1. **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,

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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.