

Odontogenic Infections and A Pound of Prevention

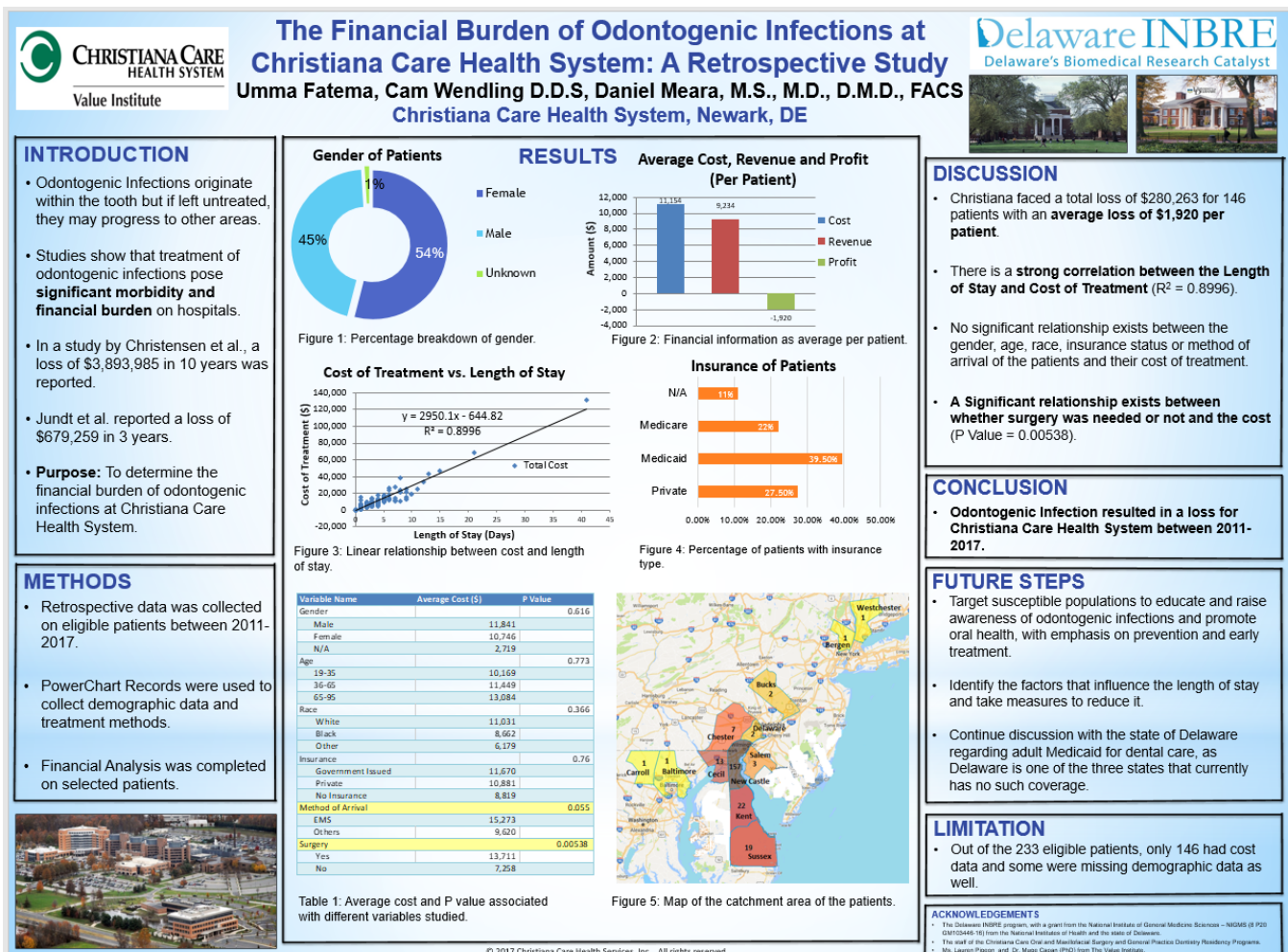
Daniel J. Meara, MS, MD, DMD, MHCDS, FACS

Chair, Department of Oral and Maxillofacial Surgery & Hospital Dentistry, ChristianaCare

The Problem

Oral health is essential for systemic health and overall well-being. However, odontogenic infections plaque the healthcare system, with estimates that the cost is over \$200 million dollars annually in the United States.¹ Further, almost all of these odontogenic infections are preventable when individuals have proper access and engagement in dental services. A 2018 Delaware IDeA Network of Biomedical Research Excellence (INBRE) study out of the Department of Oral and Maxillofacial Surgery and Hospital Dentistry, at Christiana Care Health System, noted that from 2011-2017 a total of 146 patients, with complete cost data, were treated for odontogenic infections, resulting in a total cost of care of over \$1.62 million dollars (Figure 1). Christiana Care Health System, with the state's only oral/maxillofacial surgery unit and as a tertiary referral center, treats about 33 cases per year at an average cost of over \$11,000 per patient. This number does not include data from the outpatient oral and maxillofacial surgery clinics or the hospital dentistry clinic, which routinely treats less severe odontogenic infections.

Figure 1. The Financial Burden of Odontogenic Infections at Christiana Care Health System.



This problem stems from the fact that approximately 25% of the US population (approximately 82

million Americans) have no dental insurance.² Moreover, vulnerable populations such as Medicaid eligible patients have limited state-based dental benefits. In Delaware, adults with Medicaid dental benefits have access to \$1000 per year, though another \$1500 can be available for ‘emergency’ care. Once the benefit limits have been reached, any future costs are out of pocket for the patient until the next benefit reset.

The Result

The result is a disconnect between oral and system health, which impacts the health of the individual as well as the health of the population. Simply, one cannot have true health without oral health being optimized.

Opportunities

Integration of oral health metrics and outcomes assessment into risk-based contracts will be an essential lever to drive change, make oral health a priority, and provide the financial structure for sustained and long-term success. Further, coordination of care, primary care in the dental office or dental care in the primary care office, and expanded team care with dental specialists embedded on teams dedicated to diabetic and cardiac patients much like is already done for cleft and oral cancer patients is needed.

In addition, social determinants of health greatly impact health, especially oral health. Limited transportation options, healthy food deserts, smoking and vaping shops on neighborhood street corners, and lack of oral health education are significant challenges for individuals and communities.

Prevention

The focus must be on moving away from access to care only when an acute issue arises, such as an odontogenic infection, to a system of care that prioritizes prevention of disease, maintenance of health and care based on what is best for the patient and not just on what is feasible from a financial standpoint.

Achieving Change

As was detailed in my 2018 DJPH article on oral health and achieving population health, we all must think differently to realize meaningful change. Ultimately, to drive change and for access and quality of oral healthcare to improve, silos must be removed, outcomes must be measured, incentives must align, innovation must be fostered, successes must be highlighted and insurance must be affordable. Health and the future of America depends on it!

Dr. Meara may be contacted at dmeara@christianacare.org.

References

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2. U.S. Department of Health and Human Services. (2000). Oral health in America: A report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health. <https://www.nidcr.nih.gov/sites/default/files/2017-10/hck1ocv.%40www.surgeon.fullrpt.pdf>

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