Maternal Health Disparities Among Puerto Ricans

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The primary causes of death in females – i.e., causes of over 1 million deaths – are cardiovascular diseases, infectious and parasitic diseases, cancer, respiratory diseases and infections, unintended injuries, and perinatal conditions.1 Given the significant role of women in families, loss of women can result in further poverty, higher mortality among children, food insecurity, and children being withdrawn from school.1 The World Health Organization (WHO) identified four main risk factors contributing to these causes of death: tobacco use, harmful use of alcohol, malnutrition, and limited physical activity.1 If pregnant or immediately postpartum women are exposed to these risk factors, there are significant health effects on maternal and pediatric outcomes.2–7 The economic consequence of exposure to these risk factors is not trivial.8–10

Puerto Ricans are the second largest Hispanic subgroup in the U.S., following those of Mexican origin.11 The number of Puerto Ricans living in the U.S. (4.6 million) surpassed that living in Puerto Rico (3.7 million) in 2010.12 Moreover, given the economic reality facing the island, over the next few years, more Puerto Ricans may migrate to the United States mainland in search of better economic opportunities.13 Moreover, newer Puerto Rican migrants tend to be poorer than their earlier counterparts, and face a higher probability of living in poverty.14 The state of Pennsylvania has a population of 366,082 Puerto Ricans (2.9% of the entire state population15), and the state of Delaware is within the top 10 states with the most Puerto Rican residents by proportion (2.5%).15

Puerto Ricans living in the U.S. have worse health outcomes relative to other Hispanics, including chronic liver disease, heart disease, diabetes, cancer, and homicide.16 Some of these non-communicable diseases are attributable to unhealthy behaviors, including the highest smoking rates among Hispanics and a sedentary lifestyle.16 Puerto Rican pregnant women living in the U.S. once had the second highest prenatal smoking rate (12.2%) in the U.S., following American Indian/Alaska Native populations.17 Recent evidence showed that the self-reported prenatal smoking rate among Puerto Rican women was 21% in one region of the U.S.18 This may have significantly impacted breastfeeding rates among Puerto Rican mothers, due to inverse correlations between prenatal smoking and breastfeeding rates.19,20 Low-income mothers in Puerto Rico maintain a median breastfeeding duration of five months21; however, a considerable disparity in breastfeeding duration has been observed among low-income Puerto Rican women in the U.S., with a median duration of only two weeks.22 The disparity in
breastfeeding is also observed between Puerto Rican mothers and other Hispanic subgroups within the U.S., in which 45% of low-income, overall Hispanic women breastfeed for six months, similar to non-Hispanic White women.\textsuperscript{23}

In terms of healthy lifestyle during pregnancy, only about 13% of Puerto Rican pregnant women in a U.S. region met physical activity guidelines and 19% met fruit/vegetable guidelines.\textsuperscript{18} The overall prevalence of meeting the guidelines of healthy nutrition and physical activity is low; however, Spanish-language preference (an indicator of less acculturation), and college education were significantly associated with meeting the healthy guidelines.\textsuperscript{18}

Given the economic and long-term health consequences from adverse pregnancy and postpartum outcomes, as well as a growing number of Puerto Ricans migrating to the mainland, attention should be paid to their maternal and infant health indicators. Psychosocial and behavioral interventions to address maternal smoking range from brief counseling to comprehensive psychosocial support,\textsuperscript{24–26} and psychosocial interventions such as incentive use and counseling show significant effects on prenatal smoking cessation rates.\textsuperscript{24} Physical exercise interventions and nutritional and exercise counseling for overweight and obese pregnant women\textsuperscript{7,27} have had a significant reduction in the incidence of gestational diabetes, albeit with no consistent impact on preventing adverse birth outcomes.\textsuperscript{27} Peer support has been the most promising component to increase continued breastfeeding rates\textsuperscript{22,28} as shown by recent evidence in significantly increasing continued breastfeeding rates by combining that with incentive use.\textsuperscript{29}

The Delaware Department of Public Health funds a community outreach program (Health Ambassadors) to educate and make community referrals for managing maternal and infant health in the state. This type of program can suggest the value of racial and ethnic diversity in the approach to communities, and also demonstrate the efficacy and cost-effectiveness of evidence-based, multi-component interventions to address prenatal smoking, prenatal healthy eating and physical activity, and breastfeeding.

We propose that any effective intervention should be culturally tailored to the intended audience. This has obvious benefits in terms of initial acceptance and continued sustainability. We further propose that in these efforts, Puerto Rican women remain a high priority given their high level of vulnerability.

\textbf{References}


