Maternal Nativity and Residence in US Territories and Preterm Birth

Visit Article

Importance

US territory nativity and/or residence may be associated with health because it affects environmental exposures, insurance coverage, prenatal care, and other factors. Investigations of preterm birth in the US territories are limited.

Objective

To assess the association between maternal territory status and preterm birth, as well as whether insurance type modified associations.

Design, Setting, and Participants

Cross-sectional study of restricted-use birth certificates of in-hospital, singleton births in the US and territories from 2014 to 2023.

Exposures

Maternal territory status was defined for births in territories where data were available (Guam, Northern Mariana Islands, Puerto Rico, and Virgin Islands) for the following groups: (1) those with territory nativity and residence; (2) those with territory nativity and mainland residence; (3) those with mainland nativity and territory residence; and (4) those with mainland nativity and residence (reference group). Insurance type (private, Medicaid, or other) was evaluated as well.

Main Outcomes and Measures

Preterm birth (live birth before 37 weeks' gestation).

Results

Among 28 627 700 births, 465 291 (1.6%) had any maternal territory status (nativity or residence). This group had a mean (SD) age of 27.1 (6.0) years, and 297 593 (64.0%) had Medicaid insurance. The highest preterm birth rate was among those with territory nativity and residence (10.5%; 95% CI, 10.4%-10.7%); the lowest was among those with mainland nativity and residence (8.4%; 95% CI, 8.4%-8.5%). Individuals with territory nativity and residence had an adjusted relative risk (aRR) of 1.30 (95% CI, 1.29-1.32) for preterm birth compared with the reference group. There was significant interaction between territory residence and insurance. Compared with individuals with mainland residence and private insurance, those with territory residence and Medicaid had the highest preterm birth risk (aRR, 1.57; 95% CI, 1.55-1.59), followed by territory residence and private insurance (aRR, 1.42; 95% CI, 1.39-1.45).

Conclusions and relevance

In this cross-sectional study, maternal territory nativity and residence were associated with preterm birth. Territory residence was associated with a higher risk of preterm birth, regardless of insurance type. Privately insured-individuals in US territories had a higher risk of preterm birth than Medicaid-insured individuals in the mainland. Given differential access to health care, health insurance, and other social exposures between territory and mainland populations, future work should explore causal effects and related policies that may improve birth outcomes in US territories.

Journal:

JAMA Network Open
Authors: Montoya-Williams D, Barreto A, Formanowski BL, Burris HH, Handley SC, Nelin T, Lorch SA, Ortiz R