
Community and School Water Fluoridation: Summary and Recommendations

Summary of a report prepared for the American Association of Public Health Dentists by the AAPHD Subcommittee on Community and School Water Fluoridation, October 24, 1981

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Background

This report is a summary of a paper, prepared by a subcommittee of the Committee on Oral Health, that specifically addresses the promotion of water fluoridation. The charge to the subcommittee was to explore "all methods" that can help promote fluoridation and that can increase the number of individuals drinking fluoridated water, and then to develop a position paper.

A position paper was developed and presented to the American Association of Public Health Dentists, Committee on Oral Health, on October 24, 1981. The following policy resolution was adopted by the Association a year later in November 1982.

Whereas fluoridation of community water supplies is the most cost-effective and practical preventive measure for dental caries, and whereas about 70 million Americans live on central water supplies that are not fluoridated, be it resolved that:

the American Association of Public Health Dentists will continue to support and promote fluoridation of central water supplies as the foundation upon which better dental health for all Americans can be achieved.

In addition, whereas there are about 35 million

Americans who live in communities that do not have a central water supply, and whereas school fluoridation, and school-based self-applied fluoride programs have been demonstrated to be a cost-effective and practical preventive measure for dental caries for children, be it further resolved that:

the American Association of Public Health Dentists supports and promotes the use of school fluoridation or school-based self-applied fluoride programs in communities that do not have a central water supply.

This summary contains the major components of the fluoridation report. Since the original report was written, the 1981 Categorical Federal funds allocated to the community water fluoridation program in the Dental Disease Prevention Activity at the Centers for Disease Control (CDC) were placed in the Preventive Health Services Block Grant. The fluoridation funds from this block grant now go directly to the states, bypassing CDC. Because of the significance of this change, it is briefly described here.

Under the federal program administered by CDC, there was a monitoring and surveillance requirement. This requirement resulted in a signifi-

cant increase in the number of public fluoridation systems that regularly maintained optimal levels of fluoride. Prior to this requirement, many of these fluoridation systems were, in fact, not consistently maintaining optimum levels.

With fluoridation funds now being distributed directly to the states rather than through CDC, the monitoring and surveillance requirement has been dropped. The Association of State and Territorial Dental Directors (ASTDD) was concerned that without monitoring and surveillance, many fluoridation systems would again fail to maintain consistently optimal levels of fluoride. Because of this concern, the ASTDD formed the Fluoridation Monitoring and Surveillance Committee which has implemented a voluntary system of monitoring and surveillance of public water systems through state dental directors, city and county dental directors, and other dental public health professionals.

The Dental Disease Prevention Activity at CDC continues to function as a central collection point for the voluntary monitoring and surveillance reports, and as a clearinghouse for information on water fluoridation.

Community and School Water Fluoridation

Despite the demonstrated cost effectiveness and proven safety of fluoridation of community or school water supplies, fluoridation is far from a cut-and-dried issue. Strategies for obtaining permission to regulate the amount of fluoride in water supplies must be carefully planned and executed. Figures demonstrating the annual costs per person must be calculated and compared with per capita costs for caries in order to quell fears of added financial burdens. Each community considering fluoridation must be painstakingly surveyed so that the appropriate persons are approached and so that as much support as possible can be garnered prior to a vote by decision-makers. Referenda have proven a costly and ineffective means of achieving fluoridation for a number of reasons, and are often unnecessary in the first place.

Antifluoridationists are an active and vocal minority who have been repeatedly responsible for the defeat of fluoridation measures. Careful attention must be paid to the activities and strategies of these groups in order not only to counter the misinformation and erroneous assertions promulgated by such groups, but also to prepare officials for the onslaught of the scare tactics they often employ.

Fluoridation is no longer just a scientific issue, if it ever was. What now remains is an uphill battle against public apathy and the organized opposition of the antifluoridationists. With proper mobilization and application of the resources mentioned in this report, however, these problems can

be overcome to a large extent. Preparation, thoroughness, a "soft-sell" approach, and an unwillingness to underestimate the opponents of fluoridation are factors that will contribute greatly to a successful fluoridation effort.

Charge to the Subcommittee

This subcommittee was requested (1) to explore all methods that can help promote fluoridation and can increase the number of individuals in the United States who are drinking fluoridated water; and (2) to examine both the public and private sectors for resources to improve awareness and implementation of fluoridation. This paper presents as many different methods and resources to be used in attaining water fluoridation as could be identified.

Community vs. School Water Fluoridation

Community water fluoridation is clearly the most effective measure available to prevent dental caries. Community water fluoridation is indicated for any community that has a central water system and has a natural level of fluoride below 0.6 to 0.7 ppm. Newbrun states: "At some point, probably above 0.6 ppm natural fluoride, the cost effectiveness will be such as to not warrant water fluoridation."¹

School water fluoridation is not a satisfactory equivalent alternative to community fluoridation. School water fluoridation should be considered only for those communities without community water systems.

Impediments to Adoption of Fluoridation Problem Statement

Since the 1945 initiation of adjusted fluoride levels of public water supplies in the United States, there has been a gradual increase in the number of fluoridated communities, with a concomitant increase in the population benefiting from fluoridation. Based on the rapid rise of fluoridation activity during the 1960s, projections of near universal fluoridation of US public water supplies by the 1980s would not have been out of line. Nevertheless, approximately 70 million people on public water supplies in the US still do not receive the benefits of fluoridated water. The reasons for this slowdown are many:

1. *Public apathy.*
2. *Fluoridation referenda.*
3. *Government apathy.*
4. *Cost, particularly in communities suffering from economic privation.*
5. *Attempts to discontinue existing fluoridation programs.*
6. *Apathy of professionals.*

Discussion of Problem

The Council on Dental Health and Health Planning of the American Dental Association has expressed alarm over the small but increasingly effective vociferous minority with questionable credentials that manipulate the political process in opposing fluoridation.² The increasing rate of success of fluoridation opponents³ makes it more imperative than ever that proponents develop effective promotion strategies.

Fluoridation Feasibility

Because each community is unique, a strategy that is community specific must be developed to determine if and when water fluoridation attempts should be undertaken. With limited resources for undertaking fluoridation efforts, it is important to concentrate efforts in communities that hold some promise for success, i.e., those that indicate some degree of interest in fluoridation. Community demographics play an important role in determining the feasibility of community water fluoridation. Demographic factors to evaluate include:

1. *Community size.*
2. *Number and location of water sources.*
3. *Number and location of primary schools.*
4. *Ongoing fluoridation programs in the area.*

Role of Health Department

The task of fluoridating a community water supply is made easier when the city has a strong local health department that becomes involved in the educational campaign. In most instances, particularly in the absence of a well-staffed, active local health department, state health departments are especially important to the success of a fluoridation initiative.

The state dental director is usually the most logical coordinator of resources in fluoridation campaigns.

Other Leadership Groups

The Cooperative Extension Service of the US Department of Agriculture (CES) can be most helpful in fluoridation education campaigns. Citizens groups, such as Rotary and Kiwanis clubs, and Chambers of Commerce for example, should be included in educational campaigns. Health Systems Agencies should also be included in fluoridation education and political initiatives.

Organized labor, such as the AFL-CIO, teachers unions, and others, can assist in developing strategies to increase public acceptance of fluoridation, mobilize resources, and distribute information.

State dental political action committees which possess expertise in influencing politicians could,

through their contact with lawmakers, help overcome seriously misleading and inaccurate statements by antifluoridationists. Members of the Congress of the United States and state legislators should be educated about the ability of water fluoridation to save dollars expended in dental care programs.

Physicians, whether in family practice or a medical specialty, have been some of the most diligent and important allies in most fluoridation confrontations. All other community health personnel should be made aware of the advances of fluoridation for their community, and their assistance should be solicited.

The Public Health Service (PHS) of the US Department of Health and Human Services through the Centers for Disease Control (CDC) produces educational materials espousing the benefits, safety, and practicality of fluoridation.

The American Dental Association (ADA), state dental associations, and local dental societies can be of significant assistance in any fluoridation initiative. The American Dental Hygienists' Association has provided national and local resources for educating the public in the benefits of fluoridation.

The American Association of Public Health Dentists and the Dental Health Section of the American Public Health Association have also influenced public opinion. Their members are in all levels of government, professional schools, schools of public health and community health programs.

Approval without Referendum

The initial objective of water fluoridation efforts is to gain approval to adjust the natural fluoride level in the water preferably without a public referendum.

In gaining approval without a referendum, Young and Striffler suggest the establishment of the fluoridation effort as an activity of the local dental society.⁴ A complete fluoridation proposal should be presented to the society as the first step of implementation. The member dentists can then measure the degree of support fluoridation would receive from their medical associates and their friends or patients who might be influential in the community. A low-key, minimal-pressure education campaign of the community leaders on the benefits of fluoridation should be conducted.

When the measured support indicates that most of the community leaders and decision-makers favor fluoridation, attempts should be made to introduce water fluoridation measured through the appropriate local government channels, but only after a campaign committee has been organized. It is important to be prepared for a referendum even before attempting to gain approval from a governing body. When the fluoridation proposal is

presented to the governing body, as many influential fluoridation proponents as possible should be present.

Approval with Referendum

If the community decision-makers fail to make a decision and opt for a referendum, the fluoridation initiative becomes more complex. The essence of fluoridation has now shifted from a scientific public health issue to a political issue. If a referendum becomes necessary, the initial step should be to schedule the vote at a time that would attract the most voters.⁵ Another critical factor is the wording of the fluoridation proposal on the ballot.⁶

The next step is to raise funds required to conduct a successful campaign. Business, community service organizations, local foundations, professional organizations, and every other sympathetic group should be solicited for funds. Then, an intensive educational and informational campaign designed to reach as large a segment of the population as possible must be mounted.

It is imperative to be on top of the antifluoridationists' strategies. From time to time the strategies change, such as the strategy to word a ballot so that one must vote "no" to support fluoridation. If an antifluoridationist's strategy changes, the countermeasure must also change.

When a referendum forces a fluoridation initiative out of the scientific arena into the political arena, greater financial support is needed. Funds are required for the use of the media, personal contacts such as ringing doorbells and telephone calls, and in some instances, hiring public relations persons. Every effort should be made to persuade the proponents of fluoridation to vote in a fluoridation referendum. Opinions do not count unless expressed at the polls.

Conclusion

Community acceptance and adoption of fluoridation, either by referendum or governmental action, still represents the single most effective action the public can take to reduce the incidence and severity of dental disease. After over a half century of research, and nearly four decades of practical experience, fluoridation of community water supplies remains unchallenged as the most efficacious and cost-effective public health measure for the prevention of tooth decay.

Because of the apparent increase in the politicization of this issue, it is incumbent upon public health professionals to rejuvenate their interest in fluoridation, and to sharpen their political skills to meet the future challenges to this cornerstone of preventive health programs.

The American Association of Public Health Dentist retains its commitment toward its highest goal of universal fluoridation adoption and will continue to assume a leadership role whenever the issue presents itself.

References

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