COMMENTARY

Steps to further reduce oral cancer burden for Marylanders

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Maybury *et al.* reported the outcomes of oral cancer early detection and prevention statewide model in Maryland at the 2011 Maryland Oral Health Summit (1). The report cited the reduction of oral cancer incidences and mortalities in Maryland from 1995 to 2009, which significantly improved the state's ranking in the nation. It suggested that the Comprehensive Cancer Control Plan developed in the state has contributed to the success and that the Maryland approach may serve as a model for other states.

It is commendable that Maryland took a concerted effort to address the high oral cancer incidence and the racial disparity issue from early 2000. The authors of the report have personally devoted substantial efforts in all the phases of the comprehensive plan. A statewide oral cancer prevention program with emphasis on problem identification (survey), training, and coordination is unique and effective. The authors acknowledged remaining challenges and made three specific recommendations with which I fully agree.

While we see progress being made, caution should be taken in evaluating multiple factors that contribute to the reduced oral cancer incidence and oral cancer mortality because factors other than the interventions implemented by State of Maryland may also weigh in for the changes in oral cancer incidence and oral cancer mortality such as the way people are using tobacco products and the advances in treating oral cancer. It should be noted that the most recent incidence and mortality statistics were derived from the 2007 data (2). The mortality rate of Blacks in Maryland peaked in 1983 at nine per 100,000 and reduced gradually to about 3.1 per 100,000 in 2007. The mortality rates for Maryland Whites also reduced, from 4.5 to 2.3 per 100,000, during the same period. However, the gap between Whites and Blacks remains in Maryland. Similar trends are seen at the national level. Given the first Maryland Comprehensive Cancer Control Plan started in 2004, we should be mindful in interpreting the potential contribution of this Plan to the reduction in oral cancer incidence and mortality. Recently released Maryland oral cancer statistics provides a warning sign and reveals the gradual increase in the proportion of oral cancers diagnosed at distant metastasis stage since 2004 (available at http://fha.maryland.gov/cancer/cancerplan/publications.cfm).

To make additional progress in addressing the Plan we need to invest in the following three areas:

- Build a research network, such as the Practice-Based Dental Research Network, to include major practitioners who provide oral cancer screening, diagnosis, and treatment and researchers who have expertise in conducing translational biology-based prevention and early detection investigations. This research network could provide an opportunity to develop and test novel oral cancer risk assessment tools and prevention strategies that reflect the evolving pathogenesis of these cancers. A good example is the recent increase of oropharyngeal cancer incidence in the country, which has been linked to human papilloma virus infection.
- Create policies to ensure a high-quality and sustainable provider network to serve the community. The policies should ensure that providers perform quality oral cancer screenings, are credentialed and certified, and are compensated for their service. A statewide database to link electronic patient diagnostic information, the cancer registry, provider services, and reimbursement data may help evaluate quality of providers in identifying early stage oral cancers.
- Training for student providers at all levels. At the University of Maryland School of Dentistry, we are enhancing our curriculum to allow our students to gain more knowledge in medicine and include an expanded overview of the pathogenesis of oral cancer and its diagnosis and prevention. Providing dental school faculty and dentists in the community with well-designed courses to gain new and refresh knowledge in the field oral cancer prevention and early detection also is necessary. In fact, a mandate to attend such courses for the providers as part of their relicensure may translate into a better work force in our fight to reduce oral cancer incidence and mortality for Marylanders.

Conflict of interest

The author declares no conflict of interest.

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2. National Cancer Institute. State cancer profiles. 2009. Latest Incidence Rates for United States: Oral Cavity & Pharynx, All Races (includes Hispanic), Both Sexes, All Ages (SEER Areas) 2007, (NPCR Areas) 2006. Available at: http://statecancerprofiles.cancer.gov/map/map.noimage.php.

Commentary on "Outcomes of oral cancer early detection and prevention statewide model in Maryland"

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The authors demonstrated that a multi-vectored approach to educating both the public and health professionals can create substantial changes in the outcomes of oral cancer in a statewide population. That benefits ensued from this effort is not surprising, but the degree and relative rapidity of the changes is striking. Although the percentage of patients who receive an oral cancer examination remains disturbingly low, the fact that the number has doubled from 20 percent to 40 percent of this population over a 12-year period creates reason to be encouraged that continued efforts will prove fruitful. The decline in oral cancer incidence and mortality in Maryland relative to other states is also a very positive outcome of this work; it suggests that the educational interventions implemented by the state worked.

The authors' goal of training other health professionals including dental hygienists, physicians, nurse practitioners, and physicians' assistants is a worthy one. Indeed, if we can learn from previous experiences, one effective way to get dentists to pay attention to an oral health need is to set up models wherein other health providers (denturists, dental hygienists, dental therapists, nurses, and physicians) are asked to develop the skills to deliver those services. It is reminiscent of an incisive editorial called "Do it or lose it," which was written by Meskin, the late, great editor of the Journal of the American Dental Association, who warned dentists that if they did not perform oral cancer examinations, others would fill the void (1).

In the future, given the difficulty of obtaining resources for preventive and interventional programs, it would be helpful if this team focused on the individual components of the interventions so that other states would know what component gives the greatest return on investment. For example, reference is made to the media, but it is not clear what media was used, or what impact it had on the outcomes. Similarly, given the severe resource constraints of the states, would it be better to focus on educating citizens to "push" them into the dental office for exams, or to focus on the dentist in the hopes of "pulling" patients into care? In closing, the most rapid change this reactor has seen in the dental profession in 40 years was the adoption of glove wearing by dentists subsequent to the AIDS epidemic. In 1 year, routine glove wearing among dentists went from less than 25 percent to about 95 percent primarily because of pressure from patients who told their dentists to start wearing gloves. This power of the patient should be harnessed for oral cancer diagnosis in the future and is a relevant strategy for all states as well as for national changes.

Conflict of interest

The author declares no conflict of interest.

Reference

1. Meskin L. Do it or lose it. *J Am Dent Assoc.* 1997;**128**:1058-60.