

ARIC Manuscript Proposal # 900

PC Reviewed: 07/16/02
SC Reviewed: 07/19/02

Status: A
Status: A

Priority: 3
Priority: 3

1.a. Full Title: Is height related to incident diabetes mellitus? The ARIC study

b. Abbreviated Title (Length 26 characters): Height and incidence of diabetes

2. Writing Group (list individual with lead responsibility first): Shimon Weitzman, Chin-Hua Wang, James Pankow, Maria Schmidt, Fred Brancati

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3. Timeline: First draft expected mid October 2002

4. Rationale: Short stature has been described in relation with gestational diabetes in Brazil (Branchtein L, Schmidt M, et al, *Diabetologia* 43:848-51, 2000) and in women of European and South Asian origin living in the UK (Kousta E, Lawrence NJ et al, *Diabetic Medicine* 17:792-7, 2000). To the best of our knowledge there are no literature reports of longitudinal studies addressing height as a risk factor for the development of diabetes in adulthood in various race-gender groups. The ARIC cohort provides baseline information on demographic, anthropologic, nutritional and socio-economic variables on race-gender specific groups of the population. Fasting blood glucose levels can be used according to the ADA new recommendations (Normal <100 mg/dl, Impaired Fasting Glucose (IFG) 100-125), in order to describe the risk of developing diabetes during the study follow-up period in relation to the baseline blood glucose values, considering height as an independent variable.

5. Main Hypothesis/Study Questions: 1) There is an inverse relationship between standing height in visit 1 and the risk of developing diabetes during follow-up. 2) There are race-gender differences in the risk of developing diabetes in relation to height

6. Data (variables, time window, source, inclusions/exclusions): Baseline age, gender, race, education level, occupation, level of physical activity, standing height, weight, weight at age 25, (DTAIA 101), birthweight (SES8A-C), leg length (standing height minus stool height), WHR, family history of diabetes, total calories energy, and percent of total fat in the diet, cigarette smoking and alcohol consumption, prevalent hypertension and CHD. Some basic biochemical variables will be included (fasting blood glucose, total cholesterol, triglycerides, HDL-C, LDL-C, insulin and uric acid). All of which may be related to glucose intolerance.

Exclusions: Subjects with prevalent DM at baseline, RES_OTH="CVD Research", non-blacks/whites, or non-whites in Minnesota and Washington County.

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

b. If Yes, is the author aware that the file ICTDER02 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 ☐ No
(This file ICTDER02 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 ☒ No

8.b. If yes, is the author aware that either DNA data distributed by the Coordinating Center must be used, or the file ICTDER02 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://bios.unc.edu/units/csc/ARIC/stdy/studymem.html>

☒ Yes ☐ No