BACKGROUND

- Influenza virus infection causes severe disease each year.
- >140,000-230,000 hospitalizations
- >12,000-50,000 deaths

Groups known to be at higher risk for severe outcomes of influenza include children aged <2 years, adults aged >60 years, persons with underlying medical conditions, and pregnant women.

There is less known about the impact of poverty and other social and medical risk factors (e.g., smoking, drug/alcohol abuse, or obesity) on severe outcomes.

One recent study showed the incidence of an influenza-related hospitalization in high-poverty neighborhoods to be nearly twice the incidence in low-poverty neighborhoods (Hatcher et al., 2016; MMWR).

OBJECTIVES

- Determine if neighborhood-level poverty is associated with severe outcomes of influenza among patients hospitalized with influenza.
- Determine the association of other social and medical risk factors among hospitalized patients with poverty and severe outcomes.

METHODS

- The Influenza Hospitalization Surveillance Network (InFluSN) conducts surveillance for laboratory-confirmed influenza hospitalizations from October to April each year, in over 70 counties in 13 states (~9% US population).

For this study, we included all patients with influenza from October 1, 2012, to April 30, 2015, and 2014–15 influenza seasons.

We excluded patients without a reliable home address and who had not received antiviral treatment.

We defined neighborhood-level poverty using census tract using American Community Survey data.

We used standard neighborhood-level poverty definitions:
- <5% (low-poverty neighborhood)
- 5 to <10% (mid-poverty neighborhood)
- 10 to <20% (high-poverty neighborhood)

We calculated risk factors and outcomes from medical chart review.

RESULTS

- We calculated adjusted odds ratios (aOR) using logistic regression.

We linked each patient to their home address.

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