Better Rainfall Linked to More Time Spent Farming and Less Time Breastfeeding Among Ethiopian Mothers

More rainfall during Ethiopia's main agricultural growing season is associated with a lower likelihood that infants are exclusively breastfed for the recommended six months, Heather Randell of Penn State and Kathryn Grace and Maryia Bakhtsiyarava of the University of Minnesota-Twin Cities document.

Their findings suggest that favorable rainfall conditions for crop production may impact mothers' time use, possibly reducing the time they have available to breastfeed their babies. This information can help policymakers develop targeted interventions that reflect the dynamic health and nutrition needs of farming households, such as promoting labor-saving technologies.

The researchers linked data on women and children by geographic location from the Ethiopia Living Standards Measurement Study-Integrated Surveys on Agriculture (LSMS-ISA) to fine-scale rainfall and temperature data. Their statistical analysis explored links among local climatic conditions, breastfeeding practices, and the amount of time women spent planting and harvesting.

On average, a child who experienced 5 cm of average monthly rain has a nearly 75% chance of not being exclusively breastfed for the full recommended six months. With 25 cm of average monthly rain, the chance that a child is exclusively breastfed for six months drops to 57%. Further, the more rain that falls during the primary growing season, the more time women spend planting and harvesting.

These findings suggest that agricultural labor demands among mothers may affect infant care, leading to breastfeeding practices that do not align with health recommendations. However, this shift in time use may be part of a larger, forward-looking strategy that women employ to maximize household food production and storage. In other words, mothers' strategic time use during periods with more rain may ultimately benefit children's nutritional outcomes over the longer term through improved household food security, despite reducing exclusive breastfeeding in the short term.

Policies to promote breastfeeding in low- and middle-income countries should consider the strategic tradeoffs mothers make to feed their children. Policies should be designed to help support mothers as they manage multiple food security considerations to provide infants with optimal nutrition without undermining household food security and income. For example, suppling households with technologies that make planting and harvesting more efficient can reduce time demands on new mothers. As climate change affects rainfall patterns globally, it will become increasingly critical to consider the complex ways that rainfall influences women's time use, infant feeding, and household food security.

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