

## Urban Youth Rarely Screened For CVD, Even When Overweight

*More than a quarter of the children turned out to be positive for hypertension, diabetes, or dyslipidemia.*

BY ROBERT FINN  
San Francisco Bureau

SAN FRANCISCO — Children aged 10-19 years in Boston were unlikely to be screened for cardiovascular disease risk factors even if they were overweight, according to a large retrospective chart review.

Of 11,081 children, 33% had no family history recorded in their charts. Of the children with any recorded family history, only 46% had a specific mention of the absence or presence of at least one cardiovascular risk factor in any family member, Dr. Shika G. Anand and Dr. William G. Adams of Boston University reported in a poster presentation at the annual meeting of the Pediatric Academic Societies.

Although more than 95% of the children were screened for hypertension, much smaller percentages were screened for dyslipidemia or abnormal glucose metabolism, even among those who were overweight.

The investigators defined children with a body mass index (BMI) greater than the 95th percentile as being overweight, and children between the 85th and 95th percentile as being at risk for overweight.

Among the 2,795 overweight children, 95% were screened for hypertension, 44% were

screened for dyslipidemia, and 36% were screened for abnormal glucose metabolism.

Among the 1,957 children at risk for overweight, 94% were screened for hypertension, 33% were screened for dyslipidemia, and 20% were screened for abnormal glucose metabolism. Overall, 26% of the 10,617 children screened turned out to be positive for hypertension, diabetes, or dyslipidemia.

Subjects in the study included all children aged 10-19 years with at least one primary care visit to Boston Medical Center and at least one recorded BMI during a 2-year period from 2002 to 2004. Pregnant patients were excluded. Of the full sample, 52% were female, 59% were African American, 15% were Hispanic, 6% were white, 2% were Asian American, 1% were Native American, and 17% had an undetermined or other racial classification.

The investigators concluded that there was significant room for improvement in screening for cardiovascular risk factors in pediatric primary care, and that improved screening could be expected to identify a substantial number of overweight children at especially high cardiovascular risk.

The meeting was sponsored by the American Pediatric Society, Society for Pediatric Research, Ambulatory Pediatric Association, and American Academy of Pediatrics. ■

## Fiber Intake Predicts CV Disease Risk in Teens

SAN FRANCISCO — The amount of plant food adolescents eat is a better predictor of cardiovascular risk than is their intake of cholesterol or saturated fat, according to a poster presentation by Dr. Karen A. Ortiz at the annual meeting of the Pediatric Academic Societies.

Using data from 2,128 adolescents aged 12-19 years, taken from the National Health and Nutrition Examination Survey, Dr. Ortiz, who was then at the University of Utah, Salt Lake City, and her colleagues determined that the amount of plant food the adolescents recalled eating within the previous 24 hours was significantly inversely correlated with the presence of the metabolic syndrome. For each quintile increase in that index, there was a statistically significant decrease of 20% in the prevalence of metabolic syndrome.

The amount of cholesterol and saturated fat in the dietary recall showed no significant correlation with the metabolic syndrome or its component risk factors. ■

On the basis of dietary recall, Dr. Ortiz, now a pediatrician in private practice in Santa Fe, N.M., calculated a plant-based food index (grams of fiber per 1,000 kcal), a saturated fat index (grams of saturated fat per 1,000 kcal), and a cholesterol index (grams of cholesterol per 1,000 kcal).

The presence of metabolic syndrome was defined as abnormalities in any three of five domains: triglycerides, HDL cholesterol, waist circumference, fasting glucose levels, and blood pressure. Metabolic syndrome was present in 7% of the teens.

None of the dietary indices was associated with levels of homocysteine, C-reactive protein, or hemoglobin A<sub>1c</sub>. All analyses in the logistic regression were adjusted for gender, age, ethnicity, family income, and other nutrient indices.

The meeting was sponsored by the American Pediatric Society, Society for Pediatric Research, Ambulatory Pediatric Association, and American Academy of Pediatrics.

—Robert Finn

## Subclinical Atherosclerosis Seen in Inflammatory Arthritis

BY NANCY WALSH  
New York Bureau

GLASGOW, SCOTLAND — Subclinical atherosclerosis is common among patients early in the course of inflammatory polyarthritis, even among those not considered to be otherwise at high risk for cardiovascular disease, Diane K. Bunn reported at the annual meeting of the British Society for Rheumatology.

Increased awareness of the excess mortality—primarily from cardiac causes—associated with rheumatoid and undifferentiated arthritis prompted institution of the Norfolk Arthritis Register, a primary-care-based inception cohort of patients with inflammatory polyarthritis, according to Ms. Bunn of Norfolk and Norwich (England) University Hospital.

The register now has enrolled 93 patients, 61 of whom are female. On recruitment, patients underwent baseline assessments of medication history and comorbidities. A cardiac risk profile that includes measurement of fasting lipids and glucose, blood pressure, height, and weight also was performed.

In addition, patients underwent a duplex ultrasound examination of the carotid arteries using a B-mode Doppler.

Median age of the cohort was 50 years, and median disease duration at presentation was 7 months. On recruitment, 56 (60%) were taking disease-modifying an-

tirheumatic drugs, and 59 (63%) were taking NSAIDs. Among this latter group, 12 were being treated with coxibs and the remainder with traditional nonsteroidals.

Blood pressure was 140/90 or higher in 31 (33%), but only 7 were taking antihypertensive medication. Fasting cholesterol was 5.1 mmol or more in 44 (47%), yet only 3 (2 of whom were known diabetics) were taking a statin drug, she wrote in a poster session. A total of 16 (17.2%) were smokers.

Cardiovascular risk, calculated using the Joint British Societies Cardiac Risk Assessor ([www.bnf.org/BNF/extra/current/450024.htm](http://www.bnf.org/BNF/extra/current/450024.htm)) was 15% or greater (indicating high risk) in only 6 (6.5%) patients, but carotid plaque was present in 45 (48%). A single plaque was identified in 16 (17%), and two or more plaques were found in 29 (31%). In addition, one patient had complete stenosis of the right internal carotid artery, Ms. Bunn noted.

The finding that a large proportion of the cohort had subclinical atherosclerosis early in their disease highlights the importance of considering cardiovascular risk right from the start in patients with inflammatory polyarthritis, she concluded.

“Further follow-up of this cohort will help quantify atheroma progression and, in particular, how inflammation, metabolic factors, and therapy contribute to the process in early inflammatory polyarthritis,” she wrote. ■

## Pregnancy Complications May Flag Premature Coronary Artery Disease

BY BRUCE JANCIN  
Denver Bureau

ATLANTA — Consider pregnancy complications to be a red flag for premature coronary artery disease, Dr. Mimi S. Biswas said at the annual meeting of the American College of Cardiology.

She presented a retrospective cohort study involving 415 women who were evaluated for suspected CAD at Duke University, Durham, N.C., and who earlier had pregnancies managed at Duke.

Two hundred and fourteen of the women had experienced pregnancy complications, most commonly gestational diabetes mellitus, preeclampsia, preterm birth, or small or large for gestational age. Thirty-five percent of women with a history of pregnancy complications had significant CAD at coronary angiography, compared with 24% without such a history.

In a multivariate analysis, any form of pregnancy complication was associated with a 1.6-fold increased risk of significant CAD at angiography and a 2.3-fold increased risk of cardiac mortality. Other predictors of significant CAD were hyperlipidemia, diabetes, smoking during pregnancy, and being white as opposed to black, said Dr. Biswas, clinical director the Women's Heart Care Clinic at the university.

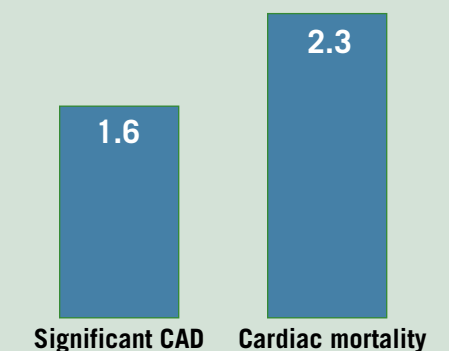
Median age at delivery in this study was 28 years. Median age at cardiac

catheterization was 41 years; among the 10% of women who died, the median age was 42. Median age at the time of first MI was 43 years.

In future studies, Dr. Biswas said, the interdisciplinary Duke team plans to delve into the mechanisms underlying the observed association between pregnancy complications and premature CAD, focusing on thrombotic abnormalities, coagulopathies, hormonal changes, vascular alterations, and genetic profiling.

The investigators are also interested in seeing if aggressive primary prevention efforts beginning immediately after a complicated pregnancy reduce the risk of premature CAD. ■

### Relative Risk of CAD Increases With Pregnancy Complications



Note: Based on a study of 415 women.  
Source: Dr. Biswas