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The Association
of
STATE AND TERRITORIAL DENTAL DIRECTORS

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May 14, 1982

Robert Mecklenburg, D.D.S.
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5600 Fishers Lane
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Dear Bob:

Your PHS Draft Statement #5, dealing with fluoride in drinking water has been reviewed and there certainly has been changes made since the First Draft Statement.

The major problem in Draft Statement #5 is with point number 5 and point number 7. We do not like the last line of point number 5 "However, the possibility of some adverse oral change cannot be dismissed." Point number 7 seems to contradict the rest of your document and certainly we think that it is in direct conflict with the American Dental Association Resolution and resolutions from other organizations. ADA says that "...it is the opinion of the American Dental Association that the natural fluoride levels of drinking water in the United States do not constitute a health hazard...". Health as used in this statement of course means total health and it was pointed out on the floor of the ADA House of Delegates before this resolution was passed that fluorosis was not considered to be a hazard to health. I find it very interesting that you have chosen to divide health into general health and oral health and also to divide fluorosis into color changes and pitting. Also, I am rather surprised that you have now decided to set fluoride levels, especially at three times the optimum. Of course, you realize that the ADA in its statement does not consider a hazard to health (including oral health) to exist at that level. Also, in your own publication on Fluoridation - Nature's Way to Prevent Tooth Decay (DHEW Publication No. ((NIH)72-254) it is stated, "Research in areas of the U.S. where people have lived a lifetime on water containing as high as 8 ppm (about 8 times the optimum necessary for dental health) has shown that persons have grown up in good health using such waters for drinking, cooking, watering vegetable gardens, and all other usual water uses." Also, in the Division of Dental Health Comments to EPA, June 4, 1973, it is stated, "We believe that in the context of discussing limits to avoid concentrations of substances that 'may be hazardous to the health,' dental fluorosis should not be termed 'harmful'. The more severe dental fluorosis caused by highly excessive concentrations is described in the literature as unesthetic, cosmetically objectionable, or disfiguring, but is not described as hazardous to

health." Also in Drinking Water and Health by the National Academy of Sciences, 1977, it states "...it seems presumptuous for experts to recommend acceptable fluoride concentrations without direct evidence on the levels of fluoride that may be causing difficulty." You admit in your own document that you have no definitive data linking morphological changes such as pitting of enamel to premature loss of teeth, increased caries susceptibility or impaired dental function. Additionally, over the past several years and as late as your first official day in office, you personally have stated that fluorosis should not be considered a hazard to health.

Please consider the following recommended changes to Draft Statement #5:

1. Leave out the last line of the fifth point, "However, the possibility of some adverse oral change cannot be dismissed." When you started the process of developing the PHS Statement you told me that you were going to stick with scientific facts. Point number 5 admits that you do not have the scientific facts, therefore, the last line should not be included and certainly the word "adverse" should not be in the last line. It seems to us that the increased benefits from higher levels of fluoride would more than offset any guess-work that you may do about the effects of pitting. Point number 5 would then read:

   5. There are no definitive data linking morphological changes such as discrete or confluent pitting of the enamel surface to premature loss of teeth, increased caries susceptibility or impaired dental function.

2. In the seventh point starting with "Because of the equivocal nature of the data..." then add after the word data, the determination of whether and to what extent these cosmetic changes are esthetically objectionable is of such a subjective nature that specific community standards cannot be adequately defined by Federal government agencies. Therefore, fluoride might more reasonably be considered in the secondary standards rather than in the primary standards since the secondary standards are guidelines, and by definition would allow individual communities to weigh the benefits versus the cosmetic changes. We do not think you should make statements that you cannot prove as scientific facts. You should not be guessing. Point number 7 would then read:

   7. Establishing an upper limit of risk-benefit for water fluoride concentration must rely not only on estimates of the prevalence of severe fluorosis at various fluoride concentrations, but also on the concomitant caries-preventive benefits. The overall data suggest that at fluoride concentrations as great as three times optimum, dental fluorosis is largely limited to cosmetic changes in the enamel with possibly substantial additional protection against caries being realized. At the fluoride

We when he cannot prove,

concentration of four times optimum, some data suggest a marked increase in the prevalence of severe fluorosis, where as other data indicate that the prevalence of severe fluorosis continues to be low. Because of the equivocal nature of the data, the determination of whether and to what extent these cosmetic changes are esthetically objectionable is of such a subjective nature that specific community standards cannot be adequately defined by federal government agencies. Therefore, fluoride might more reasonably be considered in the secondary standards rather than in the primary standards since the secondary standards are guidelines and by definition would allow individual communities to weigh the benefits versus the cosmetic changes.

3. By making these changes: (1) You would be giving EPA some guidance as you were requested to do. (2) You would keep from classifying fluoride as a health hazard by recommending it be placed in secondary standards. If you feel like you have to mention three or four times the optimum, then recommend that these levels are put in the secondary standards which would simply be guidelines for individual communities, as they should be. This would be consistent with the intent of the 1962 PHS Recommended Drinking Water Standards which were guidelines for water systems. (3) ADA and many other organizations are on record as wanting fluoride in the secondary standards. (Attached is an attorney's opinion concerning moving fluoride from the primary to the secondary drinking water standards). And, (4) By making these changes, I think that you would have the support of organized dentistry instead of having many dental and medical organizations opposing the PHS and EPA position on natural fluoride levels.

We urge you to make these necessary changes. Also, attached is information showing that higher fluoride levels seem to reduce osteoporosis, help with hearing problems in patients who have cochlea symptoms, as well as decreased calcification of the aorta.

We are very concerned with the classification of fluoride as a health hazard and by the fact that it is in the Primary Drinking Water Standards. Unfortunately, the Public Health Service seems to persist in limiting its input and consultation to EPA to citing the known benefits of fluoride, and apparently has very little to say about what standards EPA should adapt regarding the semantics it uses in issuing its regulations.

Please recommend that fluoride be placed into the Secondary Drinking Water Standards.

Sincerely,

Michael L. Morgan, D.D.S.
Chairman, ASTDD Fluoride and
Health Study Committee

MLM:dd

Attachments:as