AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE

(a White Paper from the American Dental Association and the Florida Dental Association)

In the current economic environment, people sometimes make economic choices that amount to being penny wise and pound foolish. In other words, they cut an expense today that appears to be a sure money saver. But they fail to take a long term view (or see the big picture) on the consequences of that action. They fail to see how money spent now can provide greater savings in the future. They might be penny wise and pound foolish.

A decision to eliminate funding for a successful community water fluoridation program would be an example of that kind of action.

How valuable is community water fluoridation?

Former U.S. Surgeon General Dr. C. Everett Koop said, “Fluoridation is the single most important commitment that a community can make to the oral health of its citizens.”

The Centers for Disease Control and Prevention has proclaimed community water fluoridation (among others measures such as vaccinations and infectious disease control) as one of 10 great public health achievements of the 20th century.¹ It remains a sound public policy approach to improving the health of communities.

Fluoridation is the cornerstone of a community’s oral health program as it helps to prevent tooth decay.

Fluoridation benefits everyone – children AND adults.

Studies prove water fluoridation continues to be effective in reducing tooth decay by 20-40%, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.²³

Optimally fluoridated water is accessible to the entire community regardless of socioeconomic status, education or other social variables.

Individuals do not need to change their behavior to obtain the benefits of fluoridation. Simply by drinking water, people can benefit from fluoridation’s cavity protection whether they are at home, work or school.

Fluoridation contributes much more to overall health than simply reducing tooth decay. It prevents needless infection, pain, suffering and loss of teeth and saves vast sums of money in dental treatment cost – particularly in cases where dental care is received through hospital emergency services or through surgical intervention in a hospital.

Is tooth decay still a problem?

Although tooth decay has declined in the United States, it still affects one-fourth of children aged 2-4 years, half of those aged 12-15 years, and more than 90% of those aged 60 and older.⁴ Effective prevention measures, including community water fluoridation, are underused – 30% of the U.S. population on public water supplies do not receive fluoridated water.⁵

Tooth decay is the most common chronic childhood disease. An estimated 51 million school hours are lost each year in this country because of dental-related illness.⁶

During dental exams conducted as part of the National Health and Nutrition Examination Survey from 1999 to 2004 show that 24% of 2- to 4-year-old children had experienced tooth decay (35% Mexican-American, 26% non-Hispanic black, 20% non-Hispanic white).⁷ The cost to society is enormous since dental disease accounts for 30% of all health care expenditures for children.⁸

Findings suggest that older adults (those over 60) experience tooth decay at rates equal to or greater than those in children. Tooth decay in older adults, especially low-income adults, is more likely to remain untreated. Untreated tooth decay reflects a need not only for treatment services, but also for effective prevention measures – such as fluoridation.⁹
What is the cost and savings of fluoridation?

The average cost for a community to fluoridate its water is estimated to range from approximately $0.50 a year per person in large communities to approximately $3.00 a year per person in small communities (expressed in 1995 dollars).  

<table>
<thead>
<tr>
<th>Community Size</th>
<th>Estimated Cost/Person/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5,000</td>
<td>$2.94</td>
</tr>
<tr>
<td>5,000 – 9,000</td>
<td>$1.54</td>
</tr>
<tr>
<td>10,000 – 20,000</td>
<td>$.98</td>
</tr>
<tr>
<td>&gt;20,000</td>
<td>$.46</td>
</tr>
</tbody>
</table>

An individual can have a lifetime of fluoridated water for less than the cost of one dental filling. (The national average fee for a two-surface amalgam (silver) restoration in a primary or permanent tooth placed by a general dentist is $124.69 [2007 dollars]).

Fluoridation actually saves money.
- Every dollar spent for community water fluoridation saves from $8 to $49 in treatment costs depending on the size of the community. Savings are greatest in large communities.
- Fluoridated water saves more than $4.6 billion annually in dental costs in the United States.

State Examples:
- In a 2005 study conducted in Colorado, it was estimated that fluoridation programs saved an average of approximately $61 per person on a yearly basis.
- In a study conducted in Louisiana, Medicaid-eligible children (ages 1-5) residing in communities without fluoridated water were three times more likely than Medicaid-eligible children residing in communities with fluoridated water to receive dental treatment in a hospital, and the cost of dental treatment per eligible child was approximately twice as high.

Alternative fluoride-delivery programs such as school-based fluoride mouthrinse programs, fluoride supplements, other professionally-applied topical fluorides and dental health education are beneficial but have not been found to be as cost-effective in preventing tooth decay as community water fluoridation. Additionally, these programs typically target only children and so do not provide the benefits of fluoride to all members of the community.

Cutting dental care costs by decreasing tooth decay is something a community can do to improve oral health and save money for everyone. With the escalating cost of health care, fluoridation remains a preventive measure that benefits all members of the community and is cost-effective.

When it comes to the cost of treating dental disease, everyone pays. Not just those who need treatment, but the entire community – through higher health insurance premiums and higher taxes.

The economic importance of fluoridation is underscored by the fact that, frequently, the cost of treating dental disease is paid not only by the affected individual, but also by the general public through services provided by health departments, community health clinics, health insurance premiums, the military and other publicly-supported medical programs.

Documenting the impact of fluoridation can be challenging, partially because the effect is not immediately apparent. However, studies have shown that tooth decay is reduced the most when fluoride is available through water fluoridation AND topical fluoride products such as fluoride toothpaste.

Florida’s communities should not be penny wise and pound foolish when it comes to the oral health of their citizens. Existing water fluoridation programs should remain in place – and communities without water fluoridation programs should consider establishing them..
References


March 2009