COMMENTARY ON O'CONNELL AND GRIFFIN

Economic context of employing behavioral interventions to improve oral health

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Drs. Joan O'Connell and Susan Griffin provide an important and well-developed manuscript that nicely illustrates the use of tools to better understand the economic context of employing behavioral interventions to improve oral health. In an environment of limited and often competed for financial resources, the appropriate use of economic tools helps to provide needed clarity for decision-makers. The timeliness and value of this paper is illustrated by the relative dearth of published oral health-related economic analyses. This is not so surprising though! Economic tools can be powerful, but they can also be difficult to use especially in the health-care arena. First, economic analyses do provide clarity but only partial clarity. Although an economic analysis may provide a result that is unambiguous and seemingly as it should be, the clarity of the outcome may be clouded by the possibility that for the decision-maker, other factors may just be more important. It is possible to measure the economic impact of two interventions with a result that, in economic terms, clearly favors one alternative that in other ways is less appealing. Second, an ability to measure the true economic cost of an intervention in health is too often obscured by the presence of third-party payers. For patients with private dental insurance, coverage lowers out of pocket expenditures concealing what a patient might be willing to pay for a behavioral intervention to improve oral health. As such, for covered patients, it is important to consider the counterfactual condition and attempt to determine what a patient would be willing to pay without coverage. For patients with public dental care coverage, out of pocket expenditures or willingness to pay is typically not germane. Instead, the public payer must decide what to pay in order to provide a behavioral intervention to improve oral health. For a self-pay patient, the analysis is individualized. For a patient with private insurance, the decision is joint, and for patients with public coverage, the decision is independent. Therefore, self-pay patients, patients with private insurance, and patients with public insurance will each view the cost of a behavioral intervention differently with an economic perspective that is individualized. The allocation of economic costs for the provision of a community-level behavioral intervention to improve oral health is more complex. A community-level intervention is a public good. Although all members of the community benefit from the intervention, not all members of the community might be willing to or want to pay for the intervention. As such, it is up to the public officials to make the decision for the community. Third, the value or benefit of an intervention is often difficult to measure and, sometimes, uncomfortable to discuss. A common denominator or metric from which competing alternatives can be measured is important to identify. While the gold-standard metric for economic comparison is the dollar, can we place a monetary value on having good oral health? Can we discuss the value of an improvement in oral health without being able to monetize it? Analysts have attempted to resolve this problem by developing metrics that are designed to proxy for the value of a health benefit. The authors include quality-adjusted life-year, oral health-related quality of life, averted caries, cases of disease prevented, tooth years gained, increased quality-adjusted tooth years, and years of life saved as some examples. As we increase the number of assumptions needed to develop a metric for comparison, we correspondingly lose precision in our measurement. Fourth, some costs are sunk costs and are committed independent of the intervention. Costs that have already been incurred and would not be avoided if the intervention would not to occur should not be included in the analyses to better understand the economic context of providing a behavioral

intervention to improve oral health. Fifth, when the time value of money is considered, the cost-to-benefit ratio for an intervention that will provide a benefit that will be realized in the future is less favorable than the cost-to-benefit ratio for an intervention that will provide a benefit that will be obtained immediately. The larger the gap in timing between the intervention and the benefit, the less favorable the cost-to-benefit ratio will be. Finally, money is fungible and perfectly liquid, meaning that if not used for an intervention, it could be used for something else. The loss of this alternative opportunity has value and failure to realize this alternative (opportunity cost) may be consequential.

Conflict of interest

The author declares no conflict of interest.