

Epidemiology/Genetics Abstracts

Title: SPINA BIFIDA PREVALENCE AMONG CHILDREN IN TEN REGIONS OF THE UNITED STATES

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Background: Little is known about the prevalence of spina bifida (SB) among children of different age groups due to the lack of population-based registries of affected children beyond infancy.

Method: Infants born with SB were ascertained by ten population-based birth defects monitoring programs located in Arkansas, metropolitan Atlanta (five central counties), California (eleven counties), Colorado, Iowa, New York (New York city excluded), North Carolina, Oklahoma, Texas, and Utah. Linkages with the National Death Index and state vital records were used to determine vital status as of 2002. Using the U.S. Census population estimates, we examined trends of prevalence during 1990-2002 and estimated prevalence among children with SB 0-19 year of age as of July 2002. Point prevalence ratios (PR) and 95% confidence intervals (CI) were estimated by age group (0-3, 4-7, 8-11, 12-15, 16-19 years of age), region, race/ethnicity, sex, and lesion site (cervicothoracic, lumbosacral).

Results: The overall SB prevalence among children showed a slight decreasing trend among all age groups during 1990-2002. In July 2002, the SB prevalence among children 0-19 year of age was 3.07 per 10,000 population in 10 regions of the U.S. but varied by region. Among children 0-19 year of age, non-Hispanic Blacks had a lower SB prevalence (PR=0.62, CI=0.54-0.70) while Hispanics had a higher SB prevalence (PR=1.13, CI=1.05-1.22) compared with non-Hispanic Whites. Prevalence among children and adolescents was higher among females (PR=1.12, CI=1.05-1.20) and among children with lumbosacral lesions (PR=6.36, CI=5.60-7.22).

Conclusion: The prevalence of SB among children varies by region, race/ethnicity, sex, and SB lesion site suggesting possible variations in prevalence at birth and/or in survival by these characteristics. Information on age-group specific prevalence estimates could be useful in assessing the resources needed to treat patients with SB in each age group more effectively in defined communities.