ARIC Manuscript Proposal # 1353

PC Reviewed: __03/18/08__   Status: __A__   Priority: __2__
SC Reviewed: _____   Status: _____   Priority: ____

1.a. Full Title:
Third Molars and Oral Health in a group of Middle-Aged Americans

  b. Abbreviated Title (Length 26 characters):
3rd molars & Oral Health

2. Writing Group:
    Writing group members:
White RP Jr, Moss KL, Beck JD, Offenbacher S, Oh ES, Fisher EL,

I, the first author, confirm that all the coauthors have given their approval for this manuscript proposal. _____ **[please confirm with your initials electronically or in writing]**
RPW, JDB,

   F**irst author**: **Raymond P White, Jr DDS, PhD**
    Address: Oral and Maxillofacial Surgery
          UNC School of Dentistry
          Chapel Hill, NC 27499-7450
          Phone: 9-9-966-1126   Fax: 919-966-6019
          E-mail: ray_white@dentistry.unc.edu

Corresponding/senior author (must be an ARIC investigator for the proposal but can be different in the published paper; correspondence will be sent to both the first author & the corresponding author): James Beck PhD
    Address: Dental Research CB#
          UNC School of Dentistry
          Chapel Hill, NC 27499-7455

          Phone: 919-966-1538 Fax: 919-966-3683
          E-mail: james_beck@unc.edu

3. Timeline: Data analyses completed by 4/15/08, manuscript completed by 5/1/08 for submission to ARIC publications committee.

4. Rationale: Most periodontal studies do not collect data on 3rd molars. Consequently there is almost no information from population-based studies on the periodontal status of 3rd molars so even descriptive data would be new information.

5. **Main Hypothesis/Study Questions**:
   a) Document presence/absence of 3rd molars in this middle-aged population.
   b) Assess the prevalence of periodontal pathology and
      coronal caries in visible 3rd molars.
   c) Assess the association between 3rd molar periodontal pathology/caries and
      non-3rd molar periodontal pathology/caries on individuals with at least
      one third molar present.

6. Design and analysis (study design, inclusion/exclusion, outcome and other variables of interest with specific reference to the time of their collection, summary of data analysis, and any anticipated methodologic limitations or challenges if present). Cross-sectional study using visit 4 dental and ARIC demographic data.

Explanatory variables: having a visible 3rd molar
Confounding variables: Gender, age, ethnicity, education, income, tobacco use
Outcome variables: % of sites with CAL≥3mm; % of sites with PD≥4mm , Number of decayed, missing, and filled permanent teeth

For study question:
a) Descriptive statistics will be used to describe differences in periodontal and caries status according to sociodemographic characteristics and tobacco use.
b) Differences in prevalence of periodontal disease and coronal caries in people with and without 3rd molars will be tested using chi-square and t-tests. In addition, these differences will be tested adjusting for relevant confounder using logistic regression for prevalence estimates and general linear models for adjusted estimates of mean scores.
c) In individuals with at least one 3rd molar present, the association between periodontal disease in 3rd molars and non-third molars will be determined adjusting for clustering of observations. Similar analyses will be completed for coronal caries.

7.a. Will the data be used for non-CVD analysis in this manuscript? Yes ___X_ No

   b. If Yes, is the author aware that the file ICTDER03 must be used to exclude persons with a value RES_OTH = "CVD Research" for non-DNA analysis, and for DNA analysis RES_DNA = "CVD Research" would be used? ____ Yes __x__ No
   (This file ICTDER03 has been distributed to ARIC PIs, and contains
   the responses to consent updates related to stored sample use for research.)

8.a. Will the DNA data be used in this manuscript? ____ Yes __X__ No

8.b. If yes, is the author aware that either DNA data distributed by the Coordinating Center must be used, or the file ICTDER03 must be used to exclude those with value RES_DNA = "No use/storage DNA"?
   ____ Yes ____ No

9.The lead author of this manuscript proposal has reviewed the list of existing ARIC Study manuscript proposals and has found no overlap between this proposal and previously approved manuscript proposals either published or still in active status. ARIC Investigators have access to the publications lists under the Study Members Area of the web site at: http://www.cscc.unc.edu/ARIC/search.php

___X___ Yes   _____ No

10. What are the most related manuscript proposals in ARIC (authors are encouraged to contact lead authors of these proposals for comments on the new proposal or collaboration)?
Drs Beck and Offenbacher collaborate on this manuscript.

11. a. Is this manuscript proposal associated with any ARIC ancillary studies or use any ancillary study data?   __X__ Yes   _ ___ No

11.b. If yes, is the proposal
    __X_   A. primarily the result of an ancillary study (list number* 1996-01)
    ___   B. primarily based on ARIC data with ancillary data playing a minor role (usually control variables; list number(s)* _____ _____
    _____)

*ancillary studies are listed by number at http://www.cscc.unc.edu/aric/forms/

12. Manuscript preparation is expected to be completed in one to three years. If a manuscript is not submitted for ARIC review at the end of the 3-years from the date of the approval, the manuscript proposal will expire.