

index was 4.36. Gini index was -0.12, with concentration of mortality in poorest departments [MO2]. Unmet needs were linearly related to CVD mortality in both analysis (1: $r=-0.54$, 2: $r=0.35$). Conclusions: This is the first report quantifying the extent of inequalities in Argentina's cardiovascular disease mortality. Although mortality has decreased in the last few years, socioeconomic gradients in cvd mortality are still important across Argentina. These findings highlight that Argentina (as many middle income countries) need to control CVD avoiding interventions that might increase inequalities. The extent of Argentina's social inequalities in CVD suggest that further improvements in CVD mortality at population level can not be achieved without reducing social inequalities through improving social determinants of health with inclusive policies.

P208

The Coronary Artery Risk Detection in Appalachian Communities Project

Christa Ice, Emily Murphy, Lesley Cottrell, William Neal, West Virginia Univ, Morgantown, WV

Background. Developed in 1998, the Coronary Artery Risk Detection in Appalachian Communities (CARDIAC) project was designed to combat the unacceptably high prevalence of heart disease and related CVD risk factors in West Virginia (WV). CARDIAC provides BMI screening for many WV school-aged children, and conducts fasting lipid profiles (FLPs) to assess other cardiovascular risk factors in fifth grade children. This project also currently assists in supporting the state of West Virginia's HB 2816 (2005), which, among other provisions, requires body mass index screening in all WV public schools. The CARDIAC project will have screened over 100,000 children by the end of this current school year. The purpose of this abstract is to provide an overview of the project along with a summary of the screening data from the last 11 years. **Methods.** To date, CARDIAC has screened 93,949 children for BMI status. Trained health professionals and health science students screened children within the school setting. In addition to BMI, fifth and ninth grade students received a comprehensive CVD risk screening that included, resting diastolic blood pressure (DBP) and systolic blood pressure (SBP), presence of acanthosis nigricans (AN), and (for only fifth and some ninth grade students) a fasting lipid profile (FLP) which included total cholesterol (TC), high-density lipoproteins (HDL-C), low-density lipoproteins (LDL-C), and triglycerides (TRIG). When AN was present, blood glucose and insulin levels were measured. **Results.** 60,028 fifth grade, 13,395 kindergarten, 19,403 second grade and 1,123 ninth grade students were screened over the past 11 years. Fifth grade participation spans all 11 years. Of these fifth grade children, 18.9% were overweight and 28.7% were obese; 21.3% were hypertensive; 5.6% had AN, 27.8% had an abnormal lipid profile. Of the children with AN, 49% fulfilled criteria for metabolic syndrome when defined as having HOMA > 3.0, BMI > 85%, and one other cardiovascular risk factor. 15.8% had self-reported asthma. Kindergarten screening started in 2003. Of these participants, 15.9% were overweight and 17.9% were obese. Similarly, second grade screening started in 2005. Of the second grade participants, 16% were overweight and 22.1% were obese. Finally of the ninth grade participants, 18.7% were overweight, 24.6% were obese, 6.8% had AN and 19.4% had an abnormal lipid profile. Further results include breakdown by year for each grade. **Conclusions.** The CARDIAC project has provided valuable epidemiological evidence of early risk for cardiovascular disease, diabetes, and asthma in WV, thus setting the stage for population-based and individualized intervention strategies.

P209

Introducing Healthy Eating and Activity Programs in Child-Care Settings: Early Results from 2 Curricula

Stephen Cook, Univ of Rochester, Rochester, NY; Marjorie Allan, Lauri Brugger, Dirk Hightower, The Children's Inst, Rochester, NY

Introduction: Childhood obesity sets the stage for early onset cardio-metabolic diseases and later adult cardiovascular disease. In recognition of the importance of preventing or limiting childhood overweight (OW) and obesity (OB), a community wide strategic plan was developed for the Greater Rochester area. A childcare initiative was developed to deliver 2 curricula aimed at childhood obesity prevention. Both curricula focus on introducing healthy eating habits and regular physical activity for children ages 3-5 in the childcare setting. This project compared the Dept of Health funded program, Eat Well/Play (EWPH) to the NHLBI developed intervention, Hip Hop to Health Jr. (HHH). **Objective:** To report early findings from obesity-prevention programs targeting 3-5 year olds and delivered in their childcare settings. **Hypothesis:** Providing training to childcare providers to deliver healthy eating and exercise curriculum to 3-5 year old children will reduce or prevent BMI increases that indicate OW and OB. **Methods:** Childcare Centers and Group Family Childcare settings were recruited to receive training in the delivery of EWPH or HHH. Curriculum specialists presented 14-weeks of lessons to the participating 3-5 year old children and their childcare providers. Lessons covered nutrition, food preparation, reduction of fats and sugary beverages, and included age-appropriate physical activities at each lesson. Children had height and weight measured prior to the intervention and at post-intervention follow up. Physical activity was measured with pedometers. Body mass index (BMI) was computed and compared (pre vs. post), as was number of steps. The change in proportion of children classified as normal, overweight or obese was also noted. Paired t-tests were used to compare pre- and post-intervention measures. **Results:** 753 children participated in the first year of the program. Complete data (pre/post) is available for 547. Average age 48.50 months (sd = 9.7). Number of steps increased from 3756.4 to 4169.4 at follow up ($p=0.025$). CDC percentiles classified

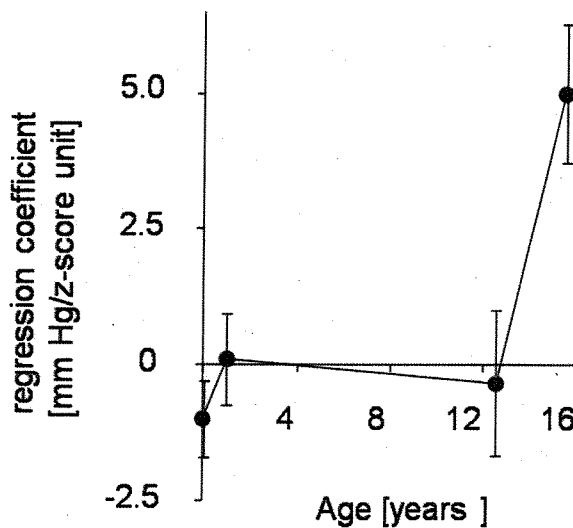
children as normal, overweight, or obese, 73% were classified as 'normal' weight at pre vs. 75% at post. At pre, 12% were overweight and 13% were obese. These rates were 11% and 12% post-participation respectively. The BMI z-score for EWPH increased from 0.08 to 0.15, while it decreased for HHH, 0.45 to 0.39, ($p=0.001$). **Conclusion:** During the first year of program implementation, a short-term (14 week) nutrition and exercise curriculum delivered to 3-5 year olds in their childcare settings coincided with modest reduction in BMI from pre- to post-participation. Children also increased their physical activity levels. More children fell within normal BMI ranges following participation in the program. Additional follow-up will allow measurement of long-term outcomes and may support policy changes for daycare in NY.


P210

Association Between Growth and Blood Pressure During the Life Course in Children and Adolescents

Arnaud Chiolerio, Gilles Paradis, McGill Univ, Montreal, QC, Canada; Georges Madeleine, Ministry of Health and Social Development, Victoria, Seychelles; Fred Paccaud, Inst of Social and Preventive Med, Univ Hosp Ctr, and Univ of Lausanne, Lausanne, Switzerland; Pascal Bovet, Ministry of Health and Social Development, Victoria, Seychelles

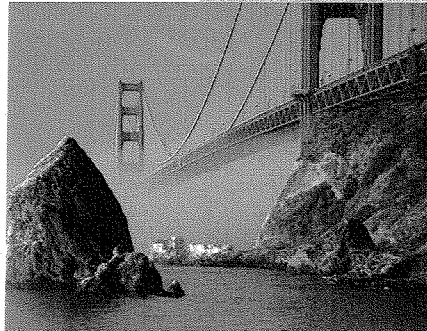
Background: Little is known on the relative importance of growth at different periods between birth and adolescence on blood pressure (BP). **Objective:** To assess the association between birth weight, change in body weight (growth) and BP across the entire span of childhood and adolescence. **Methods:** School-based surveys were conducted annually between 1998 and 2006 among all children in four school grades (kindergarten, 4th, 7th, and 10th year of compulsory school) in the Seychelles, Indian Ocean. Height and weight and BP were measured. Three cohorts of children examined twice were analyzed: 1606 children surveyed at age 5.5 and 9.1, 2557 at age 9.2 and 12.5, and 2065 at age 12.5 and 15.5, respectively. Weights at birth and at one year were extracted from medical files. Weights were expressed as Z-scores and growth was defined as a change in weight Z-scores (corresponding to weight centile crossing). The association between BP (at age 5.5, 9.2, 12.5, and 15.5) and weight at different times was assessed by linear regression. Using results of regression models of BP on all successive weights, life course plots were drawn by plotting regression coefficients against age at which weight was measured. The figure shows a life course plot of systolic BP in boys aged 15.5. **Results:** Without adjustment for current weight (at the time of BP measurement), birth weight was not associated with current BP, irrespective of age, excepted for girls at age 15.5 for whom a modest positive association was found. When adjusted for current weight, birth weight was negatively and modestly associated with current BP. BP was strongly associated with current weight, irrespective of age. Life course plots showed that BP was strongly associated with growth during the few preceding years but not with growth during earlier years, except for growth during the first year of life which tended to be associated with systolic BP. **Conclusions:** Our findings suggest that BP during childhood and adolescence is mainly determined by current body weight and recent growth.



American Heart
Association 
Learn and Live

EPI|NPAM
2|10

Final Program and Abstracts



*Join the Council on Epidemiology and Prevention as
it Celebrates its 50th Annual Conference!*

**Nutrition, Physical
Activity and Metabolism**

**50th Cardiovascular Disease
Epidemiology and Prevention**

Scientific Sessions 2010

NPAM March 2-4, 2010 | EPI March 3-5, 2010 | Hilton San Francisco Union Square | San Francisco, CA

This is an annual scientific meeting of the American Heart Association sponsored by the Council on Epidemiology and Prevention and the Council on Nutrition, Physical Activity and Metabolism.

my.americanheart.org

Poster Presentations (continued)

- P197 Longitudinal Relationship Between Walking Performance and Body Composition in Overweight Postmenopausal Women: Results from the WOMAN Study**
Kelley Pettee Gabriel, Univ of Nebraska Medical Ctr, Omaha, NE; Andrea M Kriska, Univ of Pittsburgh, Pittsburgh, PA; Kendra K Schmid, Univ of Nebraska Medical Ctr, Omaha, NE; Molly B Conroy, Darcy A Underwood, Kristi L Storti, Lewis H Kuller, Univ of Pittsburgh, Pittsburgh, PA

Psychosocial/Behavioral

- P198 Posttraumatic Stress Disorder and Autonomic Function in Veteran Twins: Do Genetic Factors Play a Role?**
Amit J Shah, Emory Univ, Atlanta, GA; Rachel Lampert, Yale Univ, New Haven, CT; Emir Veledar, Emory Univ, Atlanta, GA; Jack Goldberg, Univ of Washington, Seattle, WA; Douglas Bremner, Viola Vaccarino, Emory Univ, Atlanta, GA
- P199 Is Heart Rate Variability Related to Memory Performance in Middle-Aged Individuals?**
Amit J Shah, Shaoyong Su, Emory Univ, Atlanta, GA; Rachel Lampert, Yale Univ, New Haven, CT; Emir Veledar, Felicia Goldstein, Emory Univ, Atlanta, GA; Jack Goldberg, Univ of Washington, Seattle, WA; Douglas Bremner, Viola Vaccarino, Emory Univ, Atlanta, GA
- P200 Changes in Smoking Behavior Between Adolescence and Young Adulthood and Their Impact on Inflammation, Endothelial Dysfunction, and Arterial Stiffness in Young Adults: The Northern Ireland Young Hearts Project**
Roel J van de Laar, Isabel Ferreira, Casper G Schalkwijk, Martin H Prins, Maastricht Univ, Maastricht, Netherlands; Jos W Twisk, VU Univ, Amsterdam, Netherlands; Colin A Boreham, Univ Coll Dublin, Dublin, Ireland; Coen D Stehouwer, Maastricht Univ, Maastricht, Netherlands
- P201 Serum Long-Chain Omega-3 Fatty Acids and Cognitive Performance: The Kuopio Ischaemic Heart Disease Risk Factor Study**
Jyrki K Virtanen, Sari Voutilainen, Jaakko Mursu, Jussi Kauhanen, Univ of Kuopio, Kuopio, Finland; George A Kaplan, Univ of Michigan Sch of Public Health, Ann Arbor, MI; Tomi-Pekka Tuomainen, Univ of Kuopio, Kuopio, Finland
- P202 Low Social Support Is Associated with Excess CVD Risk Through Several Potential Mechanisms**
Brooke Aggarwal, Lori Mosca, Columbia Univ Medical Ctr/New York Presbyterian Hosp, New York, NY
- P203 Perceived Versus Predicted Lifetime Risk Among Adults in the Dallas Heart Study**
Jarett Berry, UT Southwestern, Dallas, TX; Donald M Lloyd-Jones, Northwestern Univ, Chicago, IL; Colby Ayers, Sachin Gupta, Kamakki Banks, Tiffany M Powell, James A de Lemos, Amit Khera, UT Southwestern, Dallas, TX

- P204 Anxiety Is a Major Clinical Predictor of Long-Term All-Cause Mortality in Patients with Coronary Artery Disease**
Charles M Blatt, Deepa Aggarwal, Wilfred Mamuya, Padraig Carolan, Brian Bilchik, Shmuel Ravid, Vikas Saini, Lown Fndn, Brookline, MA
- P205 More Risk Factors Are Clustering in Persons with Poor Self-Rated Health in an Apparently Healthy Japanese Population**
Kozo Tanno, Masaki Ohsawa, Toshiyuki Onoda, Kazuyoshi Itai, Kiyomi Sakata, Motoyuki Nakamura, Iwate Medical Univ, Morioka, Japan; Kazuko Kawamura, Iwate Health Service Association, Morioka, Japan; Akira Okayama, Japan Anti-Tuberculosis Association, Tokyo, Japan
- P206 Are Positive Psychosocial Factors Associated with Early Participation in Cardiac Rehabilitation After a Cardiac Event?**
Kashish Goel, Ross A Dierkhising, Julie Hathaway, Kristin V Douglas, Randal J Thomas, Mayo Clinic, Rochester, MN
- P207 Mind the Gap: Inequalities in Cardiovascular Mortality in Argentina**
Daniel Ferrante, Ministerio de Salud, Republica Argentina, Buenos Aires, Argentina; Martin O'Flaherty, Univ of Liverpool, Liverpool, United Kingdom; Bruno Linetzky, Graciela Abriata, Ministerio de Salud, Republica Argentina, Buenos Aires, Argentina; Enrique Vazquez, Pan American Health Organization, Buenos Aires, Argentina

Childhood

- P208 The Coronary Artery Risk Detection in Appalachian Communities Project**
Christa Ice, Emily Murphy, Lesley Cottrell, William Neal, West Virginia Univ, Morgantown, WV
- P209 Introducing Healthy Eating and Activity Programs in Child-Care Settings: Early Results from 2 Curricula**
Stephen Cook, Univ of Rochester, Rochester, NY; Marjorie Allan, Lauri Brugger, Dirk Hightower, The Children's Inst, Rochester, NY
- P210 Association Between Growth and Blood Pressure During the Life Course in Children and Adolescents**
Arnaud Chiolerio, Gilles Paradis, McGill Univ, Montreal, QC, Canada; Georges Madeleine, Ministry of Health and Social Development, Victoria, Seychelles; Fred Paccaud, Inst of Social and Preventive Med, Univ Hosp Ctr, and Univ of Lausanne, Lausanne, Switzerland; Pascal Bovet, Ministry of Health and Social Development, Victoria, Seychelles
- P211 Relation of Parental Blood Pressure and Body Mass Index to Their Development in Offspring**
Erin Rademacher, Univ of Rochester, Rochester, NY; David R Jacobs Jr, Lyn M Steffen, Antoinette Moran, Alan Sinaiko, Univ of Minnesota, Minneapolis, MN