcoma and Fluoridation of Drinking Water

Independent committees of experts, comprehensive systematic reviews, and reviews of individual studies have assessed the effects of water fluoridation. According to generally accepted scientific knowledge, there is no association between cancer rates in humans and optimal levels of fluoride in drinking water. This includes the incidence of osteosarcoma, a rare type of bone cancer.

Specifically in an Irish context, a brief review was conducted into cancer rates in the Republic of Ireland (ROI) and Northern Ireland (NI). The results showed an averaged incidence of osteosarcoma in the ROI, which has had community water fluoridation since the 1960's, of 0.27/100,000. This was compared to a NI incidence of 0.21/100,000. NI's population does not receive fluoridated water.

These results are average incidences of osteosarcoma in both populations between 1994 and 2000. Over this seven year period, the incidence of osteosarcoma in NI was higher than in the Republic of Ireland in three out of the seven years.

Osteosarcoma is a particularly rare cancer: The total number of cases diagnosed on the island of Ireland (North and South) during the years 1994–2000 was less

than 14. Such small figures may be too small to show a true effect. The Expert Body has advised the Minister for Health and Children that there is no indication of increased risk of osteosarcoma associated with fluoridated drinking water.

Evidence on Effectiveness of Paediatric Toothpaste

The basis of recommendation 3.4 in the Report on the Forum on Fluoridation (2002) was that the evidence for the effectiveness of toothpastes containing low levels of fluoride (paediatric toothpastes with 500ppm fluoride) in controlling dental caries was equivocal. Current best evidence does not suggest yet that these toothpastes are sufficiently effective in preventing tooth decay to warrant recommending their use. In line with the specific actions proposed by the Expert Body's Action Plan 2005, ongoing monitoring of the evidence base continues to be carried out to assess and make recommendations on the value of paediatric toothpastes with low concentrations of fluoride.

Inputs into calls for Submissions:

Health Research Board Corporate Strategy 2007 – 2011

In 2006, the Expert Body provided feedback to draft consultation documents for the Health Research Board Corporate Strategy 2007–2011 and the Health Research Board Consensus Statement.

Of particular relevance to the work of the Expert Body were the structural issues below identified in the Consensus Statement:

- Agreement on responsibilities for research and information by the Department of Health and Children (DoH&C), the Health Service Executive (HSE), the Health Information and Quality Authority (HIQA) and the Health Research Board (HRB).

- An update of Making Knowledge Work for Health to take account of the reorganisation of the health service.
- The appointment of a Director of Research and Development in the DoH&C.
- The establishment of a forum to agree the priority research and information needs of the health service over the next three to five years.

The Expert Body notes that agreement on responsibilities for research and information between DoH&C, HSE and HIQA may help streamline funding applications for fluoride research projects that require to be undertaken in the Republic of Ireland.

In particular, the HRB draft strategy consultation document identified that it will commission research and information systems linked to national health priorities as a high level strategy, including the issuing of targeted calls to address national health priorities. This may be pertinent to the Expert Body's remit in relation to fluoride research.

Science Foundation Ireland (SFI)

In June 2006, the Expert Body made a submission to the Advisory Council for Science Technology and Innovation in response to its 2006 consultation paper a Review of Health Research in Ireland.

The Expert Body welcomed the establishment of a forum to explore and develop a coherent health research policy and strategy. One of the greatest challenges with the initiative may be that of receiving accurate and adequate input to the forum. In this regard, the Irish Expert Body on Fluorides and Health is well placed to interact with the proposed forum in terms of the fluorides and health research agenda, which serves to underpin Ireland's water fluoridation legislation.

National Nutrition Policy Document (Department of Health and Children)

In line with Recommendation 8 of the Action Plan 2005 the Expert Body contributed data on the main ethological factors associated with dental caries to the Department of Health and Children for inclusion in the first national nutritional policy document. This was an important input in that it firmly places Oral Health issues and advice within the total nutritional policy framework.

Draft European Communities Objectives (Surface Waters) Regulations 2008 (Department of Environment, Heritage & Local Government)

In 2000 the European Parliament and Council adopted Directive 2000/60/EC (the Water Framework Directive). The Directive establishes the legal framework for the protection, improvement and sustainable management of inland surface waters, transitional waters, coastal waters and groundwater.

The draft European Communities Objectives (Surface Waters) Regulations 2008 that were proposed will give legal status to the criteria and standards to be used for classifying surface waters in accordance with the ecological objectives approach of the Water Framework Directive.

In October 2008, the Expert Body made a submission to the consultation document. The Body reaffirmed its support to these draft Regulations which will drive improvements in quality, safety and accountability in water quality to all service users.

International Status of Water Fluoridation

The Expert Body continues to review policies in countries using water fluoridation as a public health strategy. It has assessed policies in some countries that do not use water fluoridation and investigated the

various alternative options being used in its place. Notwithstanding, the Expert Body's view remains that water fluoridation continues to be a valid and important public health policy that benefits all sectors of Irish society.

Countries using adjusted fluoridation schemes include the UK, Chile, South Korea, Singapore, Spain, Ireland, the United States, Canada, Brazil, Malaysia, Vietnam, Australia, and New Zealand. Other countries, such as South Africa and Japan, have enacted the necessary legislation and plan to introduce schemes in the imminent future. Contrary to water fluoridation opponents claims, it has not been banned anywhere.

Approximately 300 million people worldwide receive fluoridated water. 170 million people in the USA are served by public water systems that are fluoridated. In Western Europe, approximately 12 million people benefit from an artificially fluoridated water supply (UK 6 million; Ireland 2.3 million; Spain 4 million). In Ireland, fluoridation of all public water supplies is mandatory.

At the 66th World Health Assembly in May 2007, the World Health Organisation (WHO) renewed its call for Governments throughout the world to consider using water fluoridation as an efficient public health measure. Member states were also urged to adopt the measures laid out in the "Oral health: action plan for promotion and integrated disease prevention" which was presented at the Assembly (Appendix D).

Included in these measures, was a call for "those countries without access to optimal levels of fluoride, and which have not yet established systematic fluoridation programmes, to consider the development and implementation of fluoridation programmes, giving priority to equitable strategies such as the automatic administration of fluoride, for example, in drinking-water, salt or milk, and to the provision of affordable fluoride toothpaste."

SECRETARIAT SERVICES

The Dental Health Foundation accepted an invitation by the Minister for Health and Children in 2004 to participate as Secretariat to the Irish Expert Body on Fluorides and Health. Subsequently, substantial management and secretarial support is provided by the Dental Health Foundation on an on-going basis. The Secretariat's responsibilities fall into seven main categories:

The Secretariat provides assistance to the Expert Body in collating and organising material to enable the Expert Body to determine and constantly update the highest quality assurance standards throughout the fluoridation process. It enables the Expert Body to publish these standards and receive and evaluate regular reports from independent auditors that these standards are being maintained.

The Secretariat assists the Expert Body in promoting, coordinating and organising communication tools in conjunction with health authorities, education, information and public participation. It also works with the Body to communicate to the public the benefits of fluoridation, the processes and safeguards in place, risks and best practice, particularly in relation to young children.

The Secretariat provides assistance in collating and reviewing research material in the areas identified by the Forum (e.g. legislation and regulation, international best practice, use of fluoride toothpaste and longitudinal research surveys). In addition, it oversees the organisation and management of special research studies which will be undertaken by other bodies.

The Secretariat organises and supports meetings of the Expert Body and sub-committees, dealing with day-to-day communications with the industry, the public and professionals, managing and administering third party services. It also ensures appropriate financial and administrative records are maintained. In addition to the work involved in directly supporting and overseeing the implementation of the Expert

Body's Action Plan, the Secretariat is continuously engaged in activities related to responding to requests for information and technical advice from the Minister and officials of the Department of Health and Children, persons in professional practice, public bodies, public representatives, and Oireachtas Committees.

Additionally, the Secretariat designed, developed and manages the Expert Body website, which hosts information relating to the ongoing working of the Body.

The Secretariat also attends and participates in relevant conferences, liaising with relevant authorities and bodies within the island of Ireland and overseas on behalf of the Expert Body as appropriate.

GOVERNANCE

Code of Practice for the Governance of State Bodies

The Expert Body adopts the appropriate components of the 'Code of Practice for the Governance of State Bodies' published by the Department of Finance, 2001. The following are some of the elements of the Code to be addressed;

- Written Codes of Business Conduct for Board Members (Expert Body) and Employees. The Chairperson shall be in a position to confirm to the Minister that Codes of Business Conduct for Expert Body members and Secretariat Staff have been put in place and complied with by the Expert Body.
- Internal Audit and Procurement
- Disposal of Assets and Access to Assets by Third Parties
- Reporting arrangements
- Reporting additional to annual reports and accounts
- Confidentiality
- Conflict of Interest

The Expert Body is also subject to the Freedom of Information Act (1997) and (Amendment) Act (2003). The Expert Body meets at least three times a year. A quorum of nine members is needed for decisions to be ratified. A number of sub-committees have been established in line with the prioritised work programme:

The Dental Health Foundation, Corrigan House, Fenian Street, Dublin 2, acts as the Secretariat to the Irish Expert Body on Fluorides and Health.

The Secretariat keeps a formal minute book with a record of the proceedings of all the meetings of the Expert Body. Sub-committees also keep minute books, which are used as supplementary documentation, ensuring accurate recording of decision making at that level. Minute taking adopts the same strict set of procedures and practices as laid out in the Expert Body Records Management Manual.

Upon adoption by the Expert Body, the Chairperson signs the minutes and initials each page on the top right hand corner.

The annual schedule of meetings is agreed prior to or at the final meeting of the preceding year. The Secretariat arranges Expert Body meetings, in consultation with the Expert Body through the Chairperson.

The Minister for Health and Children appoints the Chairperson, and the Chairperson reports directly to the Minister in accordance with the Expert Body's terms of reference. The Chairperson has the casting vote in the event of a tied vote during a meeting. Except for these casting votes the Chairperson shall not vote on decisions. The Expert Body shall however, at all times seek a consensus, as a preferential system of decision making, before engaging in voting procedure. Sub-committees may co-opt members with relevant expertise for a specific purpose and agreed timeframe. These members do not have voting rights.

The proceedings of the Expert Body Plenary Meetings are posted to the Expert Body website, www.fluoridesandhealth.ie, on an ongoing basis.

Plan, Budget and Funding

In 2004 the inaugural year of the Expert Body it developed and submitted a three-year business plan and budget to the Department of Health and Children. The budget set out under appropriate headings the total proposed expenditure by the Expert Body per annum. The Plan is updated and submitted annually to the Department of Health and Children for approval.

An annual audited set of accounts is submitted to the Department of Health and Children in line with the Comptroller and Auditor General (Amendment) Act 1993.

Confidentiality

All papers, including minutes, relating to the Expert Body's business, are confidential to the members of the Expert Body and the Secretariat. Unless authorised by the Expert Body, members decline to make statements to third parties, including the media, on matters under discussion by or pertaining to the business of the Expert Body. Reports adopted by the Expert Body are published once they have been considered by the Department of Health and Children. Articles in recognised scientific journals, arising from work commissioned or sponsored by the Expert Body may be published with the prior agreement of the Expert Body provided always that the support of the Body is acknowledged and that it is made clear that any views expressed are not necessarily those of the Expert Body. Ownership and copyright of research material commissioned by the Expert Body, will be dealt with at individual contract level.

Conflict of Interest

A conflict of interest may arise in any situation where the personal or other interests of a member of the Expert Body or one of its Sub-committees might in any way affect his/her deliberations or decisions as a member of that Expert Body or Sub-committee. Members should therefore absent themselves when the Expert Body is

deliberating or deciding on matters in which they (other than in their capacity as a member of the Expert Body) or person(s) connected with them have an interest. In particular a member of the Expert Body or Sub-committee who believes themselves likely to be part of a consortium submitting a tender for work commissioned by the Expert Body should inform the chairperson and absent themselves from any discussion on a proposed project or tender for which a tender is likely to be made. If a member has taken part in any discussions about the commissioning of work by any Sub-committee or by the Expert Body, then that member must not become involved in any way whatsoever in any subsequent tender bid for that work.

Expenses of Expert Body members

Where appropriate, travel and subsistence expenses are paid to members of the Expert Body and the Secretariat staff in accordance with revenue approved provisions.

Publicity

The Chairperson of the Expert Body and/or any other member, as designated by the Committee, will act as spokespersons for the Expert Body in respect of its specific functions and work programme.

Freedom of Information (FOI)

Following an FOI Request received by the Department of Health and Children in 2005 a full audit of the Expert Body filing system was undertaken to establish the size and nature of the search and retrieval required to meet this request. This audit included all administration files and supporting documentation, a comprehensive listing of all files including a listing of file contents and file sizes was collated. This audit was conducted in line with the Freedom of Information Acts 1997 and (Amendment) Act 2003.

APPENDIX A

Extract from the Irish Expert Body on Fluorides and Health Action Plan 2005

Policy Aspects of Water Fluoridation

- *The fluoridation of piped public water supplies should continue as a public health measure, subject to the other recommendations contained in this report.*
- *In the light of the best available scientific evidence, the Fluoridation of Water Supplies Regulations, 1965 should be amended to redefine the optimal level of fluoride in drinking water from the present level (0.8 to 1.0 ppm) to between 0.6 and 0.8 ppm, with a target value of 0.7 ppm.*
- *The amended Regulations should reflect advances in the technology of fluoride monitoring and testing and also the most recent international specifications for the quality of the products used in the fluoridation process.*
- *An Expert Body should be established to implement the recommendations of the Forum and to advise the Minister for Health and Children on an ongoing basis on all aspects of fluoride and its delivery methods as an established health technology.*

Against a background of exposure to multiple sources of fluoride and changes in the rates of dental decay and dental fluorosis on both a population and individual level, it is considered appropriate to redefine the optimal level of fluoride in the Irish drinking water, taking account of these altered circumstances.

In the light of both international and Irish research which shows that there is an increasing occurrence of dental fluorosis, the Forum recommends the lowering of the fluoride level in drinking water to a range of 0.6 to 0.8 ppm, with a target of 0.7 ppm.

In the opinion of the Forum this level of fluoride would be sufficient, along with the continued use of fluoride toothpaste, to maintain meaningful reductions in dental decay rates while reducing the occurrence of dental fluorosis.

The validity of this recommendation should be further assessed when the results of the National Survey of Children's Dental Health and the Food Safety Authority of Ireland's study of infant feeding are available.

The Expert Body should have multidisciplinary representation, including dentistry, public health medicine, toxicology, engineering, management, environment and the public, and should draw upon national and international expertise, including that of the oral health care industry. It is envisaged that this Expert Body may be subsumed into the Health Information and Quality Authority proposed in Quality and Fairness: A Health System for You

Technical Aspects of Water Fluoridation

- *Guidelines/codes of practice and audit processes should be developed to support ongoing quality assurance of all aspects of the water fluoridation process and should take account of results of both Irish and international research.*
- *External audit procedures of existing fluoridation plants should be put in place to monitor the performance of existing plants and should be part of the specification of new plants. Audit results should be included in annual reports on water fluoridation produced by relevant fluoride monitoring committees.*
- *The standards and quality of each fluoridation plant should be assessed and decisions made as to the appropriateness of the continued use of inefficient plants.*

- *Fluoride monitoring and analytical and reporting procedures should be updated to reflect modern technologies and to facilitate timely reporting of all drinking water fluoride levels. These results should be made available in an appropriate format so that compliance with regulations can be monitored. The results should be freely available for public scrutiny.*
- *Raw water should be checked for fluoride levels before fluoridation takes place, in compliance with the current Regulations.*
- *The Eastern Regional Health Authority, currently responsible for purchasing the fluoridating products on behalf of the country's health boards, should ensure compliance with the amended regulations specifying the quality standards of the products used in the fluoridation process.*
- *Parents should supervise children aged 2 to 7 years when brushing their teeth and should ensure that only a small, pea-sized amount of fluoride toothpaste is used and that swallowing of the paste is avoided)*
- *Paediatric toothpastes with low concentrations of fluoride require further research before the Forum can recommend their use.*
- *Guidelines for the use of oral health care products in childhood should be developed for use by all involved in advising members of the public on health care matters. The Expert Body will play a key role in the development of these guidelines.*

The Expert Body or its equivalent function in the Health Information and Quality Authority, in collaboration with the Health Boards Executive (HeBE), may have a key role in the implementation of the above recommendations.

Fluoride Toothpaste

- *The Forum recommends the continued use of fluoride toothpaste in fluoridated and non-fluoridated areas because of the additive benefit from the combination of fluoridated water and fluoride toothpaste.*
- *Parents should be advised not to use toothpaste when brushing their children's teeth until the age of 2 years. Prior to this age parents can brush their children's teeth with a toothbrush and tap water. Professional advice on the use of fluoride toothpaste should be sought where a child below 2 years of age is considered to be at high risk of developing dental decay.*
- *Labelling of fluoride products in a manner which is better understood by the general population and especially by those with low levels of literacy or visual impairment.*
- *The use of clear and understandable instructions on all fluoride product labels, in particular symbols/pictures to describe the appropriate amount of toothpaste to be used by children.*
- *The provision of child resistant containers for mouth rinses and fluoride supplements to prevent inappropriate ingestion of these products by children.*

Oral Health Care Industry

The Forum acknowledges the contribution of the oral health care industry in improving the oral health of the population. The Forum suggests that the industry should take a number of steps to reduce the risk of inappropriate use of fluoridated products by consumers, including the following:

Infant Formula

- Infant formula should continue to be reconstituted with boiled tap water in accordance with manufacturers' instructions. Alternatively, ready-to-feed formula can be used.
- The use of bottled water to reconstitute infant formula is not recommended unless the labelling indicates its suitability for such use.

These recommendations take account of Recommendation 3 regarding the appropriate use of fluoride toothpaste for young children and Recommendation 1 regarding the reduction in the level of fluoride in drinking water.

Fluoride Research

- All future research undertaken should be consistent with the research philosophy as outlined in the Health Research Strategy.
- The Expert Body should prioritise designated research in areas relevant to fluoride, and appropriate funding should be made available.
- Ongoing research related to fluoride should continue to be evaluated by the proposed Sub-Committee and expanded to deal with new emerging issues.
- Research related to fluoride should include the collection of relevant data on general health.
- In view of the acknowledged importance on a worldwide basis of research in the area of fluoride and oral health, the health board research programmes currently in place should continue and be further developed to augment the world body of information on fluoride for the benefit of all.
- The current 10-year cycle of adult and child dental health surveys should continue. In addition a rolling

programme of oral health surveys every second year for a selected age group of children should be implemented.

In addition to research on fluoride, eating practices and other oral health related behaviours, the new programme of research should include any areas of research related to general health considered appropriate by the proposed Expert Body. This research should complement that already available from other well-established population health surveillance systems.

Education, Information and Public Participation

The Forum's report is a comprehensive review of water fluoridation aimed at informing the public, legislators and health professionals about the benefits and risks of water fluoridation for human health.

As a response to calls for greater democratic, transparent and participatory policy processes, and in line with Quality and Fairness: A Health System for You which highlights the need to support improvements in the availability and quality of health information, it is essential to provide the general public and special interest groups with factual information on all aspects of water fluoridation including a full account of the work of the Forum.

This will require the development of a communication strategy to ensure that an informed debate takes place at all levels, i.e. the political arena, the media and on a community basis.

A multi-tiered approach will provide accessible and appropriate information for the public as a whole and for specific special interest groups. A number of approaches are set out below:

- Media analysis and discussion in both the national and regional press to ensure widespread dissemination of the findings of the Forum.

- Further information from the report itself and from the Forum's website.
- National and local radio and television coverage to add to this information flow.
- Short video presentation of the main issues, accompanied by explanatory leaflets, made available to schools and local libraries, for example.
- Regional public meetings with a panel of multi-disciplinary experts available to present information and to respond to questions and concerns expressed by the general public or by any special interest group. Such meetings could be convened at the request of local interest groups, for example local authorities, community groups or consumer organisations.
- Following completion of this exercise it is recommended that surveys or other methods be undertaken to measure the public response to the findings and recommendations of the Forum to help inform policy makers and legislators about public attitudes to water fluoridation.

The aim of these initiatives will be firstly to increase public awareness of water fluoridation and its context and secondly to elicit public attitudes and values. The Expert Body in consultation with the Dental Health Foundation Ireland, and other appropriate bodies will determine the means whereby these public participation initiatives will be organised.

Public Health and Professional Practice

- Oral health as an integral part of general health should be included in the overall provision of health care and in the design of health promotion programmes and initiatives.

Issues which have arisen in the debate on fluoride may have caused some public and professional concern with

regard to the benefits and risks of water fluoridation. From a public health point of view all involved in the public health profession should become familiar with the findings of this Forum and be able to give balanced and scientific information to the public.

As adults and the elderly benefit from water fluoridation, the role of fluoride in preventing dental decay in this population group needs to be promoted. Health care professionals should therefore deliver advice on oral health along with advice on general health care matters. The maintenance of good oral health will have a major impact on the overall quality of life of the elderly.

APPENDIX B

Correspondence re Code of Practice on Fluoridation of Drinking Water 2007

Department of Health and Children An Roinn Sláinte agus Leanaí
Hawkins House, Dublin 2
Teach Haicin, Báile Átha Cliath 2
TEL. (01) 6352000

10 August, 2007.

Circular 6/2007: Code of Practice on Fluoridation of Drinking Water 2007

To All County and City Managers, Director of Services (Water).

Dear Sir/Madam,

I am directed by the Minister for Health and Children to state that a Code of Practice has been produced in pursuance of Fluoridation of Water Supplies Regulations 2007 (Statutory Instrument No. 42 of 2007) made under the Health (Fluoridation of Water Supplies) Act, 1960.

The purpose of the Code is to ensure the proper implementation, by all personnel involved, of the procedures for the fluoridation of the public water supplies to the prescribed standards and to minimize the risk of injury or damage to plant, personnel and environment. The Code does not modify or set aside in any way, the obligations/requirements of the operator of the water treatment plant under other legislation, such as Health & Safety. The Code applies to all water treatment plants where the fluoridation of water supplies is, or will be, carried out.

Fluoridation of the public water supplies is a public health measure in the field of preventive dentistry. The Forum on Fluoridation was established by the Minister to review the fluoridation of public piped water supplies in Ireland. The main conclusion of the Forum Report (Forum on Fluoridation Ireland 2002) was that the fluoridation of public piped water supplies should continue as a public health measure.

On foot of a recommendation from the Forum on Fluoridation for the establishment of an Expert Body, the Irish Expert Body on Fluorides and Health (known as the Expert Body) was established in 2004. The Expert Body has broad representation, including from the areas of dentistry, public health medicine, engineering, management, environment and the public. It also has consumer input in terms of members of the public and representatives of consumer interests, in addition to the necessary scientific, managerial and public health inputs. Its terms of reference include overseeing the implementation of the recommendations of the Forum on Fluoridation and advising the Minister on all aspects of fluoride and its delivery methods.

The development of a code of practice was part of the Forum's recommendations. The Code of Practice has been prepared by, and approved by, the Expert Body. It is the first time that a national code of practice for the fluoridation of public water supplies has been formulated. Therefore, as part of a formal consultation process, the Expert Body sought comments from a broad spectrum of stakeholders, and the results informed the development of the code of practice.

The Health Service Executive (HSE) has responsibility for coordinating all matters relating to the implementation of the fluoridation of water supplies within the State, with the Environmental Health Section of the Population Health Directorate taking the lead role in this regard. Any queries in relation to the Code of Practice should be addressed to the HSE. The HSE is establishing a National Steering Group to support and advise the work of local committees in relation to the fluoridation of the water supplies.

This Circular supersedes this Department's Circular No. 14/1977 of 1st July 1977.

This Circular, and the Code of Practice, is also available on the Department's website at http://www.dohc.ie/issues/fluoridation_2007

Yours sincerely,

Chris Fitzgerald
Principal Officer

APPENDIX C

S.I. No. 42 of 2007

- Fluoridation of Water Supplies Regulations 2007

Statutory Instrument

S.I. No. 42 of 2007

FLUORIDATION OF WATER SUPPLIES REGULATIONS 2007

PUBLISHED BY THE STATIONERY OFFICE DUBLIN.

To be purchased directly from the

GOVERNMENT PUBLICATIONS SALE OFFICE, SUN ALLIANCE HOUSE, MOLESWORTH STREET, DUBLIN 2.

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(Prn. A7/0108) Price: €1.27

S.I. No. 42 of 2007

Fluoridation of Water Supplies Regulations 2007

I, Mary Harney, Minister for Health and Children, in exercise of the powers conferred on me by section 2(3)(a) and section 4(1)(a) of the Health (Fluoridation of Water Supplies) Act 1960 (No. 46 of 1960), as adapted by the Health Order 1997 (S.I. No. 308 of 1997) and having complied with section 2(4) of the Health (Fluoridation of Water Supplies) Act 1960 and after consultation with the Minister for the Environment, Heritage and Local Government (as adapted by the Environment and Local Government Order 2003 (S.I. No. 233 of 2003)), hereby make the following regulations:-

PART 1 – PRELIMINARY

1. These Regulations may be cited as the Fluoridation of Water Supplies Regulations 2007.
2. These Regulations shall apply to all water supplied to the public by a sanitary authority through pipes, hereinafter referred to as “public water supplies”.
3. In these Regulations:
 - “Minister” means the Minister for Health and Children;
 - “sanitary authority” means a county or city council as defined in section 2 of the Local Government Act 2001 (No. 37 of 2001);
 - “health authority” means the Health Service Executive established under section 6 of the Health Act 2004 (No. 42 of 2004).
4. These Regulations shall have effect on and from 1st July 2007.

PART 2 –GENERAL PROVISIONS

5. A sanitary authority shall perform the following acts in relation to the fluoridation of public water supplies:
- (a) the provision, installation and maintenance of equipment for fluoridation,
 - (b) the making of arrangements for the addition of fluoride to the water, and
 - (c) the testing of the fluoride content of the water to which fluoride has been added.
6. The amount of fluoride which may be added to public water supplies shall be such that the water, after the addition of the fluoride, shall contain not more than 0.8 milligrams of fluoride per litre (mg/l) of water, and not less than 0.6 milligrams of fluoride per litre (mg/l) of water.
7. Fluoride may be added to public water supplies either in the form of hydrofluosilicic acid complying with the specification for that substance in Schedule 1 to these Regulations, or in such other form as may be approved by the Minister.
8. Equipment used for the fluoridation of public water supplies shall be such as may be specified or approved by the sanitary authority in consultation with the health authority.
9. The fluoride content of public water supplies, to which fluoride has been added shall be determined daily at the water treatment plant. In addition, the fluoride content of public water supplies shall be determined by a method complying with the performance characteristics specified for fluoride in section 2 of part 3 of the Schedule to the European Communities (Drinking Water) Regulations 2000 (S.I. No. 439 of 2000) or any enactment amending or replacing those Regulations, at intervals not exceeding 2 weeks during the period of 6 months after the date on which fluoride shall have been first so added and thereafter at intervals not exceeding one calendar month.
10. A sanitary authority shall arrange for:-
- (a) the provision, installation and maintenance of equipment for fluoridation,
 - (b) the making of arrangements for the addition of fluoride to the water, and
 - (c) the testing of the fluoride content of the water to which fluoride has been added,
- as agent for the health authority.

PART 3 - REVOCATIONS

11. (1) The Regulations listed in Schedule 2 to these Regulations are revoked.
- (2) References in any other instrument to the Regulations revoked under paragraph (1) shall be construed as references to these Regulations as appropriate.

Schedule 1

Specification for Hydrofluosilicic acid of 10.9 per cent strength. The acid as supplied shall contain 10.9 per cent by weight of fluosilicic acid (H_2SiF_6), subject to a tolerance of 0.3 per cent above or below that strength, and shall contain not more than the limits for “heavy metals” as specified in the appropriate European Standard (IS.EN 12175:2001) and no other soluble mineral or organic substance in quantities capable of a deleterious or injurious effect upon health.

Schedule 2

Fluoridation of Water Supplies (Dublin) Regulations 1962 (S.I. No.75 of 1962)
 Fluoridation of Water Supplies (Kildare) Regulations 1962 (S.I. No. 76 of 1962)
 Fluoridation of Water Supplies (Wicklow) Regulations 1962 (S.I. No. 77 of 1962)
 Fluoridation of Water Supplies (Cork) Regulations 1963 (S.I. No. 29 of 1963)
 Fluoridation of Water Supplies (Limerick) Regulations 1963 (S.I. No. 30 of 1963)
 Fluoridation of Water Supplies (Waterford) Regulations 1963 (S.I. No. 31 of 1963)
 Fluoridation of Water Supplies (Kildare) (Amendment) Regulations 1964 (S.I. No. 273 of 1964)
 Fluoridation of Water Supplies (Laoighis) Regulations 1964 (S.I. No. 274 of 1964)
 Fluoridation of Water Supplies (Louth) Regulations 1964 (S.I. No. 275 of 1964)
 Fluoridation of Water Supplies (Offaly) Regulations 1964 (S.I. No. 276 of 1964)
 Fluoridation of Water Supplies (Tipperary South Riding) Regulations 1964 (S.I. No. 277 of 1964)
 Fluoridation of Water Supplies (Westmeath) Regulations 1964 (S.I. No. 278 of 1964)
 Fluoridation of Water Supplies (Cork) Regulations 1965 (S.I. No. 130 of 1965)
 Fluoridation of Water Supplies (Donegal) Regulations 1965 (S.I. No. 69 of 1965)
 Fluoridation of Water Supplies (Mayo) Regulations 1965 (S.I. No. 70 of 1965)
 Fluoridation of Water Supplies (Meath) Regulations 1965 (S.I. No. 71 of 1965)
 Fluoridation of Water Supplies (Sligo) Regulations 1965 (S.I. No. 72 of 1965)
 Fluoridation of Water Supplies (Carlow) Regulations 1965 (S.I. No. 88 of 1965)
 Fluoridation of Water Supplies (Cavan) Regulations 1965 (S.I. No. 89 of 1965)
 Fluoridation of Water Supplies (Clare) Regulations 1965 (S.I. No. 90 of 1965)
 Fluoridation of Water Supplies (Galway) Regulations 1965 (S.I. No. 91 of 1965)
 Fluoridation of Water Supplies (Kerry) Regulations 1965 (S.I. No. 92 of 1965)
 Fluoridation of Water Supplies (Kilkenny) Regulations 1965 (S.I. No. 93 of 1965)
 Fluoridation of Water Supplies (Leitrim) Regulations 1965 (S.I. No. 94 of 1965)
 Fluoridation of Water Supplies (Limerick) Regulations 1965 (S.I. No. 95 of 1965)
 Fluoridation of Water Supplies (Longford) Regulations 1965 (S.I. No. 96 of 1965)
 Fluoridation of Water Supplies (Monaghan) Regulations 1965 (S.I. No. 97 of 1965)
 Fluoridation of Water Supplies (Roscommon) Regulations 1965 (S.I. No. 98 of 1965)
 Fluoridation of Water Supplies (Tipperary North Riding) Regulations 1965 (S.I. No. 99 of 1965)
 Fluoridation of Water Supplies (Waterford) Regulations 1965 (S.I. No. 100 of 1965)
 Fluoridation of Water Supplies (Wexford) Regulations 1965 (S.I. No. 101 of 1965)
 Fluoridation of Water Supplies (Wicklow) (Amendment) Regulations 1965 (S.I. No. 102 of 1965)
 Fluoridation of Water Supplies (Dublin) (Amendment) Regulations 1966 (S.I. No.268 of 1966)
 Fluoridation of Water Supplies (Kilkenny) (Amendment) Regulations 1966 (S.I. No. 269 of 1966)
 Health (Fluoridation of Water Supplies) Regulations 1971 (S.I. No. 119 of 1971)

Fluoridation of Water Supplies (Wicklow) (Amendment) Regulations 1974 (S.I. No. 287 of 1974)
Fluoridation of Water Supplies (Roscommon) (Amendment) Regulations 1974 (S.I. No. 338 of 1974)
Fluoridation of Water Supplies (Leitrim) (Amendment) Regulations 1974 (S.I. No. 339 of 1974)
Fluoridation of Water Supplies (Sligo) (Amendment) Regulations 1975 (S.I. No. 226 of 1975)
Fluoridation of Water Supplies (Cork) (Amendment) Regulations 1979 (S.I. No. 129 of 1979)
Fluoridation of Water Supplies (Tipperary South Riding) (Amendment) Regulations 1984 (S.I. No. 371 of 1984)
Fluoridation of Water Supplies (Limerick) (Amendment) Regulations 1985 (S.I. No. 242 of 1985)
Fluoridation of Water Supplies (Amendment) Regulations 1986 (S.I. No. 24 of 1986)
Fluoridation of Water Supplies (Amendment) Regulations 1987 (S.I. No. 69 of 1987)

GIVEN under my Official Seal this

2 day of February 2007

Mary Harney

Minister for Health and Children

L.S.

Explanatory Note

These Regulations provide for the fluoridation of public water supplies by sanitary authorities on behalf of the Health Service Executive.

These Regulations may be cited as the Fluoridation of Water Supplies Regulations 2007.

APPENDIX D

Sixtieth World Health Assembly (Agenda Item 12.9)

SIXTIETH WORLD HEALTH ASSEMBLY

WHA60.17 Agenda item 12.9

23 May 2007

Oral health: action plan for promotion and integrated disease prevention

The Sixtieth World Health Assembly,

Recalling resolutions WHA22.30, WHA28.64 and WHA31.50 on fluoridation and dental health, WHA36.14 on oral health in the strategy for health for all, WHA42.39 on oral health; WHA56.1 and WHA59.17 on the WHO Framework Convention on Tobacco Control; WHA58.22 on cancer prevention and control; WHA57.14 on scaling up treatment and care within a coordinated and comprehensive response to HIV/AIDS; WHA57.16 on health promotion and healthy lifestyles; WHA57.17 on the Global Strategy on Diet, Physical Activity and Health; WHA58.16 on strengthening active and healthy ageing; WHA51.18 and WHA53.17 on prevention and control of noncommunicable diseases, and WHA58.26 on public-health problems caused by harmful use of alcohol;

Acknowledging the intrinsic link between oral health, general health and quality of life;

Emphasizing the need to incorporate programmes for promotion of oral health and prevention of oral diseases into programmes for the integrated prevention and treatment of chronic diseases;

Aware that the importance of the prevention and control of noncommunicable diseases has been highlighted in the Eleventh General Programme of Work 2006–2015;

Appreciating the role that WHO collaborating centres, partners and nongovernmental organizations play in improving oral health globally,

1. URGES Member States:

- (1) to adopt measures to ensure that oral health is incorporated as appropriate into policies for the integrated prevention and treatment of chronic noncommunicable and communicable diseases, and into maternal and child health policies;
- (2) to take measures to ensure that evidence-based approaches are used to incorporate oral health into national policies as appropriate for integrated prevention and control of noncommunicable diseases;

- (3) to consider mechanisms to provide coverage of the population with essential oral-health care, to incorporate oral health in the framework of enhanced primary health care for chronic noncommunicable diseases, and to promote the availability of oral-health services that should be directed towards disease prevention and health promotion for poor and disadvantaged populations, in collaboration with integrated programmes for the prevention of chronic noncommunicable diseases;
- (4) for those countries without access to optimal levels of fluoride, and which have not yet established systematic fluoridation programmes, to consider the development and implementation of fluoridation programmes, giving priority to equitable strategies such as the automatic administration of fluoride, for example, in drinking-water, salt or milk, and to the provision of affordable fluoride toothpaste;
- (5) to take steps to ensure that prevention of oral cancer is an integral part of national cancer control programmes, and to involve oral-health professionals or primary health care personnel with relevant training in oral health in detection, early diagnosis and treatment;
- (6) to take steps to ensure the prevention of oral disease associated with HIV/AIDS, and the promotion of oral health and quality of life for people living with HIV, involving oral-health professionals or staff who are specially trained in primary health care, and applying primary oral-health care where possible;
- (7) to develop and implement the promotion of oral health and prevention of oral disease for preschool and school children as part of activities in health-promoting schools;
- (8) to scale up capacity to produce oral-health personnel, including dental hygienists, nurses and auxiliaries, providing for equitable distribution of these auxiliaries to the primary-care level, and ensuring proper service back-up by dentists through appropriate referral systems;
- (9) to develop and implement, in countries affected by noma, national programmes to control the disease within national programmes for the integrated management of childhood illness, maternal care and reduction of malnutrition and poverty, in line with internationally agreed health-related development goals, including those contained in the Millennium Declaration;
- (10) to incorporate an oral-health information system into health surveillance plans so that oral-health objectives are in keeping with international standards, and to evaluate progress in promoting oral health;
- (11) to strengthen oral-health research and use evidence-based oral-health promotion and disease prevention in order to consolidate and adapt oral-health programmes, and to encourage the intercountry exchange of reliable knowledge and experience of community oral-health programmes;

- (12) to address human resources and workforce planning for oral health as part of every national plan for health;
- (13) to increase, as appropriate, the budgetary provisions dedicated to the prevention and control of oral and craniofacial diseases and conditions;
- (14) to strengthen partnerships and shared responsibility among stakeholders in order to maximize resources in support of national oral health programmes;

2. REQUESTS the Director-General:

- (1) to raise awareness of the global challenges to improving oral health, and the specific and unique needs of low- and middle-income countries and of poor and disadvantaged population groups;
- (2) to ensure that the Organization, at global and regional levels, provides advice and technical support, on request, to Member States for the development and implementation of oral-health programmes within integrated approaches to monitoring, prevention and management of chronic non-communicable diseases;
- (3) continually to promote international cooperation and interaction with and among all actors concerned with implementation of the oral-health action plan, including WHO collaborating centres for oral health and nongovernmental organizations;
- (4) to communicate to UNICEF and other organizations of the United Nations system that undertake health-related activities, the importance of integrating oral health into their programmes;
- (5) to strengthen WHO's technical leadership in oral health, including increasing, as appropriate, budgetary and human resources at all levels.

