

Child malnutrition caused by more than lack of food

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Giving poor families land on which to grow crops has been shown to improve child nutrition. New research also shows that giving families non-agricultural land and better housing also is beneficial for children's growth and nutrition.

Results of the study of child malnutrition in rural Guatemala will be presented Sunday, May 1, at the Pediatric Academic Societies (PAS) annual meeting in Denver.

Guatemala's rural populations suffer from one of the most unequal land distributions in [Latin America](#). About 2 percent of the population owns 70 percent of all productive farmland. To remedy this, non-governmental organizations (NGOs) have raised money to buy private land and donate it to poor farmers so they can grow crops. However, urbanization and lack of land have led NGOs to distribute land for housing instead of farming.

Asya Agulnik, MD, MPH, and her colleagues looked at the effects of this change in land distribution on [child health](#) in coffee-growing areas of Guatemala. Researchers compared child malnutrition rates in five villages, four of which received non-agricultural land and brick houses in organized communities, along with improved sanitation. Families in the fifth community continued to live in squatter settlements on plantations.

Using WHO growth curves, investigators compared weight-for-age measurements of 242 children in these communities before and after the

land distribution.

Before the moves, about 37 percent of children younger than 38 months were moderately malnourished, while just over 7 percent were severely malnourished. Twenty months after families received land and houses, malnutrition rates dropped among children in the same age group; roughly 19 percent were diagnosed with moderate malnutrition, and 5 percent were severely malnourished. Older children who were not breastfeeding at the time their family received land allotments and housing experienced the greatest nutritional benefit.

Meanwhile, children who remained in squatter settlements experienced worsening malnutrition.

"Malnutrition is a major problem for the health of children under 5 years of age in rural Mayan Guatemalan villages," said Dr. Agulnik, lead author of the study and a resident at Children's Hospital Boston. "This study demonstrates that in areas where land scarcity is a major problem, land distributions supporting improved housing and community organization can improve [child nutrition](#) without changing a family's income. It also suggests that in our population, living conditions, sanitation, crowding and community organization play a major role in causing child malnutrition."

The study underscores the fact that childhood [malnutrition](#) is not only about food, said study co-author Paul Wise, MD, MPH, FAAP, who created a program at Stanford University in California called Children in Crisis to improve health care to children living in politically unstable regions. "While this study documents the terrible toll of poverty on child health, it also emphasizes the interaction between the child, infections, community life and the exercise of political power."

More information: To see the abstract, go to

http://www.abstracts2view.com/pas/view.php?nu=PAS11L1_3414.

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