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Validity of parental work information on the birth certificate

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BMC Public Health 2008, 8:95 doi:10.1186/1471-2458-8-95

Published: 25 March 2008

Abstract

Background

In the most recent revision (2003) of the U.S. standard certificate of live births, the National Center for Health Statistics recommended that all states collect maternal and paternal usual occupation. Because such information might be useful in the surveillance of job-related risk areas, we assessed the quality of parental work information on the U.S. birth certificate.

Methods

Occupational histories obtained from maternal interviews with Texas (USA) participants in the National Birth Defects Prevention Study were linked to and compared with parental work information on birth certificates. With occupational information from interviews serving as the gold standard, we assessed the quality of occupational information on the birth certificate with measures of sensitivity, specificity, and the kappa statistic.

Results

Of the 649 births available for study, parental occupation agreed between the birth certificate and interview for 77% of mothers and 63% of fathers with similar agreement by case-control status. Among occupations and industries with 10 or more workers by interview, sensitivity of the birth certificate information ranged from 35% to 100% for occupational categories and 100% for industrial sectors. Specificities of occupations/industries studied ranged from 93 to 100% for maternal occupations (0.76 to 0.90) and industries (0.59 to 0.94) were higher than those for paternal occupations (0.48 to 0.92) and industries (0.47 to 0.89). Mothers were frequently misclassified as homemaker or unemployed while the paternal information was often missing altogether on the birth certificate. As health diagnosing and treating practitioners were the least likely (0%) and women in food