

sources of variation in the rural experience in Brazil and forces a reconsideration of "rural nutrition" as a unified concept.

#### **P: 4**

The implications of varying degrees of market integration on blood pressure, glucose, cholesterol, and triglyceride levels in an indigenous lowland Ecuadorian population. MA Liebert<sup>1,2</sup>, JJ Snodgrass<sup>1,2</sup>, AD Blackwell<sup>1,2</sup>, FC Madimenos<sup>1,2</sup>, LS Sugiyama<sup>1,2,3</sup>. <sup>1</sup>Department of Anthropology; <sup>2</sup>Institute of Cognitive and Decision Sciences, University of Oregon, Eugene, Oregon; <sup>3</sup>Center for Evolutionary Psychology, University of California, Santa Barbara, California.

Increasing market integration can lead to changes in diet, as well as economic and social stresses that increase risk of obesity, cardiovascular disease, and Type 2 diabetes. Shuar, an indigenous neo-tropical population from the Amazonian region of Ecuador, are experiencing a wide range of market integration, which provides an important opportunity for examining the relationship between market integration and individual health status. Traditionally, Shuar economy was based on hunting, fishing, and horticulture. Although some Shuar in remote areas east of the Cordillera de Cutucu continue to subsist primarily as forager-horticulturalists, most Shuar now purchase a range of market items, some foods, and include some degree of agro-pastoralism in their productive activities. In the present study, we examine the association between measures of market integration (household food frequency, economic, and lifestyle measures) and several measures of cardiovascular and metabolic health. We collected anthropometric, health [fasting glucose, full lipid panel (LDL, HDL, total cholesterol, and triglycerides), blood pressure], and market integration data from 150 Shuar adults. Factor analysis was used to reduce measures of market integration, which we compare between remote communities and those close to town. Multiple regressions and discriminant analysis were then used to test the association between market factors and health measures, while controlling for other factors (e.g., age and sex). Results highlight the complex relationships between health measures, market integration, and diet under particular conditions. For example, in this case, the relationship between market integration and lipid profiles is complicated by high fish consumption in remote villages.

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#### **P: 48**

Milk or dairy intake has no impact on birth outcome in a rural and urban cohort from Pune, India. HG Lubree<sup>1</sup>, AS Wiley<sup>2</sup>, SM Joshi<sup>1</sup>, LV Ramdas<sup>1</sup>, AA Ganpule<sup>1</sup>, NV Thuse<sup>1</sup>, VU Despande<sup>1</sup>, CS Yajnik<sup>1</sup>. <sup>1</sup>KEM Hospital, Diabetes Unit, Pune, India; <sup>2</sup>Department of Anthropology, Indiana University, Bloomington, Indiana.

Pregnant women are recommended to increase their intake of milk and/or dairy products to provide essential nutrients to meet fetal needs for growth. There has been little research on the effects of milk or dairy intake on neonatal anthropometric indices. In India, milk and dairy product consumption is widespread, but at low per capita intakes, and this study tests the hypothesis that women who consumed more milk or more dairy products had larger neonates (assessed through birth weight, length, abdominal circumference, and skinfolds) than those who consumed less. A cohort of 173 women (82 rural and 91 urban) with complete maternal demographic, anthropometric, and dietary intake data and their neonates, who were assessed anthropometrically at birth, were analyzed. Milk and dairy intake were assessed from a food frequency questionnaire and scaled to frequency per day; total macronutrient intake was derived from 24-h recalls at 28 and 34 weeks. At 28 and 34 weeks, milk and milk product consumption frequency were positively associated with urban residence, standard of living index (SLI), maternal weight, and protein intake but not parity. Only milk was associated with total energy intake. After controlling for maternal height, parity, gestational age, rural/urban residence, SLI, and total calorie intake, milk intake frequency was not related to birth weight, length, sum of skinfolds, ponderal index, or abdominal circumference. A similar pattern was observed for dairy product intake. Neither milk nor dairy product frequency was associated with any measure of birth outcome in a non-energy adjusted model.

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#### **P: 62**

Traditional birth attendants' insights and biomedical risk: Modeling experience with childbirth complications. FG Lynch, CL Patil, ET Abrams. Department of Anthropology, University of Illinois, Chicago.

Of the 500,000 maternal deaths world-wide each year, 99% occur in the poorest nations (Ronsmans, 2006). To address this disparity, the United Nations Millennium Development Goal #5 aims to reduce maternal mortality rates (MMR) by 75% by 2015, in part by increasing the number of births with skilled attendants. In Tanzania, the MMR has, in fact, increased from 770 to 1,500 per 100,000 live births between 1990 and 2004 (UNFPA, 2005), perhaps because the percentage of deliveries with skilled attendants dropped from 60 to 46% in this period. In addition, Tanzania is burdened by a serious deficit of health practitioners; the ratios of nurse/midwives and obstetricians to the general population are poor (1:4,000 and 1:400,000, respectively). More than half (55%) of the women who deliver at home are attended by traditional birth attendants (TBAs), typically non-biomedically-trained community-based maternal care providers (DHS 2005). The major risk of delivering outside of a health center or with an untrained TBA is complications. TBAs have encountered and are probably quite competent at attending to common complications, but the likelihood of experience with rare adverse events is low. Using interviews with TBAs in the Manyara region of Tanzania, coupled with biomedical incidence data, we model the likelihood