Evidence for Improved Systemic Outcomes in Type 2 Diabetics receiving Oral Care

#289579

Enihomo Obadan, BDS, MPH, *Oral Health Policy and Epidemiology, Harvard School of Dental Medicine, Boston, MA,*
Samantha Jordan, DMD, MPH, *Oral Health Policy and Epidemiology, Harvard School of Dental Medicine, Boston, MA,*
Mary Tavares, DMD MPH, *Oral Health Policy and Epidemiology, Harvard School of Dental Medicine, Boston, MA*

Background

- **Diabetes is a major global health problem** and the number of individuals with Type 2 diabetes is rapidly increasing
- **Glycemic control is key to managing diabetes** related systemic outcomes/ complications
- A **bidirectional relationship** between oral health and diabetes-related metabolic control has been suggested

Significance: If evidence for oral care driven improved systemic outcomes is demonstrated, **the dental workforce could be utilized to combat the diabetes epidemic**

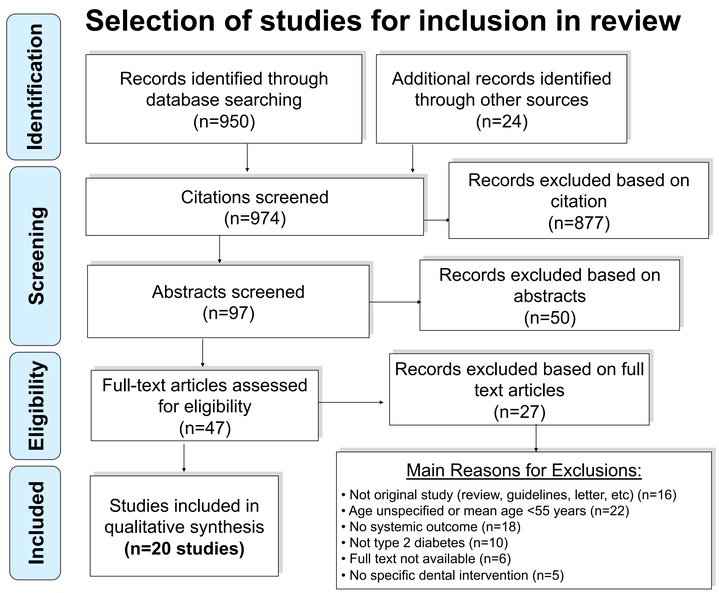
Objectives

1) **Identify and evaluate the scientific evidence** for improved glycemic control following periodontal therapy within the elderly population with type 2 diabetes
2) **Identify gaps** in the current body of such existing evidence

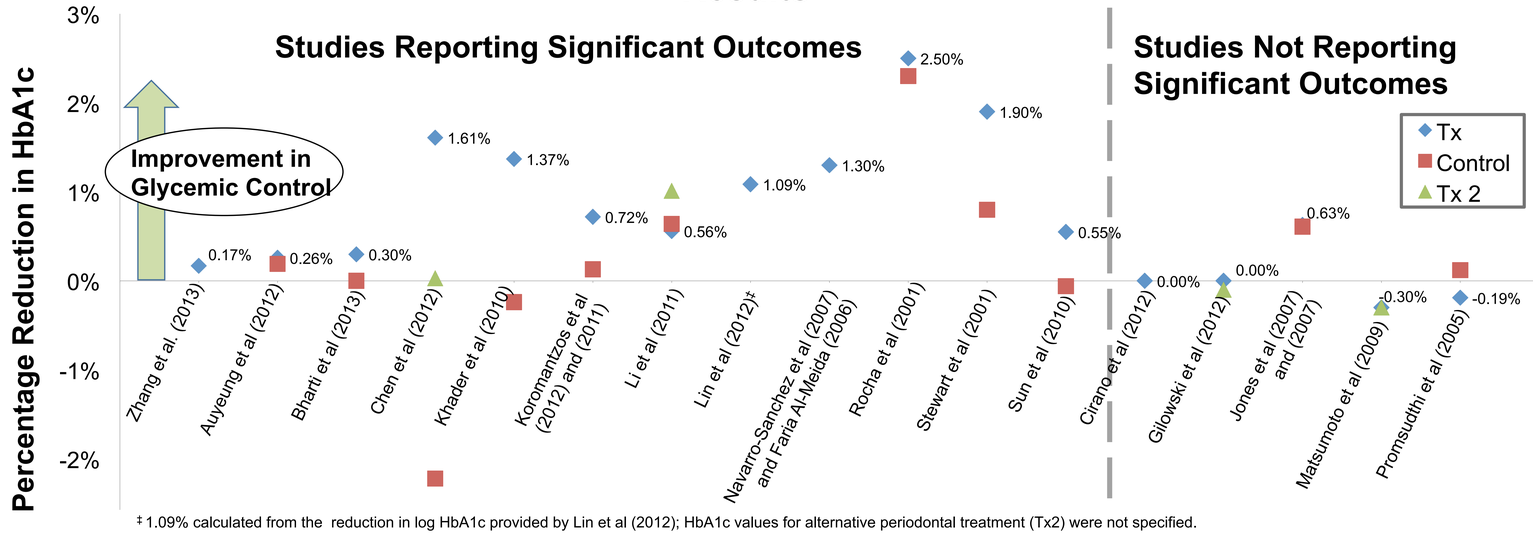
Methods

Searches of electronic databases (PubMed, Web of Science and EMBASE) were performed using keywords and terms obtained from previous systematic reviews as well as consultation with medical librarians and domain experts. The final electronic search date was May 30, 2013. Additional references were identified by hand searching bibliographies in relevant reports.

Selection of studies for inclusion in review



Results



‡ 1.09% calculated from the reduction in log HbA1c provided by Lin et al (2012); HbA1c values for alternative periodontal treatment (Tx2) were not specified.

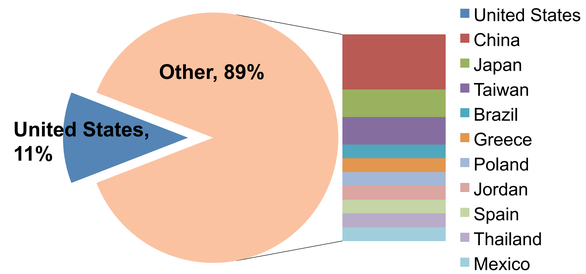
Conclusions:

There is **moderate evidence** currently available suggesting that oral care can lead to systemic health improvements in diabetics, most commonly measured by glycosylated hemoglobin (HbA1c). However, there is a paucity of research that focuses on older patients who comprise a large proportion of Type 2 diabetics. While oral care may be an effective intervention for the clinical management of diabetics, evidence may need to be stronger and include a broader population spectrum before becoming a treatment recommendation.

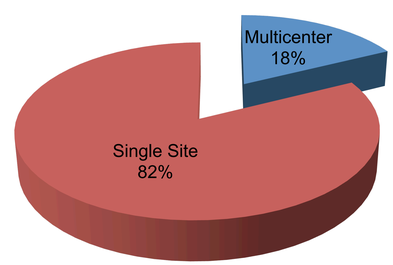
Gaps in the Literature:

- More studies focusing on older adults are needed
- More studies in the US are needed
- Efficacy/ Feasibility studies for periodontal therapy are needed
- Large, multi-centre clinical trials are needed
- Cost analyses are needed

Geographic Location of Included Studies



Most studies included were single site



Acknowledgements

Special thanks to Dr Wenche Borgnakke and Dr Robert Genco. This work was supported in part by the ADA's National Elder Care Advisory Committee (NECAC).