ASTHMA HOSPITALIZATION IN NEW YORK CITY 1988–1997

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Prevalence, morbidity, and mortality from asthma have increased throughout the US over the past decade.¹ Urban areas in general and New York City in particular have been especially hard hit: By the mid-1990s, asthma hospitalization rates for children younger than 15 years in New York City were almost three times higher than for children in the US and more than four times higher than for children in the rest of New York State.

The absolute impact of asthma is severe: Asthma is a leading cause of hospitalization for all age groups and the leading cause among children. In 1997, in New York City, there were 33,348 hospitalizations for asthma; 14,780 (44%) were among children—an average of 40 children per day. Hospital charges associated with asthma were in excess of \$261 million. However, this figure is certainly an underestimate of the total economic burden of asthma as it does not include costs associated with outpatient care or medications and the “hidden costs” of lost work and school days.

In New York City, the overall asthma hospitalization rate increased by 22% during the decade from 1988 to 1997. While the reasons for this increase are not well understood, the decade was marked by increasing disparity in asthma hospitalization rates between persons from low-income communities and those from high-income communities, particularly among young children. Low-income, preschool-aged children started the decade with asthma hospitalization rates 3.5 times greater than their wealthier counterparts. By 1997, rates among low-income children were more than 4 times greater, reflecting a 63% increase

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FIGURE 1 Trends in asthma hospitalization rates, high- and low-income ZIP code areas of New York City children aged 0–4 years. High income = top 20% of ZIP codes by 1990 median income; low income = bottom 20% of ZIP codes by 1990 median income. (From: NYSDOH SPARCS and U.S. Bureau of the Census.)

in asthma hospitalization rates among low-income children compared to a 34% increase among their wealthier counterparts (Fig. 1). The relationship between poverty and risk for asthma hospitalization persists across all age groups (Fig. 2). The association between asthma hospitalization rates and community-level measures of poverty has been noted by others in New York and elsewhere.²⁻⁷ The time trends presented here suggest that this association has become stronger

FIGURE 2 Asthma hospitalization rates in high- and low-income ZIP code areas, New York City, 1997. High income = top 20% of ZIP codes by 1990 median income; low income = bottom 20% of ZIP codes by 1990 median income. (From: NYSDOH SPARCS.)

over time and may reflect increasing disparity in access to quality care, exposure to environmental irritants, or actual differences in prevalence between low-income and wealthier communities.

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