

Evaluation of sample coverage in Salt Lake County using birth certificate data

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Introduction

The current sampling frame for the National Children's Study is based on incident pregnancies and/or births. Salt Lake County, one of the original seven VCs, recruited for this sampling frame based on household-based recruiting. Assessment of birth certificates is an attractive approach to assessing what proportion of eligible births in a geographic sampling unit were enrolled in the study.

Methods

We obtained data from birth certificates from the State of Utah for Salt Lake County, geocoded the birth records to determine potential eligibility for the NCS, and also address-matched the dwelling units (and their associated births) from household enumeration and enrollment in the NCS to the birth records of the State of Utah for births occurring in 2010.

Results

Geocoding birth certificate files resulted in some birth records considered as eligible that were actually not eligible based on address matching. Address matching identified additional eligible births that were not identified through geocoding. At least 50% of identified eligible births were enrolled in the study. Approximately 10% of NCS enrolled births were not identified in birth certificate records as geographically eligible. The primary reason for non-enrollment of eligible births was new move-ins (after the original enumeration).

Discussion

Neither geocoding nor address matching of birth certificates completely identify the eligible sampling frame for the NCS. Possible reasons for this include a high rate of moving during pregnancy, inaccurate or surrogate address listing on birth certificates, and name changes. The enrollment of geographically eligible births decreases with increased time following initial enumeration.