Immunization Registries: Use of Race and Ethnicity, and Socioeconomic Status Indicators to Identify Immunization Disparities

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Abstract

Immunization registries play a key role in monitoring immunization coverage levels and reducing health disparities associated with under-immunization. In this study immunization coverage rates for racial/ethnic minority groups and socio-economic status indicators are obtained from the results of the 2006 National Immunization Survey. A comparison of coverage rates with and without SES indicators reveals disparities previously obscured in coverage levels which are based on race/ethnicity data exclusively.

Introduction

Immunization registries are confidential, population-based, computerized information systems that contain immunization data about individuals in a region. They play a key role in reaching the Healthy People 2010 goal, of eliminating health disparities. To accomplish this, standardized race and socio-economic status (SES) indicators need to be collected and included in assessment of immunization coverage levels. The need for both kinds of data has been discussed in many health related areas and to the best of this author’s knowledge, is documented here for the first time in assessment of immunization coverage levels.

Methods

Immunization coverage levels for completed immunizations for 19-35 month old children were obtained from the 2006 National Immunization Survey results at: http://wonder.cdc.gov/data2010/focus.htm. These data are based on telephone interviews of a sample of the civilian non-institutionalized population and are supplemented by a survey of immunization providers for interview participants. Completed immunization coverage levels for Whites, Blacks or African American, and Hispanic or Latinos were compared 1) using only race/ethnicity; 2) for each group, below poverty threshold and, at or above poverty threshold. Poverty level is based on family income and size using U.S. Census Bureau poverty thresholds.

Results

Comparison of immunization coverage levels for racial minority groups indicates decreased levels of coverage of 1% and 3%, respectively, among Black/African American and Hispanic/Latino groups compared to Whites. When socio-economic status data for each group is included, larger gaps become evident and a previously obscured gap is revealed. White children who live in poverty have immunization coverage rates 7% less than White children who live at or above the poverty level. Black/African American children who live in poverty have immunization coverage rates 7% less than Black/African American children who live at or above the poverty level. (Fig. 1)

Figure 1: Percentage of 19-35 month old children with completed vaccination history

Conclusion

Assessment of both race/ethnicity and SES indicators is needed. Race data alone will not sufficiently identify immunization coverage disparities, potentially hindering effectiveness of related public programs to improve immunization coverage levels.

References