LETTER TO THE EDITOR

Response to the Letter to the Editor: “Preventing Caries in American Indian Children: Lost Battle or New Hope?”

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Tanzer et al. (2018) have offered important and thoughtful remarks in their letter commenting on our Invited Commentary, “Preventing Caries in American Indian Children: Lost Battle or New Hope?” (Albino et al. 2017). Several of the excellent points they have made are valid, including their characterization of early childhood caries (ECC) as an endemic infectious disease and the suggestion that there may be more effective biochemical interventions with which to manage ECC in American Indian children than the fluoride varnish that we used in one of our studies. These points do not negate the critical points we have attempted to make in describing the challenge of preventing ECC in high-risk populations, however. That challenge has less to do with the efficacy of various agents for eliminating *Streptococcus mutans* than it does with the individual and social acceptability of various strategies that actual children and their parents are likely to engage in this fight. To wit, the 2 studies that we reported were clinical trials of community-based participatory

approaches to prevention, not evaluations of biochemical agents. This means that they involved approaches that had been approved by the tribes as strategies that were likely to be well understood and accepted and, therefore, actually put into use by the parents of children who are highly susceptible to ECC. The behavioral aspects of the trials were the central focus—and in fact, the *only* focus of the second study that we described (in which no biochemical agents were involved at all). Herein lies the point that we find ourselves needing to make time and time again—that is, the most highly effective therapeutic agent available will be utterly useless if people do not want it, do not accept it, or do not use it. This, of course, is where behavioral strategies come in.

Tanzer et al. (2018) asserted that we have not used the most effective agents for solving the problem of ECC in American Indian children, and we agree that may well be the case—from a strictly biochemical perspective. On the other hand, we believe that the agents suggested by these colleagues also are

likely to prove ineffective in a setting in which behavioral strategies have not been used to ensure acceptance and adoption. As a case in point, the suggested addition of xylitol to the maternal diet was especially interesting, given the published failure of that agent in a study of Alaska Native (AN) pregnant women. Riedy (2010) reported that the AN women in that xylitol trial did not use xylitol gum as prescribed, since chewing gum was inimical to their tribal beliefs; other behavioral constraints also were described. Again, this is where behavioral strategies, embedded in cultural awareness, are essential. Note that we have referred to “behavioral strategies” and not to more generic “counseling,” as Tanzer et al. (2018) have done. While both “counseling” and “guidance” efforts by dental professionals generally lack reliability and have been ineffective in changing parental behaviors or reducing caries progression, the strategies in our studies included standardized instructional techniques designed and provided by tribal people and motivational interviewing strategies

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with documented fidelity; this difference is not insignificant. Finally, we point out that our Invited Commentary concluded not just that prevention strategies must begin earlier but that they must include still broader perspectives on all of the variables that influence the ability of children and their parents to benefit from prevention efforts.

Taking into consideration the comments by Tanzer et al. (2018) and the work of many others, as well as our own, we believe that the formidable challenge of preventing ECC in American Indian children, and in other high-risk populations as well, will require more than simply identifying the best agent for eliminating *S. mutans* at a moment in time. Rather, it will require finding the best ways of supporting prevention for

individuals and families in the context of their often extreme environmental conditions, as well as upstream histories of social, psychological, and economic conditions that may create a context of significant disadvantages and deficits with respect to the ability to access therapeutic agents, maintain healthy home practices for their children, and take advantage of other approaches that could prove helpful to them.

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