

lenses, their health status, health care needs and use, and demographic characteristics were compared with all CSHCN and CSHCN with corrected vision. Significant predictors of vision status were identified.

METHODS: Cross-sectional parent-reported weighted data from a large Random-Digit-Dial household survey, the 2005–2006 National Survey of Children with Special Health Care Needs were used. Sponsored by the Health Resources and Services Administration Maternal and Child Health Bureau, it was conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics. The data file contained observations on 40,723 CSHCN, of whom 1,356 had problems seeing even with glasses or contacts. Logistic regression was used to identify significant predictors of vision status.

RESULTS: Over 2.8 million CSHCN had problems seeing without glasses or contacts. Of these, 88% wore glasses or contacts, 14.6% of whom (or 364,811 CSHCN) still had problems seeing.

CONCLUSION: About 3.3% of CSHCN had problems seeing even with glasses or contacts, and may have additional obstacles in usual activities.

P24
HEPATITIS B VACCINATION OF MALE NEONATES AND AUTISM

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PURPOSE: Universal newborn immunization with hepatitis B vaccine was recommended in 1991; however, safety findings are mixed. The Vaccine Safety Datalink Workgroup reported no association between hepatitis B vaccination at birth and febrile episodes or neurological adverse events. Other studies found positive associations between hepatitis B vaccination and ear infection, pharyngitis, and chronic arthritis; as well as receipt of early intervention/special education services (EIS); in probability samples of U.S. children. Children with autistic spectrum disorder (ASD) comprise a growing caseload for EIS. We evaluated the association between hepatitis B vaccination of male neonates and parental report of ASD.

METHODS: This cross-sectional study used U.S. probability samples obtained from National Health Interview Survey 1997–2002 datasets. Logistic regression modeling was used to estimate the effect of neonatal hepatitis B vaccination on ASD risk among boys age 3–17 years with shot records, adjusted for race, maternal education, and two-parent household.

RESULTS: Boys who received the hepatitis B vaccine during the first month of life had 2.94 greater odds for ASD ($n = 31$ of 7,486; OR = 2.94; $p = 0.03$; 95% CI = 1.10, 7.90) compared to later- or unvaccinated boys. Non-Hispanic white boys were 61% less likely to have ASD (OR = 0.39; $p = 0.04$; 95% CI = 0.16, 0.94) relative to non-white boys.

CONCLUSION: Findings suggest that U.S. male neonates vaccinated with hepatitis B vaccine had a 3-fold greater risk of ASD; risk was greatest for non-white boys.

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NOVEL, NONINVASIVE BIOMARKER OF FRUIT AND VEGETABLE INTAKE IN PRESCHOOL CHILDREN

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PURPOSE: Assessing fruit and vegetable intake in children is difficult. Self-report methods are subject to bias and measurement error, while measurement of carotenoid status in blood or tissue by HPLC (current best objective biomarker) is invasive and expensive. Resonance Raman spectroscopy (RRS), a novel, noninvasive method of measuring carotenoid status in skin using visible light, is an attractive new alternative to HPLC.

METHODS: RRS was used to estimate the variability and identify predictors of dermal carotenoid status in a large community-based sample ($N = 381$) of low-income preschool children in Connecticut. Children had their dermal carotenoid status assessed by RRS at one time point and dietary information was collected from parents using validated food frequency and food preference questionnaires.

RESULTS: Mean age was 3.8 years, 59.8% Hispanic or Latino, 50.7% male, and 47.0% of parents reported participation in SNAP (formerly, Food Stamp Program). Measured dermal carotenoid status produced an approximately normal distribution. Total fruit and vegetable intake assessed by food frequency and food preference questionnaires was positively associated with dermal carotenoid status ($p < 0.05$ for both). Age (years) was also positively associated ($p < 0.01$), while self-reported SNAP participation was inversely associated with dermal carotenoid status ($p < 0.01$).

CONCLUSION: An RRS measure of dermal carotenoids is a promising biomarker of dietary intake of fruits and vegetables in children.

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OCCUPATIONAL EXPOSURE AND AUTISM SPECTRUM DISORDER

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PURPOSE: To evaluate associations between parental occupational exposure and autism spectrum disorder (ASD).

METHODS: Complete occupational, exposure, and diagnosis data were available for 228 children (93 ASD, 135 control children) and their parents enrolled in the Childhood Autism Risks from Genetics and Environment study.

Three industrial hygienists (IHs) independently assessed potential occupational exposure based on the parents' listed occupation and responsibilities. Prevalence of self-reported and IH-assessed exposures for mothers and fathers was calculated. Odds ratios and 95% confidence intervals were used to assess associations.

RESULTS: When the presence of exposure in at least one parent was evaluated, self-reported exposure to asphalt was positively associated with ASD ($p = 0.029$). Although not statistically significant, ASD was also at least twice as likely in children who had at least one parent exposed to disinfectants, solvents, phenol, styrene, lacquers and varnish.

CONCLUSION: These results suggest that occupational exposures to some volatile chemicals may be important to consider in the etiology of ASD.

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RACIAL/ETHNIC DIFFERENCES IN THE PREVALENCE OF CHILDHOOD CARIES AND PARENTAL PERCEPTION OF NEED FOR DENTAL TREATMENT AND PREVENTIVE SERVICES

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PURPOSE: To examine the racial/ethnic variations in the prevalence of dental caries and to assess the parental perception of the need for dental treatment and preventive services in a nationally representative sample of children <17 years of age.

METHODS: Data from a subsample of 9,574 children <17 years old from the National Health and Nutrition Examination Survey (NHANES III) (1988-1994) were analyzed. Dental caries was identified from the dental examination. Race/ethnicity, service use, parental report of oral health, and need for dental treatments were identified by parent's self report.

RESULTS: of the 9,574 children, 48% had dental caries, 21% their parents reported they had fair/poor oral health, 34% never receive dental services & 34% reported need for dental services. Hispanic and Black children were more likely to have dental caries than white children (OR = 1.3, 95% CI = 1.7, 2.0) & (OR = 1.2, 95%CI = 1.1, 1.4) respectively. Hispanic & Black parents were more likely to report need for dental services than white parents (OR = 2.3, 95%CI = 2.1, 2.6) & 1.6, 95% CI = 1.4, 1.8) respectively. Parent's high education, income & insurance status were associated with dental caries and the reported need for dental services ($p < 0.05$). Adjusting for confounders, Hispanic & Black children had higher odds for dental caries and need for service relative to white children.

CONCLUSION: Development of oral health promotion strategies for children and their parents is needed to improve oral health for children of ethnic minorities.

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WORKING FOR MOM AND DAD: THE PRICE KIDS PAY

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PURPOSE: The Fair Labor Standards Act (FLSA) was created in 1938 to prevent youth from working in dangerous jobs and to ensure that work did not interfere with their educational opportunities. Youth who are employed in parent-owned businesses are not covered by the FLSA. No information is known about the type of work done and injuries sustained by children working for their parents.

METHODS: A questionnaire was administered to 3,973 middle school students throughout the five public health regions of Wisconsin.

RESULTS: Overall, 774 youth aged 11-13 years old (35%) reported working in family businesses. The most common jobs/tasks reported by the youth while employed in family businesses were lawn care, dishwashing, and cleaning tables/floors/rooms. Seventeen percent responded that they were injured, 15% had a near-miss incident, and 10% felt they were asked to do something dangerous while working. Males were significantly more likely to report being injured (21% vs. 13%, $p = 0.0016$) and report being asked to do something dangerous (15% vs. 6%, $p < 0.0001$). The prevalence of injury was highest among youth who were roofing (35%), tree/shrub trimming or cutting (35%), working as a sales person (29%), painting (26%), and carpentry (25%).

CONCLUSION: There are no current laws that protect youth working in family businesses from engaging in dangerous jobs or tasks. In our study, many of the youth responded that they were doing jobs or tasks which would be illegal under the FLSA and more specifically under the Hazardous Occupation Orders (HOO). Federal child labor laws need to be reviewed.

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THE RELATION BETWEEN ADOLESCENT PERCEPTIONS OF HEALTH AND RISK BEHAVIORS: COULD A GLOBAL MEASURE OF HEALTH PROVIDE CLINICAL INDICATIONS OF ADOLESCENT HEALTH RISKS?

CONTEXT: Promoting healthy practices among young people in the United States is one key strategy for reducing disease burden and improving the health of the adult population in the country. In this regard, numerous epidemiological studies suggest that an individual's subjective appraisal of health status is a reliable predictor of mortality, morbidity, psychosocial risks and other health related behaviors in both cross-sectional and longitudinal studies among adult populations. Nonetheless, studies exploring the influence of