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Two articles in this issue of *Public Health Reports* seem to provide dramatically different views on whether or not tooth decay remains a public health problem. Brown and co-authors note that tooth decay rates in U.S. schoolchildren have declined dramatically in the past two decades. Edelstein and Douglass, on the other hand, express concern that distortion of national survey results, as represented by the oft repeated, "Half of the schoolchildren in the United States have never had a cavity," has made it too easy to infer (erroneously) that tooth decay no longer requires a public health focus.

In fact, as both papers ultimately agree, tooth decay is still highly prevalent in the United States—with an estimated annual dental bill exceeding \$2 billion to restore children's teeth that are decayed—and is a particularly significant problem for some individual children and subpopulations. Unfortunately, the detailed focus of both articles on survey design and data analysis and presentation may obscure the

## Tooth Decay

### Is It Still a Public Health Problem?

most important take-home messages:

- Substantive progress in reducing caries has been made but much remains to be done.
- A focus on *prevention*, especially in today's cost-conscious environment, is critical to continued progress.
- Survey results themselves point to the appropriate strategies for continuing to advance oral health and for benefits of collaboration between the dental services and research communities in promoting the results of research.

Over the past two decades, national surveys have demonstrated a consistent decline not just in *untreated* tooth decay but also in its *prevalence*—an important finding in that it tells us that efforts to *prevent* disease are indeed yielding results.

The increased availability of fluoride through drinking water and toothpaste—neither of which require professional intervention—is widely accepted as the primary reason for this progress (1). Nevertheless, only about half the population benefits from fluoridated water supplies. As recommended in *Healthy People 2000* (2), this benefit could be expanded if citizens will take action to ensure fluoridation.

Since fluoride is most effective in preventing decay on the smooth surfaces of teeth, the vast majority of decayed surfaces today are found on the grooved surfaces of teeth. Such decay can be prevented by the use of dental sealants—a professional service that continues to be underutilized. Fluoride and sealants complement one another and together with appropriate feeding practices for infants and young children, have the potential to eliminate dental caries as a public health problem, especially if directed toward children most in need.

Nonetheless, data show that the neediest children are the least likely to receive clinical preventive services because they are much less likely to have dental insurance or a regular source of dental care. Thus, the Public Health Service has targeted such children for special tracking in *Healthy People 2000*. As we move toward the year 2000, it will be important to increase access to preventive services for vulnerable populations and to monitor progress.

In the not so distant past, the public and the profession accepted the universal prevalence of tooth decay as inevitable. Biomedical and health services research have clearly demonstrated that prevention produces results. The proverbial glass is *both* half empty and half full.

Fifty percent prevalence for a preventable disease should not be a basis for complacency. We thank the authors of these two papers for bringing attention to this still important public health problem. Our pitcher of prevention contains the tools to fill the glass of need. Let's keep pouring!

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#### References

1. The lifetime benefits of fluoride for a healthy nation: return on investment in public health. U.S. Public Health Service, Washington, DC, 1994.
2. Public Health Service: *Healthy People 2000*. National health promotion and disease prevention objectives. DHHS publication No. (PHS) 91-50212. U.S. Government Printing Office, Washington, DC, 1990.