

<b>COMPLAINT NUMBER</b>	17/210
<b>APPEAL</b>	17/017
<b>COMPLAINANT</b>	Dr. K. Fuge and Dr. S Palmer
<b>APPELLANT</b>	Fluoride Free NZ
<b>ADVERTISER</b>	Fluoride Free NZ
<b>ADVERTISEMENT</b>	Fluoride Free NZ, Out of Home
<b>DATE OF MEETING</b>	12 September 2017
<b>OUTCOME</b>	Upheld, in part

## SUMMARY

The Complaints Board ruled on 12 September 2017 the complaint made by Dr. K. Fuge and Dr. S Palmer about a Fluoride Free billboard that showed a close up image of teeth and read: “Fluoride poisoning staring you in the face. 41% of NZ children have some form of dental fluorosis according to MoH Oral Health Survey. [www.fluoridefree.org.nz](http://www.fluoridefree.org.nz)” was Upheld, in part.

The Advertiser appealed the Decision to the Chairperson of the Appeal Board who accepted the appeal application and referred it to the Appeal Board.

The Appeal Board considered all the matters afresh and agreed the identity of the Advertiser and their position were clear and accepted the image in the billboard was an illustration of damage to teeth. The Appeal Board said the factual statement “41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey” based on the Ministry of Health Oral Health Survey results was supported by the information provided by the Advertiser and was unlikely to mislead consumers. The Appeal Board said the Complainant had taken an unduly technical interpretation of the statement “17 year old Wellington boy” by conflating it with the reference to “poisoning” and ruled it was unlikely to mislead people.

The Appeal Board said the statement “Fluoride poisoning staring you in the face”, was misleading as the likely consumer take-out of the word poisoning denoted a serious and severe reaction to the ingestion of fluoride without adequate context, limited by the nature of the medium used. The Appeal Board ruled the reference to poisoning was in breach of Basic Principles 3 and 4 and Rule 2 of the Code of Ethics and was not saved by Rule 11 Advocacy. The Appeal Board ruled this aspect of the advertisement had not been prepared with a due standard of social responsibility and the complaint was Upheld.

The majority found that the reference to poisoning did not reach the threshold to be considered to play on fear unjustifiably when considered as part of an advocacy advertisement against fluoridation and ruled it was Not Upheld against Rule 6 of the Code of Ethics.

A minority said the statement did play on fear unjustifiably due to the lack of context offered by the medium and ruled the statement was in breach of Rule 6 of the Code of Ethics.

In summary, the statement “Fluoride poisoning staring you in the face” was ruled in breach of Basic Principles 3 and 4 and Rule 2 of the Code of Ethics and not saved by Rule 11 Advocacy.

The complaint was Upheld, in part.

**[Advertisement removed]**

Please note this headnote does not form part of the Decision.

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**APPEAL BOARD DECISION**

The Complaints Board ruled on 12 September 2017 the complaint made by Dr. K. Fuge and Dr. S Palmer was Upheld, in part.

The Advertiser appealed the Decision to the Chairperson of the Appeal Board because, in their view, two specific issues which the Complaints Board referred to in the Decision were not raised in the complaint. Specifically, the Advertiser said the Complaints Board found the Advertiser did not provide any evidence that dental fluorosis only occurs in childhood, and therefore the incidence across children and adults does not necessarily reflect the incidence in children and the inclusion of Level 1 – Questionable Dental Fluorosis in the total percentage was misleading.

In light of this information, the Chairperson held that on balance the appeal application had met the threshold to establish grounds for appeal under grounds (iii) evidence provided to the Complaints Board was misinterpreted and (v) it is a matter of natural justice the complaint be reheard and it was accepted to be heard by the Appeal Board.

The Appeal Board confirmed its role was to consider the matter *de novo* that is, starting from the initial complaint and reviewing all subsequent correspondence, rulings, and submissions, considering the matter afresh.

The Chairperson directed the Appeal Board to consider the advertisement with reference to Basic Principle 4 and Rules 2, 3, 6 and 11 of the Code of Ethics.

This required the Appeal Board to consider whether the advertisement contained any statement or visual presentation or created an overall impression which directly or by implication, omission, ambiguity or exaggerated claim was misleading or deceptive, was likely to deceive or mislead the consumer, made false and misleading representation, abused the trust of the consumer or exploited his/her lack of experience or knowledge. (Obvious hyperbole, identifiable as such, is not considered to be misleading). The Appeal Board was required to consider whether the advertisement used tests and surveys, research results or quotations from technical and scientific literature, in a manner which is misleading or deceptive.

The Appeal Board was also required to deliberate on whether the advertisement exploited the superstitious, nor without justifiable reason, played on fear and whether it had been prepared with a due standard of social responsibility to consumers and society.

The Appeal Board said the advertisements before it fell into the category of advocacy advertising and noted the requirements of Rule 11 of the Code of Ethics. The Appeal Board noted Rule 11 allowed for expression of opinion in advocacy advertising, provided that the expression of opinion is robust and clearly distinguishable from fact. Also applicable were the Advocacy Principles, developed by the Complaints and Appeals Board in previous decisions for the application of Rule 11. These said:

1. That Section 14 of the Bill of Rights Act 1990, in granting the right of freedom of expression, allows advertisers to impart information and opinions but that in exercising that right what was factual information and what was opinion, should be clearly distinguishable.
2. That the right of freedom of expression as stated in Section 14 is not absolute as there could be an infringement of other people's rights. Care should be taken to ensure that this does not occur.
3. That the Codes fetter the right granted by Section 14 to ensure there is fair play between all parties on controversial issues. Therefore in advocacy advertising and particularly on political matters the spirit of the Code is more important than technical breaches. People have the right to express their views and this right should not be unduly or unreasonably restricted by Rules.
4. That robust debate in a democratic society is to be encouraged by the media and advertisers and that the Codes should be interpreted liberally to ensure fair play by the contestants.
5. That it is essential in all advocacy advertisements that the identity of the advertiser is clear.

**The Appeal Board ruled the complaint was Upheld, in part and the Appeal was Dismissed.**

#### **Appeal Application from Advertiser**

The Appeal Board noted the concerns raised by the Advertiser the Complaints Board misinterpreted aspects of the complaint in two instances. These were:

- The Advertiser did not provide any evidence that dental fluorosis only occurs in childhood, and therefore that the incidence across children and adults does not necessarily reflect the incidence in children. The Advertiser disagreed as dental fluorosis was symptomatic of excess fluoride under the age of eight which was "accepted by both sides of this debate, including the Ministry of Health."
- The Advertiser included category "Level 1 – Questionable" dental fluorosis in the total statistic which was misleading. The Advertiser disagreed as the advertisement accurately quoted the findings of the 2009 Oral Health Survey, which "has reported dental fluorosis rates according to international norms."

The Chairperson ruled the complaint be heard *de novo* by the Appeal Board and reiterated it was not an arbiter of scientific fact, but rather its role was to consider the content of advertisement from the point of view of the likely target audience.

## Appeal Board Discussion

### Identification – was the Advertiser and their position clear?

The Complainant said “the identity of the advertiser is not clear and the advertiser’s position on the issue is not clearly communicated... There is the expectation that the identity of the advertiser and their position on the issue is clearly communicated. Here a website address (“[www.fluoridefree.org.nz](http://www.fluoridefree.org.nz)”) is not enough. The term “fluoridefree”, unless the observer had prior knowledge, could be interpreted in many different ways. The observer would not automatically understand the context of the advertisement.”

The Advertiser said, “our identity as the advertiser was made clear on the billboard and we believe that our position on fluoridation is also clear by our name ‘fluoridefree’. The vast majority of people would understand this means we see fluoride as something we would like to be free of i.e. something undesirable.”

The Appeal Board said the identity of the Advertiser was indicated by:

- the web address [www.fluoridefree.org.nz](http://www.fluoridefree.org.nz) which appeared on the banner at the bottom of the page; and
- the strong positioning statement “Fluoride poisoning staring you in the face”;

The Appeal Board agreed with the Complaints Board finding the advertisement before it fell into the category of advocacy advertising by anti-fluoridation group, Fluoride Free New Zealand and the identity and the Advertiser and their position on fluoridation was clear.

### 1. The photograph – was the image used misleading and deceptive?

The Complainant had three main concerns about the image as it appeared in the advertisement, these were:

- The teeth in the picture do not show evidence of any fluorosis and therefore this picture is misleading and deceptive.
- Associating “fluoride poisoning with a picture of lesions not associated with fluorosis” was likely to mislead or deceive the consumer and;
- The statement that “41% of NZ Children have some form of dental fluorosis” insinuates that all fluorosis presents with equivalent severity to that displayed in the image.

The Advertiser responded to the Complainant’s concern and was of the view the image depicted dental fluorosis. The Advertiser said it obtained independent advice from dentists who advised the condition was dental fluorosis and was of the view that whether it is actually dental fluorosis, or appears to the public as identical to dental fluorosis, does not affect their message. The Advertiser said, in part: “The point is that people do have dental fluorosis that looks just like the image used, therefore it becomes irrelevant whether the image depicts the actual condition or one essentially identical in appearance — it can have no influence on the public take-out from the advertisement, and can hardly be misleading when the key message is true.”

The Advertiser further said, in part: “the billboard states that ‘41% of children in New Zealand have *some form* of dental fluorosis’ which makes it clear to the average person the form displayed is only one form.”

The Appeal Board noted its finding that the advertisement was identified as from an advocacy group which opposed water fluoridation and as such, it applied a liberal interpretation of the Advertising Code and focused on the likely consumer take-out rather than taking an unduly technical interpretation. When considered from this perspective, the Appeal Board accepted the image in the billboard was an illustration of damage to teeth. It agreed with the Advertiser's assertion that the likely consumer take-out, that fluoride could cause damage to your teeth, was not affected by whether the image was unequivocally dental fluorosis. The Appeal Board said the image was representative of damage to teeth and it was unlikely to mislead people.

As such, the Appeal Board ruled the complaint made about the image was Not Upheld against Principle 3 and Rule 2 of the Code of Ethics.

## **2. "Fluoride poisoning staring you in the face".**

The Appeal Board noted the Complainant's concerns with the statement "Fluoride poisoning staring you in the face", stating that:

- "fluoride poisoning is not dental fluorosis"
- the "statement was portrayed as fact"
- the "word 'poisoning' suggests that all dental fluorosis is harmful" when "almost all dental fluorosis in New Zealand is the milder form" and not harmful.
- "the word 'poisoning' conjures up an emotional perspective which has no foundation in reality"

The Advertiser submitted that "dental fluorosis is the first outward sign of fluoride poisoning. Dental fluorosis is caused by the ingestion of too much fluoride as teeth are growing, which causes damage to the tooth enamel. The Medical Dictionary definition of 'poisoning' is: *Poisoning occurs when any substance interferes with normal body functions after it is swallowed, inhaled, injected, or absorbed.*

Therefore, dental fluorosis is undeniably a symptom of fluoride poisoning. Stating this is not misleading or deceiving - it is the truth. But it is especially relevant because fluoride is not considered a nutrient, as there is no known bodily function that requires it. It is, in fact, considered a contaminant in water and is regulated as such... the fact that this is a billboard with our name clearly displayed, indicates to the public that we are an advocacy organisation, so it is likely to be viewed by the public as our advocacy position."

The Appeal Board considered whether the statement "fluoride poisoning staring you in the face", in the context of the advertisement in its entirety, taking into account the image and the statement "41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey" presented from the perspective of an anti-fluoridation group, played on fear unjustifiably and whether it was likely to mislead.

The Appeal Board was of the view that the reference to the Ministry of Health survey in the advertisement increased the Advertiser's requirement to distinguish factual information from opinion as the reference acted to reinforce the Advertiser's view. The majority was also of the view the particular medium, a billboard, also increased the Advertiser's requirement to act responsibly to ensure the information presented was easily understood by its broad audience due

to the facts that a billboard is seen by a wide audience and is seen fleetingly as a person drives past. The overall quick take-out from the advertisement must accurately and fairly reflect the data relied on by the advertiser.

Taking the above into account, the Appeal Board considered the likely consumer take-out of the word poisoning. While it accepted the Advertiser relied on a technical definition where a substance interferes with normal bodily function, it was of the view a lay person's interpretation would be much more extreme. It said poisoning denoted a serious and severe reaction to the ingestion of fluoride and without further context, not provided for in the medium used, created a misleading impression.

The Appeal Board ruled the reference to poisoning was in breach of Basic Principles 3 and 4 and Rule 2 of the Code of Ethics and was not saved by Rule 11 Advocacy. The Appeal Board ruled this aspect of the advertisement had not been prepared with a due standard of social responsibility and the complaint was Upheld.

The majority found that the reference to poisoning did not reach the threshold to be considered to play on fear unjustifiably when considered as part of an advocacy advertisement against fluoridation and ruled it was Not Upheld against Rule 6 of the Code of Ethics.

A minority disagreed. It was of the view the statement was the dominant statement in the advertisement and, taking into account the billboard medium, did not provide enough context for such a categorical statement. The minority said given the lack of context, the statement unjustifiably played on fear. The minority said this part of the complaint was in breach of Rule 6 of the Code of Ethics.

However, in accordance with the majority, the complaint was Not Upheld under Rule 6 of the Code of Ethics.

### **3. Ministry of Health statistic: "41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey"**

Having established the image in the advertisement was illustrative of damage to teeth, the Appeal Board then considered the Complainant's concern:

- the statement that "41% of NZ Children *suffer* from dental fluorosis" insinuated "that all fluorosis presents with equivalent severity to that displayed in the image" and;
- it "evokes the false view that all dental fluorosis is considered to be harmful".

The Appeal Board noted the source of the statistic was the Ministry of Health's 2010 publication of the Key Findings of the 2009 Oral Health Survey: *Our Oral Health* and provided *Table 92: Prevalence of dental fluorosis, among dentate adults and children aged 8-30 years, by level of fluorosis (unadjusted prevalence)*.

The Advertiser's view was the reference to "some form of dental fluorosis" made it clear to the average person the image displays only one form of dental fluorosis and was not misleading as "the survey found a total of 44.5% of people aged 8 – 30 had some form of dental fluorosis."

The Appeal Board noted the Complainants had incorrectly read the statement as stating that children “suffer” from dental fluorosis when the statement said, “have some form of dental fluorosis” and therefore it disregarded this aspect of the complaint.

The Appeal Board noted factual statement in the advertisement was based from the Ministry of Health Oral Health Survey results as referenced in the advertisement. It said the statement was supported by the information provided by the Advertiser, albeit incorrectly quoted. With regard to the Complainant’s concern that the combination of the image and factual statement created a misleading impression that most dental fluorosis presented as severe, the Appeal Board took into account the advertisement was an advocacy advertisement presented from the perspective of an anti-fluoridation group. The Appeal Board agreed with the Advertiser’s assertion that “some form” of dental fluorosis acted as a caveat to signal to people that there were various forms of fluorosis. As the statement was supported and, taking into account its previous finding the image was representative of dental fluorosis, the Appeal Board said the statement in conjunction with the image was not misleading.

The Appeal Board ruled the complaint made about the statement was Not Upheld against Rule 3 of the Code of Ethics.

#### **4. Photo: 17 year old Wellington boy**

The Appeal Board noted the Complainant’s concerns with the statement in the advertisement: “Photo: 17 year old Wellington boy”, stating that:

- it “implies that the alleged fluoride poisoning is linked to fluoride exposure that took place in the Wellington region.”
- Poisoning from chemical contamination of the environment is a notifiable disease to the Medical Officer of Health and would include poisoning from Fluoride. Such notifications are required to be made on suspicion. The Medical Officer of Health has not been notified.

The Advertiser responded that it was not aware that fluoride poisoning needed to be notified.

The Appeal Board said the Complainant’s interpretation that fluoride poisoning in Wellington had not been reported to the Medical Officer of Health was an unduly technical interpretation of the statement “17 year old Wellington boy” which the Complainants had combined with the reference to “poisoning”. The Appeal Board ruled the complaint about the statement, “17 year old Wellington boy”, was Not Upheld against Rule 2 of the Code of Ethics.

#### **Summary**

The Appeal Board confirmed the Advertiser’s identity and position were clear, meeting the identification requirement of Rule 11 of the Code of Ethics and it applied a liberal interpretation of Advertising Code and focused on the likely consumer take-out.

The Appeal Board accepted the image in the billboard was an illustration of damage to teeth. It agreed with the Advertiser’s assertion that the likely consumer take-out, that fluoride could cause damage to your teeth, was not affected by whether the image was unequivocally dental fluorosis. The Appeal Board said the image was representative of damage to teeth and it was unlikely to mislead people and was Not Upheld against Principle 3 or Rule 2 of the Code of Ethics.

The Appeal Board found the statement “Fluoride poisoning staring you in the face”, was misleading as the likely consumer take-out of the word poisoning denoted a serious and severe reaction to the ingestion of fluoride without adequate context, limited by the nature of the medium used. The Appeal Board ruled the reference to poisoning was in breach of Basic Principles 3 and 4 and Rule 2 of the Code of Ethics and was not saved by Rule 11 Advocacy. The Appeal Board ruled this aspect of the advertisement had not been prepared with a due standard of social responsibility and the complaint was Upheld.

The majority found that the reference to poisoning did not reach the threshold to be considered to play on fear unjustifiably when considered as part of an advocacy advertisement against fluoridation and ruled it was Not Upheld against Rule 6 of the Code of Ethics. A minority said the statement did play on fear unjustifiably due to the lack of context offered by the medium and ruled the statement was in breach of Rule 6 of the Code of Ethics.

The Appeal Board said the factual statement “41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey” based from the Ministry of Health Oral Health Survey results supported by the information provided by the Advertiser, albeit incorrectly quoted. The Appeal Board said, when considered from the perspective of an anti-fluoridation group coupled with the qualifier “some form” of dental fluorosis signalled to people that there were various forms of fluorosis and did not imply all fluorosis presented as severe. The Appeal Board ruled the complaint made about the statement was Not Upheld against Rule 3 of the Code of Ethics.

The Appeal Board said the Complainant had taken an unduly technical interpretation of the statement “17 year old Wellington boy” combined with the reference to “poisoning” and ruled the complaint about the statement was Not Upheld against Rule 2 of the Code of Ethics.

Accordingly, the statement “Fluoride poisoning staring you in the face” was ruled in breach of Basic Principles 3 and 4 and Rule 2 of the Code of Ethics and not saved by Rule 11 Advocacy.

The complaint, considered *de novo* under the Appeal process, was Upheld, in part.

**Decision:** Complaint **Upheld, in part**

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## **ADVERTISEMENT DESCRIPTION**

The billboard advertisement for Fluoride Free New Zealand on the Hutt Road in Petone showed a close up image of teeth stating “17 year old Wellington boy”. The billboard read:

“Fluoride poisoning staring you in the face. 41% of NZ children have some form of dental fluorosis according to MoH Oral Health Survey. [www.fluoridefree.org.nz](http://www.fluoridefree.org.nz)”

## **COMPLAINT FROM K FUGE**

We wish to complain about a large billboard placed, by Fluoride Free NZ, at the railway end of Jackson Street, Petone facing traffic turning from Hutt Road into Jackson Street.

Our overarching concern is that the billboard goes beyond advocacy and is intended to inappropriately scaremonger parents so as to engender guilt about poisoning their children.

### **Grounds for Complaint**

We make this complaint with respect to the following grounds relating to the **Advertising Code of Ethics**:

**Principle 3:** the billboard advertisement is designed to mislead and deceive the observer;

**Principle 4:** the billboard advertisement was not prepared with a due sense of social responsibility;

**Rule 2:** the billboard advertisement contains statements and an image which portrays an exaggerated claim that is misleading and deceptive, and is otherwise not truthful;

**Rule 3:** the billboard advertisement uses research results and quotations from the 2009 National Oral Health Survey in a manner which is misleading and deceptive;

**Rule 6:** the billboard advertisement without a justifiable reason plays on fear;

**Rule 11:** the billboard advertisement does not meet the requirement for Advocacy Advertising. The information is expressed as fact rather than opinion and goes beyond what is considered to be an essential and desirable part of a functioning democratic society.

And in terms of the **Advocacy Principles**:

**Principle 1:** the billboard advertisement expresses views as facts rather than clearly distinguishing the information as opinion;

**Principle 3:** the billboard advertisement uses language that is out of synch with spirit of the code;

**Principle 4:** the billboard advertisement presents information on a matter where the science is settled and there is no debate;

**Principle 5:** the identity of the advertiser is not clear and the advertiser's position on the issue is not clearly communicated.

### **Description of Billboard**

The billboard has a photograph of front teeth with large white demarcated opacities in the incisal one third of the upper permanent incisors.

The statement in bold text: **"Fluoride poisoning staring you in the face"** is placed above the teeth.

Below the top teeth and superimposed on the image, also in bold text is written; "41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey". There is a website address in a blue shade superimposed on the image in the lower right corner.

In the lower left corner in smaller letters "Photo 17 year old Wellington boy".

### **Explanation**

This advertisement breaches the standards under the advertising **Code of Ethics Basic Principles Number 3** and **4**, and under the **Rules 2, 3, 6** and **11**.

**1. The photograph** is of large white demarcated opacities in the incisal one third to one half of the upper permanent incisors. Due to their demarcated rather than diffuse appearance and only located to two teeth rather than all the front teeth, the differential diagnosis of these demarcated opacities would be non-fluoride opacities<sup>1</sup>. They are most likely to be defects associated with a developmental condition called Molar-Incisor Hypomineralisation or a result of atypical trauma during development. These aetiological factors are distinct from fluorosis. The teeth in the picture do not show evidence of any fluorosis and therefore this picture is **misleading and deceptive**.

- Examples of mild, moderate and severe fluorosis are included in the appendix. (Australasian Academy of Paediatric Dentistry website, 2017). A New Zealand example was not available as this level of fluorosis is rare in New Zealand (Ministry of Health, 2009). It is recommended that the Complaints Board seek independent advice on the differential diagnosis of the lesions in the photograph from an expert in developmental dental defects of the enamel.
- The use of a photograph on a billboard about fluoride poisoning with a picture of lesions not associated with fluorosis is a breach of **Advertising Code of Ethics Basic Principle 3**; “No advertisement should be misleading or deceptive or likely to mislead or deceive the consumer” and **Advertising Code of Ethics Rule 2; Truthful presentation**.
- When associated with the statement that “41% of NZ Children have some form of dental fluorosis” it insinuates that all fluorosis presents with equivalent severity to that displayed in the image when in fact the fluorosis reported in the 2009 New Zealand Oral Health Survey is mostly “questionable” or “very mild” according to Deans Index (1939). These levels of fluorosis bear no similarity to the large photograph thus is also deceptive and misleading.

## **2. “Fluoride poisoning staring you in the face”.**

- This is misleading. Fluoride poisoning is not dental fluorosis. This is in breach of **Advertising Code of Ethics Basic Principles 3 and 4 and Rule 2; Truthful presentation**.
- This statement is portrayed as fact. It is not fact but rather it is the advertisers opinion thus is in breach of **Code of Ethics Rule number 11 Advocacy Advertising** “opinion should be clearly distinguishable from factual information”, and **Advocacy Principles 1, 3 and 4**.
- By use of the word ‘poisoning’, suggests that all dental fluorosis is harmful. Almost all dental fluorosis in New Zealand is the milder form, which dentists agree is not harmful. Here the word ‘poisoning’ conjures up an emotional perspective that has no foundation in reality. Therefore, the advertisement breaches **Advertising Code of Ethics Rule 6** in that it plays on fear.

## **3. 41% of NZ children suffer from some form of dental fluorosis according to the Ministry of Health Oral Health Survey**

This statement is misleading on its own and when used in conjunction with the image breaches **Advertising Code of Ethics Rule 3**.

- The use of the image suggests that fluorosis always presents in a form as severe as the image portrays. This is misleading.

- Moderate and severe fluorosis are not common in New Zealand. In the 2009 Oral Health Survey, the prevalence of severe fluorosis for 8-30 year olds was 0.0%. Moderate fluorosis was observed among 2.0% of 8- 30 year olds (Ministry of Health, 2010). The difference was not significant. Moderate fluorosis is considered a cosmetic rather than a functional adverse effect, is rare in New Zealand, and is not a sign of 'poisoning'.
- The use of the word 'suffer', once again, invokes the false view that all dental fluorosis is considered to be a harm. In the 2009 Oral Health Survey the prevalence 'questionable fluorosis' for 8-30 year olds was 27.2%, 'very mild fluorosis' was 10.2%, and 'mild fluorosis' was 5.1%. Almost all dental fluorosis in New Zealand would not be considered to be a harm.

#### **4. Photo of 17 year old Wellington boy**

- This statement implies that the alleged fluoride poisoning is linked to fluoride exposure that took place in the Wellington region. Poisoning from chemical contamination of the environment is a notifiable disease to the Medical Officer of Health and would include poisoning from Fluoride. Such notifications are required to be made on suspicion. The Medical Officer of Health has not been notified.

#### **5. Advocacy Principle 5 – identification of advertiser and the context of the advertisement**

- There is the expectation that the identity of the advertiser and their position on the issue is clearly communicated. Here a website address ("www.fluoridefree.org.nz") is not enough. The term "fluoridefree", unless the observer had prior knowledge, could be interpreted in many different ways. The observer would not automatically understand the context of the advertisement.

We are happy to provide further information and explanation if required by the Complaints Board.

#### **References**

Australasian Academy of Paediatric Dentistry. <http://aapd.org.au/>accessed 26/06/2017

Cutress TW and Suckling GW, 1990. Journal of Dental Research 69(Spec Iss):714-720

Dean HT, 1942. The investigation of physiological effects by the epidemiological method. Fluorine and dental health, American Association for the Advancement of Science, Washington, 19: 23-31. F.R. Moulton (Ed.).

Ministry of Health, 2010. Our Oral Health: Key findings of the 2009 New Zealand Oral health Survey. Wellington: Ministry of Health.

#### **CODE OF ETHICS**

**Basic Principle 3:** No advertisement should be misleading or deceptive or likely to mislead or deceive the consumer.

**Basic Principle 4:** All advertisements should be prepared with a due sense of social responsibility to consumers and to society.

**Rule 2, Truthful Presentation:** Advertisements should not contain any statement or visual presentation or create an overall impression which directly or by implication, omission, ambiguity or exaggerated claim is misleading or deceptive, is likely to deceive or mislead the consumer, makes false and misleading representation, abuses the trust of the consumer or exploits his/her lack of experience or knowledge. (Obvious hyperbole, identifiable as such, is not considered to be misleading).

**Rule 3, Research, Tests and Surveys:** Advertisements should not use tests and surveys, research results or quotations from technical and scientific literature, in a manner which is misleading or deceptive.

**Rule 6, Fear:** Advertisements should not exploit the superstitious, nor without justifiable reason, play on fear.

**Rule 11, Advocacy Advertising:** Expression of opinion in advocacy advertising is an essential and desirable part of the functioning of a democratic society. Therefore such opinions may be robust. However, opinion should be clearly distinguishable from factual information. The identity of an advertiser in matters of public interest or political issue should be clear.

## **RESPONSE FROM ADVERTISER: FLUORIDE FREE NZ**

**Description of Advertisement:** A 3x6 metre billboard on the Hutt Road in Petone containing a photo of a Wellington boy's teeth that we believe to be dental fluorosis.

### **Our Response:**

We have been asked to respond to this complaint under the following codes:

Code of Ethics — Basic Principles 3 and 4

Code of Ethics — Rule 2

Code of Ethics — Rule 3

Code of Ethics — Rule 6

Code of Ethics — Rule 11

Advocacy Principle - Rule 5

### **Code of Ethics**

**Basic Principle 3:** No advertisement should be misleading or deceptive or likely to mislead or deceive the consumer.

**Basic Principle 4:** All advertisements should be prepared with a due sense of social responsibility to consumers and to society.

**Rule 2: Truthful Presentation** Advertisements should not contain any statement or visual presentation or create an overall impression which directly or by implication, omission, ambiguity or exaggerated claim is misleading or deceptive, is likely to deceive or mislead the consumer, makes false and misleading representation, abuses the trust of the consumer or exploits his/her lack of experience or knowledge. (Obvious hyperbole, identifiable as such, is not considered to be misleading).

**Rule 3: Research, Tests and Surveys** — Advertisements should not use tests and surveys, research results or quotations from technical and scientific literature, in a manner which is misleading or deceptive

**Rule 6:** Fear Advertisements should not exploit the superstitious, nor without justifiable reason, play on fear.

**Rule 11: Advocacy Advertising** Expression of opinion in advocacy advertising is an essential and desirable part of the functioning of a democratic society. Therefore, such opinions may be robust. However, opinion should be clearly distinguishable from factual information. The identity of an advertiser in matters of public interest or political issue should be clear.

**Advocacy Principle Rule 5** That it is essential in all advocacy advertisements that the identity of the advertiser is clear

### **Basic Principle 3**

The complainant argues that the photo provided is not dental fluorosis.

Before posting this billboard, we obtained independent advice from dentists who advised us that the condition was dental fluorosis. A search on the internet will show many images similar, or worse, than the one on the billboard. The complaint acknowledges that the diagnosis of dental fluorosis is not clear cut as they suggest that the ASA seek independent advice. We believe the image we have provided is dental fluorosis. But whether it is actually dental fluorosis, or appears to the public as identical to dental fluorosis, does not affect the message. The point is that people do have dental fluorosis that looks just like the image used, therefore it becomes irrelevant whether the image depicts the actual condition or one essentially identical in appearance — it can have no influence on the public take-out from the advertisement, and can hardly be misleading when the key message is true.

The complainant asserts that the billboard implies that all dental fluorosis in NZ will appear as it does in the billboard and that the level of fluorosis displayed on the billboard is not representative of the vast majority of cases of fluorosis.

The billboard states that "41% of children in New Zealand have some form of dental fluorosis". That makes it clear to the average person that there are various forms and degrees of dental fluorosis, so obviously the form displayed is only one of them.

The 2009 Oral Health Survey says that 5.1% of New Zealanders have mild dental fluorosis and 2.0% have moderate dental fluorosis. The photo on the billboard represents over 7% of New Zealand children who have that level or worse. 7% of the population is a significant number.

The complaint states that "fluoride poisoning is not dental fluorosis". We find this an odd statement as it is like saying "nut allergy is not anaphylactic shock".

Dental fluorosis is the first outward sign of fluoride poisoning. Dental fluorosis is caused by the ingestion of too much fluoride as teeth are growing, which causes damage to the tooth enamel. The Medical Dictionary definition<sup>2</sup> of "poisoning" is: "*Poisoning occurs when any substance interferes with normal body functions after it is swallowed, inhaled, injected, or absorbed.*"

Therefore, dental fluorosis is undeniably a symptom of fluoride poisoning. Stating this is not misleading or deceiving - it is the truth. But it is especially relevant because fluoride is not

considered a nutrient, as there is no known bodily function that requires it. It is, in fact, considered a contaminant in water and is regulated as such.

*Maximum acceptable values for chemical contaminants, both natural and of human origin, are listed in two tables in the DWSNZ. The first (Table 2.2 in the DWSNZ) lists inorganic chemicals such as nitrate, metals and chemicals used to disinfect water. Classes of chemical contaminants in the table are:*

- *metals and metalloids*
- *inorganic disinfection by-products*
- *disinfectants*
- *a miscellaneous group outside the above classifications: beryllium, boron, cyanide, fluoride, nitrate and nitrite.*

<http://www.mfe.govt.napublicationsirma/draft-users-guide-nationakenvironmental-standard-sources-human-drinking-water-0>

Therefore, it is a fact that dental fluorosis is a symptom of fluoride poisoning, so therefore it should be able to be stated as such, since no one actually disputes that. However, the fact that this is a billboard with our name clearly displayed, indicates to the public that we are an advocacy organisation, so it is likely to be viewed by the public as our advocacy position.

#### **Basic Principle 4**

We have prepared our advertisement with a due sense of responsibility, with attention to the fair and robust treatment of matters which concern the public, as this is our raison d'être. We understand it is not the mandate of the ASA to make judgments on which opinions are more valid than others, or to be the arbiter of fact. We firmly believe New Zealanders have a right to know that the Ministry of Health has found that a large proportion of children have an enamel defect, called dental fluorosis, which is caused by too much fluoride ingested when teeth are growing.

It is socially responsible to give this information to consumers.

#### **Rule 2: Truthful Presentation**

The advertisement is a truthful presentation of dental fluorosis and the number of New Zealand children who are impacted.

#### **Rule 3: Research, Tests and Surveys**

We have quoted the Ministry of Health's 2009 Oral Health Survey, which found over 40% of children have some form of dental fluorosis. We used this survey as it is the most recent survey carried out by anyone in New Zealand into the prevalence of dental fluorosis. It is also the survey that the Ministry of Health uses to claim benefit and to base their advocacy for extended fluoridation. If the survey is reliable enough for the Ministry of Health, then it must be reliable enough for others.

#### **Rule 6: Fear**

The complainant states that by using the word "poisoning" the advert breaks Rule 6. However, as discussed in Principle 3, dental fluorosis is the first outward symptom of fluoride poisoning. We do not believe we should be censored into calling it something other than what it is.

We are calling it "poisoning" because over-exposure has serious ramifications. There are four studies that have looked at dental fluorosis and IQ. All four have found that any level of dental fluorosis corresponds with a lowering of IQ.

*"It is clearly evident that with increase in the grade of fluorosis, a trend of increase in the IQ grade (decrease in intellectual capacity) was observed indicating a strong correlation between fluorosis grade and IQ grade"* <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4668514/>

The complainant also states that "dentists agree that it is not harmful". There are actually thousands of dentists worldwide that do not agree "that it is not harmful", but that is beside the point, as dentists are not toxicologists and it is not under their purview to diagnose outside of the mouth.

The complainant asserts that dental fluorosis cannot be considered a harm. However, even damage to the enamel of teeth is a harm. It is undeniable that the teeth have been harmed by fluoride. Because fluoride proponents do not think that matters, does not equate to no harm.

And because evidence in the scientific literature is showing that any form of dental fluorosis is an indication that fluoride has affected the developing brain - describing dental fluorosis as a symptom of fluoride poisoning is reasonable.

Children can develop a thin blue line on their gum (Burton's Line) if over-exposed to lead. If we were to show an image of a child's gum with a thin blue line and said "Lead poisoning hiding under your lip", no one could claim that this was misleading, incorrect or exaggerated.

A letter published in a US newspaper' on Monday the 18th of July 2017 by dentist David Ball D.D.S says:

*"As a dentist in the Chillicothe area, I have become very concerned with the negative effects I have seen in many of my patients from ingesting too much fluoride. Dental fluorosis, one of the first visible signs of people suffering from a toxic amount of fluoride, characteristically shows up as white, brown, or chalky spots on the teeth. Ingested fluoride becomes part of the developing teeth from 0-8 years old. These spots are unappealing and can be costly to correct, while also negatively affecting one's self-esteem. Research states that ingesting too much fluoride can cause other more serious health problems as well. "*

We believe parents have the right to know that a large proportion of children are developing this symptom of over-exposure to fluoride so that they can take active steps to reduce their child's exposure if they so choose.

We are pleased that the complainant has advised us that fluoride poisoning needs to be notified. Obviously, people do not realise that.

### **Rule 11: Advocacy Advertising**

The complainant argues that we are stating our opinions as fact. It is undeniable that the Ministry's Health Survey showed over 40% of children with some form of dental fluorosis. It is also a fact that dental fluorosis is the result of too much fluoride. In our view, this means the child has been poisoned. As this is a billboard with our name clearly provided, it is obvious to even the casual observer that this is our advocacy position.

### **Advocacy Principle Rule 5**

Our identity as the advertiser was made clear on the billboard and we believe that our position on fluoridation is also clear by our name "fluoridefree". The vast majority of people would understand this means we see fluoride as something we would like to be free of i.e. something undesirable.

<sup>1</sup> [https://en.wikipedia.org/wiki/Dental\\_fluorosis](https://en.wikipedia.org/wiki/Dental_fluorosis)

<sup>2</sup> <http://medical-dictionary.thefreedictionary.com/poisoning>

<sup>3</sup> <http://www.chillicathegazette.com/story/opinion/readers/2017/07/16/letters-editor-acha-hurts-rural-families-water-fluoridation-discussion/471762001/>

### FURTHER RESPONSE FROM THE ADVERTISER: FLUORIDE FREE NEW ZEALAND

The billboard states that “41% of children in New Zealand have some form of dental fluorosis”. This statistic is from the 2009 Oral Health Survey that was published in the Ministry of Health’s 2010 publication *Our Oral Health* which can be found online<sup>1</sup> and also attached as a pdf to this email (see page 196).

**Table 92:** Prevalence of dental fluorosis, among dentate adults and children aged 8–30 years, by level of fluorosis (unadjusted prevalence)

Level of fluorosis	Prevalence (95% CI) among 8–30-year-olds		
	All	Living in fluoridated areas	Living in non-fluoridated areas
None (level 0)	55.5 (49.0–62.0)	54.5 (45.9–63.0)	56.9 (48.3–65.6)
Questionable (level 1)	27.2 (22.2–32.2)	30.6 (23.3–37.9)	22.7 (16.3–29.0)
Very mild (level 2)	10.2 (6.6–15.0)	10.2 (5.5–16.9)	10.3 (5.7–16.8)
Mild (level 3)	5.1 (2.9–8.1)	3.0 (0.8–7.6)	7.8 (4.3–12.7)
Moderate (level 4)	2.0 (0.7–4.4)	1.7 (0.3–5.5)	2.3 (0.5–6.8)
Severe (level 5)	0.0 (0.0–0.8)	0.0 (0.0–1.5)	0.0 (0.0–1.8)

Source: 2009 New Zealand Oral Health Survey

The survey found a total of 44.5% of people aged 8 – 30 had some form of dental fluorosis. The lower figure of 41% was actually a mistake on our behalf. The fact that the results given in this survey were for 8 to 30 years olds, hence it included adults, does not alter the fact that it is saying over 40% of children have some form of dental fluorosis.

Dental fluorosis only occurs in the first eight years of life. Therefore, the 30 year olds in this survey would have had dental fluorosis since the age of eight. We can therefore state confidently that over 40% of eight years olds have some form of dental fluorosis.

For example, if we were to say 30% of 8 – 30 year olds have a birth mark we can then confidently say that 30% of 8 year olds have a birth mark unless we had reason to believe the incidence of birth marks had increased or decreased over the last 30 years.

<sup>1</sup> <http://www.health.govt.nz/publication/our-oral-health-key-findings-2009-new-zealand-oral-health-survey>

In the case of dental fluorosis, there is no indication whatsoever that the incidence has decreased. In fact, it is far more likely that the incidence of dental fluorosis has increased since there has been no reduction in fluoride exposure. Since 2010, NZ Plunket have been providing free fluoride toothpaste<sup>2</sup> to all 5 month old babies.

As stated in our previous response, these are the latest statistics available in New Zealand on dental fluorosis.

**“Dental fluorosis, no matter how slight, is an irreversible pathological condition recognized by authorities around the world as the first readily detectable clinical symptom of previous chronic fluoride poisoning. To suggest we should ignore such a sign is as irrational as saying that the blue-black line which appears on the gums due to chronic lead poisoning is of no significance because it doesn't cause any pain or discomfort.” - Dr. Geoffrey Smith in “Fluoridation - are the dangers resolved?” New Scientist ( 5 May 1983)**

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<sup>2</sup> <https://www.plunket.org.nz/news-and-research/media-releases/colgate-and-plunket-committed-to-keeping-kiwi-kids-smiling/>

## **SUMMARY OF THE COMPLAINTS BOARD DECISION**

The billboard advertisement from Fluoride Free showed an image of discoloured teeth with the qualifier “Photo: 17 year old Wellington boy” and stated: “Fluoride poisoning staring you in the face. 41% of NZ children have some form of dental fluorosis according to MoH 2009 Oral Health Survey. [www.fluoridefree.org.nz](http://www.fluoridefree.org.nz).”

The Complainants raised concerns the Advertiser and their position was not clear in the advertisement. The Complainants also said the advertisement was misleading because the image used did not show evidence of dental fluorosis, the reference to “fluoride poisoning” suggests all fluorosis is harmful and played on fear and the statistic quoted relating to 41% of children having some form of fluorosis was unable to be substantiated.

The Advertiser said the advertisement was not misleading and it had received advice the image shown did depict dental fluorosis. It was of the view dental fluorosis was a symptom of fluoride poisoning and provided information from the Key Summary of the 2009 Oral Health Survey to support the statistic quoted in the billboard.

The Complaints Board said the Advertiser and their position were clear in the advertisement and met the identification provision of Rule 11 of the Code of Ethics. The majority said the image in advertisement was unlikely to mislead people as image was illustrative of dental fluorosis in the context of an advocacy advertisement from an anti-fluoridation group. The Complaints Board said the reference to ‘dental fluorosis’ as symptom of ‘fluoride poisoning’ in the context of an advocacy advertisement from an anti-fluoridation group was unlikely to mislead consumers. While it acknowledged a level of fear, this did not reach the threshold to breach Rule 6 in the context of an advocacy advertisement.

With reference to the specific claim in the advertisement that “41% of NZ children have some form of dental fluorosis” the Complaints Board said this was likely to mislead consumers and presented research results in a manner that was deceptive.

The Complaints Board said this aspect of the advertisement was in breach of Rule 2, Rule 3 and Rule 11 of the Code of Ethics and the advertisement had not been prepared with a due sense of social responsibility to consumers and society required by Basic Principle 4 of the Code of Ethics. The Complaints Board ruled the complaint relating to the claim was Upheld.

The Complaints Board ruled the complaint was Upheld, in part.

## APPEAL APPLICATION FROM FLUORIDE FREE NZ

We wish to appeal the ruling in part; specifically the two findings that the advertisement was in breach of the Code:

- 1) That we did not provide any evidence that dental fluorosis only occurs in childhood, and therefore that the incidence across children and adults does not necessarily reflect the incidence in children;
- 2) That we included the category Level 1 – Questionable in our total, and should not have.

The rulings are contained in the following paragraph:

The Complaints Board expressed concern with the Advertiser incorrectly quoting the statistic. It also said it was misleading to include "questionable" dental fluorosis in the total number as it was unclear whether there was evidence of dental fluorosis in what was a substantial proportion of the overall statistic. Further, the Complaints Board said the information provided was for "adults and children aged 8-30 years" which did not support the claim that "41% of *children* had some form of dental fluorosis". It said no evidence provided to support the Advertiser's view that dental fluorosis only occurs in children up to the age of eight.

We appeal on the following grounds:

- The proper procedures have not been followed (the ASCB created its own grounds of complaint not raised by the complainant, and in one case the information was accepted by the complainant as correct).
- There is new evidence of sufficient substance to affect the decision (i.e. evidence we were not given the opportunity to present as the ASCB did not forward its own grounds of complaint to us for response).
- The decision is against the weight of evidence.
- It is in the interests of natural justice that the matter be reheard.

## Appeal details

1. *That we did not provide any evidence that dental fluorosis only occurs in childhood, and therefore that the incidence across children and adults does not necessarily reflect the incidence in children*

First, the Complainants did not raise this in their complaint, presumably because they, like everyone involved in this issue, understand that dental fluorosis in adults is always the result of dental fluorosis arising during childhood. The ASCB has come up with this ground of complaint on its own.

Further, having invented this ground of complaint, it was not put to us for response. This is a further breach of procedure and natural justice.

We included an explanation purely for clarification, as a result of a discussion with an ASA staff member, who advised she was confused by the apparent anomaly.

Second, we challenge this finding on the following further grounds:

We included two quotations from qualified dentists confirming this fact. On previous ASCB rulings, this alone is sufficient to substantiate our position.

In addition, this fact is accepted by both sides of this debate, including the Ministry of Health.

If the ASCB now requires more evidence than it has under precedent, we should have been advised of this. We attach the most up to date research confirming this fact beyond any reasonable doubt – the most important years are up to age 4 (Hong and Levy, 2006).

The Ministry of Health states the following on its website at <http://www.health.govt.nz/our-work/preventative-health-wellness/fluoride-and-oral-health/fluoride-and-health/infant-formula-and-fluoridated-water> (emphasis added):

A recent report of the United States National Research Council (NRC) called 'Fluoride in Drinking Water: A Scientific Review of EPA's Standards', raised the possibility that infants could receive a greater than optimal amount of fluoride through liquid concentrate or powdered baby formula that has been mixed with water containing fluoride during a time that their developing teeth may be susceptible to enamel fluorosis."

and

"The Ministry of Health believes current New Zealand information indicates that appropriate steps are being taken to control fluoride intake in New Zealand. New Zealand information does not indicate that children are developing inappropriate levels of enamel fluorosis."

In discussing infant formula the Ministry states:

“Labels on packages of infant formula product that contain the above levels of fluoride must indicate that consumption of the formula has the potential to cause dental fluorosis.”

In relation to fluoridated toothpaste:

“Excessive toothpaste consumption by young children can be associated with higher levels of enamel fluorosis.”

### “Enamel fluorosis

The following photos provide examples of normal teeth and the types of mild to moderate diffuse enamel fluorosis that is most commonly associated with water fluoridation. The most recent New Zealand information indicates that about 29% of 9-year-old children in Southland who had always received fluoridated water had these changes to the tooth enamel. This level had not changed since several earlier studies undertaken in the 1980s.

The Ministry’s web page then refers and links to a paper by ESR (Institute of Environmental Science and Research), *Estimated Dietary Fluoride Intake for New Zealanders*, July 2009, attached, which states at page 3 (emphasis added):

### 1.2 Health Effects of High Fluoride Intakes

Exposure to elevated levels of fluoride can cause fluorosis of teeth and bones (World Health Organization, 2002) and has been shown in some studies to cause an increase in bone fractures in elderly people (as reviewed in ATSDR, 2003). Consuming elevated concentrations of fluoride during tooth development can cause dental fluorosis (between the ages of 1–8 years) (Agency for Toxic Substances & Disease Registry, 2003). A dose response relationship exists between fluoride intake during tooth development and severity of fluorosis (National Research Council, 1993; World Health Organization, 2002), with the duration of exposure also being important (Agency for Toxic Substances & Disease Registry, 2003; Aoba and Fejerskov, 2002). Dental fluorosis ranges from mild cosmetic defects in the enamel (diffuse or demarcated opacities), to more severe pitting, discolouration and brittleness (hypoplasia) (National Research Council, 1993).

The Statistics were from 8 – 35 year olds. As at 2009, a 35 year old would have been born in 1974. The majority of fluoridation schemes in NZ were commissioned between 1972 and 1974. So 35 year olds would have been exposed to fluoridated water from birth. They would have turned 8 in 1982. As noted by the Ministry of Health, the 1980s studies showed the same rate of fluorosis as today. So 35 year olds reflect the same fluorosis rates as today’s 8 year old children, having been damaged in the same way and to the same extent as children.

2. *That we included the category Level 1 – Questionable in our total, and should not have.*

The Complainants did not raise this in their complaint – they accepted that Level 1 was correctly included in the total fluorosis rate at the third bullet point of their complaint:

**3. 41% of NZ children suffer from some form of dental fluorosis according to the Ministry of Health Oral Health Survey**

This statement is misleading on its own and when used in conjunction with the image breaches Advertising Code of Ethics Rule 3.

- The use of the image suggests that fluorosis always presents in a form as severe as the image portrays. This is misleading.
- Moderate and severe fluorosis are not common in New Zealand. In the 2009 Oral Health Survey, the prevalence of severe fluorosis for 8-30 year olds was 0.0%. Moderate fluorosis was observed among 2.0% of 8- 30 year olds (Ministry of Health, 2010). The difference was not significant. Moderate fluorosis is considered a cosmetic rather than a functional adverse effect, is rare in New Zealand, and is not a sign of 'poisoning'.
- The use of the word 'suffer', once again, invokes the false view that all dental fluorosis is considered to be a harm. In the 2009 Oral Health Survey the prevalence 'questionable fluorosis' for 8-30 year olds was 27.2%, 'very mild fluorosis' was 10.2%, and 'mild fluorosis' was 5.1%. Almost all dental fluorosis in New Zealand would not be considered to be a harm.

Their only complaint is that most fluorosis is at the lower level and moderate to severe is almost unknown in NZ (As an aside this latter claim is false, as McKay and Thompson, 2005, in research on dental fluorosis in Southland identified 5% of fluorosis as severe). Consequently, the ASCB has invented its own ground for complaint.

We put the question to Dr Hardy Limeback DDS, Professor Emeritus and former Head of Preventive Dentistry, University of Toronto, as to what this categorization actually means, and whether it should or should not, according to international norms, be included in the total.

The scale used is the Dean Index, as noted by the complainants. Level 1 (Questionable) is described as follows:

Questionable: "The enamel discloses slight aberrations from the translucency of normal enamel, ranging from a few white flecks to occasional white spots. This classification is utilized in those instances where a definite diagnosis of the mildest form of fluorosis is not warranted and a classification of 'normal' is not justified."

Dr Limeback replied as follows.

[The key point is that] " ' Normal not justified' ... depends on the 'calibration' (training) of the examiners (usually dental hygienists) using pictures.

The best researchers will test the examiners on real patients and report the 'agreement' stats (kappa value).

So if the government reports that 44.5% of kids have 'abnormal' teeth, then that's what their examiners found."

In terms of how this category is treated according to international norms:

"when TOTAL fluorosis levels are reported, they include the 'questionable' category....after all they aren't normal."

"So the Advertising Complaints Board could rule that the NZ 2009 Oral health Survey is incorrect, overestimating the total level of total fluorosis." (of course it cannot, as the Oral Health Survey is not an advertisement, but Dr Limeback could not be expected to know that.)

The point is that we have quoted, correctly, the findings of the 2009 Oral Health Survey, which has reported dental fluorosis rates according to international norms (i.e. including Level 1 - Questionable). If the ASA has an issue with this norm it needs to take that up with the international scientific and dental community. But it cannot find us in breach of the Code because we have complied with those international norms for reporting dental fluorosis rates. If we deviated from them no one would be able to compare "apples with apples". Moreover, we would be misrepresenting the Oral Health Survey, which in itself would be a breach of the Code.

## **FURTHER INFORMATION FROM ADVERTISER, FLUORIDE FREE NZ**

Thank you for your advice that our appeal will go to the Appeal Board to be heard *de novo*.

First, I advise that the advertisement is no longer displayed, as the billboard lease term expired at the end of June.

As the hearing will be *de novo* I wish to include what I consider crucial information that was deleted from the draft response for the original hearing. This relates to the way dental fluorosis occurs. Although general reference to the fact that all dental fluorosis results from fluoride poisoning was made in our response, this level of detail, which moves us from our opinion to scientifically-accepted fact, was omitted.

I have appended 3 pieces of research to support this, one of which also confirms that dental fluorosis only occurs during tooth formation (i.e. in children). You will note from the references on research publication #2 that these are a tiny fraction of that available.

It is a popular misconception that dental fluorosis is caused by an accumulation of fluoride in the tooth enamel. Consequently, it is also a misconception that dental fluorosis is purely cosmetic unless it structural affects the tooth.

In fact it is accepted medical science that dental fluorosis is a symptom of fluoride intoxication (poisoning) of bodily cells. Consequently, ALL dental fluorosis, no matter how mild, results from

fluoride intoxication (poisoning). It therefore makes no more sense to say that very mild dental fluorosis is not poisoning than to say that if a person only has a faint 'Burton's line' on their gums they haven't actually suffered lead poisoning.

The studies appended relate to the predominant medical/scientific view of how dental fluorosis occurs. There is a more recent hypothesis that it is caused by fluoride intoxication of the thyroid, reducing the levels of certain hormones produced, which in turn results in the symptom of dental fluorosis. As this would also demonstrate that ALL dental fluorosis is caused by intoxication (poisoning) of bodily cells, if it is correct, the outcome is the same regardless of which view is taken. Accordingly I will explain the mainstream view only.

As excessive fluoride is ingested some is eliminated and the remainder is stored primarily in the bones (to protect the rest of the body from chronic poisoning). Relevant to dental fluorosis, some fluoride is stored in the jaw bone.

Tooth enamel is made by cells called ameloblasts. Ameloblast cells are found in the jaw (unsurprisingly). Each new cell is made in a protein sheath until it is ready to be incorporated into the partially-complete tooth structure. You can think of it like a toffee in a wrapper.

When it is time to incorporate it into the developing tooth the ameloblast produces a protease enzyme to dissolve the protein sheath.

If the ameloblast is exposed to elevated levels of fluoride (in this case leaching slowly from the jaw bone where it has accumulated due to over-exposure to fluoride), the fluoride intoxicates (poisons) the ameloblast cell such that it does not produce sufficient enzyme. As a result the protein sheath is not fully removed. Incorporating the new enamel cell into the tooth then becomes like trying to stick two toffees together when one still has part of the wrapper on. This results in dental fluorosis.

It is critical to note that, as indicated above, this is the ONLY way dental fluorosis occurs: that is, it ONLY results from fluoride intoxication (poisoning) and is a symptom of that poisoning (of the ameloblasts).

Once one understands the mechanism by which dental fluorosis occurs the point of the advertisement's message "Fluoride poisoning staring you in the face" becomes clear: it is literally true, in every case of dental fluorosis.

In the original response it was stated that this was merely our opinion. I did not see the final response before it was sent, else I would have raised this omission. As it is, the ASCB held we were entitled to that opinion and, in context, it would have been seen as opinion, not a claim of fact.

As you can see, it is not simply our opinion. Although not all details of the mechanism are yet fully known, hence research continues, the overall mechanism is widely accepted by the scientific community. Unless the complainant can substantiate, by published scientific research, that some other mechanism not involving fluoride intoxication is accepted over the one described above, the Board must accept the documented position as being accepted by today's scientific community as fact until proven otherwise.

Apparently the complainants are unfamiliar with the medical science on this, going by the thoroughly incorrect and grossly misleading claims made in their complaint. I quote from the ASCB's ruling:

*Fluoride 'Poisoning'*

The Complainants said the "use of the word 'poisoning', suggests that all dental fluorosis is harmful. Almost all dental fluorosis in New Zealand is the milder form... the word 'poisoning' conjures up an emotional perspective that has no foundation in reality." The Complainants said the advertisement falsely implies 'fluoride poisoning' took place in the Wellington region specifically as the image includes the rider "17 year old Wellington boy". The Complainants said that "poisoning from chemical contamination of the environment is a notifiable disease" and there was no such record to support that claim.

The Complainants said the reference to 'poisoning' was misleading and played on fear unjustifiably.

As the Appeal Board will note from the research and explanation provided, this statement is false at every turn. This is par for the course for Dr Palmer, who I have exposed publicly on this count before today.

## **RESPONSE TO APPEAL FROM COMPLAINANT**

I am happy for the complaint to be revisited de novo, as is. I do note the paper given by Mark Aitken has a good description of the physical appearance of dental fluorosis which will help the reviewers make a decision about whether the photo depicts dental fluorosis or something different.

...The article you have been supplied by Mr Aitken is as an HTML and as a result can be altered. My only request is therefore that this be submitted in the original Journal PDF so that we know that the appeal board are reading the original paper with colour photographs attached.

## **RESPONSE FROM MEDIA: APN OUTDOORS**

There is nothing we want to add to this complaint. It seems to be a pure disagreement on medical facts.

## **RESPONSE FROM APN OUTDOORS TO APPEAL**

We will not be responding as we are in no position to comment on the merits or negatives of fluoride.

## **SUMMARY OF COMPLAINTS BOARD DECISION**

The Complainants raised concerns the identity of the Advertiser and their position was not clear in the advertisement. The Complainants also said the advertisement was misleading because the image was not dental fluorosis, the reference to "fluoride poisoning" suggested all fluorosis is harmful and played on fear and the statistic quoted "41% of children having some form of fluorosis" was misleading as it suggested that fluorosis always presents as severe.

The Advertiser said the advertisement was not misleading and it had received advice the image shown did depict dental fluorosis. It was of the view dental fluorosis was a symptom of fluoride poisoning and provided information from the Key Summary of the 2009 Oral Health Survey to support the statistic quoted in the billboard.

The Complaints Board said the Advertiser and their position were clear in the advertisement and met the identification provision of Rule 11 of the Code of Ethics. The majority said the image in advertisement was unlikely to mislead people as image was illustrative of dental fluorosis in the context of an advocacy advertisement from an anti-fluoridation group. The Complaints Board said the reference to 'dental fluorosis' as symptom of 'fluoride poisoning' in the context of an advocacy advertisement from an anti-fluoridation group was unlikely to mislead consumers. While it acknowledged a level of fear, this did not reach the threshold to breach Rule 6 in the context of an advocacy advertisement.

With reference to the specific claim in the advertisement that "41% of NZ children have some form of dental fluorosis" the Complaints Board said this was likely to mislead consumers and presented research results in a manner that was deceptive.

The Complaints Board said this aspect of the advertisement was in breach of Rule 2, Rule 3 and Rule 11 of the Code of Ethics and the advertisement had not been prepared with a due sense of social responsibility to consumers and society required by Basic Principle 4 of the Code of Ethics. The Complaints Board ruled the complaint relating to the claim was Upheld.