Children Whose Families Lost Income or Jobs Related to the BP Deepwater Horizon Oil Spill Were More Likely to Have Persistent Health Problems

Families that experienced job and income loss from the 2010 BP Deepwater Horizon oil spill (BP DHOS) were more likely to report that their children have persistent health problems, according to researchers from Louisiana State University and National Center for Disaster Preparedness at Columbia University.

Their findings underscore the need for policy and programming tailored to better support the long-term health of children who have experienced a disaster.

The research team used data from the Resilient Children, Youth, and Communities (RCYC) study—a longitudinal survey of households with children in BP DHOS affected areas of South Louisiana—to consider the effect of oil spill exposure on the health trajectories of children. Their analysis examined the experience of about 400 children in 2014, 2016, and 2018. They analyzed the disaster's impacts on both overall child health and the number of recent physical health problems children had experienced—including respiratory, vision, and skin problems, headaches, and unusual bleeding—in relation to the BP DHOS.

Overall, 51% of children were in households with physical exposure (could smell the spill or had contact with the oil, tar balls, or water-cleaning agents) and 37% were in households with economic exposure (income or job loss related to the spill).

Statistical models showed that BP DHOS exposure via physical contact and job/income loss both negatively influenced initial child health. However, the effects of physical exposure dissipated over time, while the effects of job/income loss persisted. This finding held for both general child health and the number of recent physical health problems among children.

This research reinforces the idea that the impacts of a disaster like the BP DHOS can be expected to unfold over many years. The State of Louisiana continues to invest in long-term planning and monitoring of restoration activities related to the BP DHOS. This study highlights the importance of social and economic dimensions of vulnerability and resilience to disasters being part of these efforts, and the need to tailor public health responses accordingly.

The study was supported by a grant from the Gulf of Mexico Research Initiative.

Journal Article: Tim Slack, Rhiannon A. Kroeger, Samuel Stroope, Kathryn Sweet Keating, Jonathan Sury, Jeremy Brooks, Thomas Chandler, and Jaishree Beedasy, "Deepwater Horizon Oil Spill Exposure and Child Health: A Longitudinal Analysis," *Population and Environment* 42 no. 4 (2021). DOI: 10.1007/s11111-020-00354-6.