

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
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NAME Richard Niederman	POSITION TITLE Senior Member of the Staff		
eRA COMMONS USER NAME (credential, e.g., agency login) NIEDERMAN_RICHARD			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.</i>)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of California, Davis, CA	B.S.	06/68	Biology
Marine Biological Laboratory, Woods Hole, MA	Certificate	06/70	Embryology
University of California, Davis, CA	M.A.	06/71	Zoology
Harvard University, Boston, MA	D.M.D.	06/76	Dentistry
Harvard University, Boston, MA	Certificate	06/84	Periodontology
Oxford University, Oxford, UK	Certificate	05/97	Evidence-based Dent.
Marine Biological Laboratory, Woods Hole, MA	Certificate	02/03	Medical Informatics

A. Personal Statement

For more than 100 years dentists have successfully treated dental decay surgically with three metals: gold, silver, and stainless steel. Yet, for the last 50 years, we have known that dental decay is caused by Gram+ aerobic bacteria, a preventable infection.

I have now come to believe that evidence-based intervention programs demonstrating the achievement of health cares triple aim – increasing access, improving health, and reducing costs - are, perhaps, the only available mechanism to open the door for system-wide consideration of preventive dental care

The focus of my current work, therefore, is on programs delivering evidence-based preventive care. Preventive care, when compared to surgical care, in addition to achieving health care's triple aim, also better meets the Institute of Medicine's six quality aims than traditional care.

B. Positions and Honors.

Professional Positions:

1977 - 1979 *Instructor*, Harvard School of Dental Medicine, Boston, MA.
 1979 - 1982 *Research Associate*, V.A. Medical Center, West Roxbury, MA.
 1984 - 1986 *Staff Associate*, Forsyth Dental Center (now The Forsyth Institute), Boston, MA.
 1986 - 1989 *Assistant Member of the Staff*, Forsyth Dental Center Boston, MA.
 1986 - 1996 *Head, Department of Cell Biology*, Forsyth Dental Center, Boston, MA.
 1989 - 1996 *Associate Member of the Staff*, Forsyth Dental Center, Boston, MA.
 1989 - 1997 *Instructor, Periodontology*, Harvard School of Dental Medicine, Boston, MA.
 1993 - 1996 *Director of Clinical Research*, OmniGene Diagnostics, Cambridge, MA.
 1996 - 2000 *Vice President, Clinical Affairs*, PerioCare, Palo Alto, CA.
 1996 - 2001 *Senior Tutor*, Harvard School of Dental Medicine, Boston, MA.
 1997 - 2001 *Associate Research Investigator*, The Forsyth Institute, Boston, MA.
 1997 - 2001 *Assistant Professor, Periodontology*, Harvard School of Dental Medicine, Boston, MA.
 1998 - 2001 *Head, Office of Evidence-Based Dentistry*, Harvard School of Dental Med., Boston, MA.
 2000 - 2002 *Head, Office of Evidence-Based Dentistry*, The Forsyth Institute, Boston, MA.
 2001 - 2003 *Senior Research Investigator*, The Forsyth Institute, Boston, MA.
 2002 - *Director, Center for Evidence-Based Dentistry*, The Forsyth Institute, Boston, MA.
 2002 - *Associate Professor, Health Policy & Health Services Res.*, Boston University School of Dental Medicine, Boston, MA.
 2003 - 2005 *Associate Member of the Staff*, The Forsyth Institute, Boston, MA.
 2005 - *Senior Member of the Staff*, The Forsyth Institute, Boston, MA.

Awards and Other Professional Activities:

1976 D.M.D. Magna cum laude in a special field.
 1979 - 1982 Research Career Development Award, Veterans Administration.
 1998 James A. Shannon Director's Award, National Institute of Dental Research.
 1999 Course Director's Award, Evidence-Based Dentistry, Harvard School of Dental Medicine.
 2000 New Programs Award, American Association of Dental Schools.

2001 Distinguished Faculty Award, Harvard School of Dental Medicine.
2002 Oral Health Scholar Award, American Dental Trade Association/Santa Fe Group.
2006 Senior Specialist, Fulbright Scholars Program, US Department of State.
2007 Purpose Prize Fellow, Civic Ventures, San Francisco, CA.
2010 Scholar, National Institute on Minority Health and Health Disparities, Bethesda, MD.

C. Selected peer-reviewed publications (in chronological order).

Rosenblatt A, Stamford TCM, **Niederman R.** (2009) Silver diamine fluoride: A caries "silver-fluoride bullet". *J. Dent. Res.* **88**:116-125.*

Niederman R. (2009) Manual and electronic probes have similar reliability in the measurement of untreated periodontitis. *Evid. Based Dent.* **10**:39.

Niederman R. (2009) Evidence-based dentistry finds a new forum: Exelauno. *J. Am. Dent. Assoc.* **140**:272, 274.

Niederman R. (2010) Glass ionomer and resin-based fissure sealants - equally effective? *Evid. Based Dent.* **11**:10.

Niederman R. (2010) Periodontal treatment did not prevent complications of pregnancy. *Evid. Based Dent.* **11**:18-19.

Niederman R, Richards D. (2010) The challenge, access, risks, and deficits of evidence-based dentistry. *J. Am. Coll. Dent.* **77**:20-24.*

Niederman R, Clarkson J, Richards D. (2011) The affordable care act and evidence-based care. *J. Am. Dent. Assoc.* **142**:364-367.*

Pitts N, Amaechi B, **Niederman R,** Acevedo A-M, Vianna R, Ganss C, Ismail A, Honkala E. (2011) Global oral health inequalities: Dental caries task group-Research Agenda. *Adv. Dent. Res.* **23**:211-220.*

Niederman R. (2011) Casual association between smoking and tooth loss is highly likely. *Evid. Based Dent.* **12**:77.

Niederman R. (2011) Are lasers as effective as scaling for chronic periodontitis? *Evid. Based Dent.* **12**:80-81.*

Niederman R, Richards D. (2011) What is evidence-based dentistry, and do oral infections increase systemic morbidity or mortality? *Oral Maxillofac. Surg. Clin. North Am.* **23**:491-496.*

Tilson JK, Kaplan SL, Harris JL, Hutchinson A, Ilic D, **Niederman R,** Potomkova J, Zwolsman SE. (2011) Sicily statement on classification and development of evidence-based practice learning assessment tools. *BMC Med. Educ.* **5**:11:78. PMID: PMC3221624

Niederman R. Dental Caries. In: Loue S, Sajatovic M. (eds). *Encyclopedia of Immigrant Health, Vol. 1*, pp. 532-535. Springer. July 31, 2012.

Niederman R, Richards D, Brands W. (2012) The changing standard of care. *J. Am. Dent. Assoc.* **143**:434-437. NIHMMSID: NIHMS454329

Niederman R, Weyant R. (2012) Periodontal disease, cardiovascular disease, the American Heart Association, the American Academy of Periodontology, and the rooster syndrome. Editorial. *Evid. Based Dent.* **13**:34-36.

San Martin L, Castaño A, Bravo M, Tavares M, **Niederman R,** Ogunbodede EO. (2013) Dental sealant knowledge, opinion, values and practice of Spanish dentists. *BMC Oral Health.* **13**:12. PMID: PMC3584843.

Book Chapter:

Niederman R. Childhood Caries and Immigrant Oral Health. In, *Encyclopedia of Immigrant Health*, Loue S, Sajatovic M eds., Springer (in press).

Book:

Richards D, Matthews D, Clarkson J, **Niederman R.** (2008) *Evidence-Based Dentistry.* Quintessence.

D. Research Support.

Ongoing Research Support

5 R34-DE022272-02 Niederman, Efrid, Valente, Nigg (Multiple PIs) 09/15/11 - 08/31/13
NIH;NIDCR

Integrating Social, Behavioral & Preventive Sciences to Reduce Children's Caries

The Specific Aims are: 1) Develop a Manual of Procedures (MOPs) to carry out social network analysis, targeted behavior change, dental examination and prevention, and impact assessment. 2) Conduct a pilot study to implement the study protocol and to generate preliminary impact assessments. 3) Prepare a full U01 application for a large clinical study of the effect of behavioral intervention on oral health of at-risk children.

Role: PI

5 U24-MD006964-02 Niederman (PI)

09/19/11 - 05/31/16

NIH;NIHMD

Effectiveness and Improvement of Rural, School-based, Caries Prevention Programs

The Specific Aims are to: 1) Develop a Manual of Procedures (MOPs), implement calibrated caries diagnosis to compare outcomes from participating programs and introduce electronic dental records. 2) Use outcome measures to identify clinically and cost-effective preventive interventions and optimize care. 3) Establish a database of prevention and outcomes to facilitate modeling and implementation.

Role: PI

Completed Research Support

Bingham Trust Niederman (PI)

07/01/05 - 06/30/10

ForsythKids

This project tested exportation and evaluation of a culturally competent, elementary school-based model for providing comprehensive caries prevention to children in 12 underserved MA schools.

Role: PI

Colgate-Forsyth Center for Global Oral Health Niederman (PI) 09/01/09 - 08/31/10

The Association of Periodontal Disease and Obesity in Children

To test the hypothesis, we will execute a cross sectional study of children's BMI for age percentile and periodontal diseases.

Role: PI

Commonwealth of Massachusetts Niederman (PI)

06/01/04 - 05/30/09

ForsythKids

This project tested exportation and evaluation of a culturally competent, elementary school-based model for providing comprehensive caries prevention to children in 12 underserved MA schools.

Role: PI