

# Leave no child behind:

## Urban living's reverse effects on child health in South Africa and India

*In South Africa and India, wide health inequalities exist among children under five years of age. Children with inadequate food, nutrition and immunisation are at greater risk of death and enduring health problems. A recent study investigating health inequalities in the two countries found that in India, children in rural areas are more likely to be food insecure, while the opposite is true in South Africa. The study authors, including the HSRC's Charles Hongoro, explore this and other reasons for socioeconomic disparities in health – and how to close the gaps.*

By **Andrea Teagle**

In India and South Africa – both developing countries with heightened poverty and inequality – child mortality and poor health remain unacceptably high. One-third (34.7%) of [children under five](#) in India, and one in five children in South Africa were stunted in 2015 and 2017, respectively. Evidence suggests that the health of children in South Africa has deteriorated [over time](#), despite an increase in social spending, with inequalities further widening during the COVID-19 pandemic.

But what exactly drives the health discrepancies between rich and poor households? Having a clearer idea of what these factors are – aside from, for example, simply household income – can help policymakers close this gap.

A team of researchers, led by Dr Olufunke Alaba from the University of Cape Town, set out to better understand the problem in India and South Africa. First, they plotted the cumulative share of immunisation coverage, food insecurity and malnutrition against the cumulative share of children ranked poorest to richest in each country. They then looked at individual drivers of these socioeconomic distributions. These included parents' individual education levels, mother's age, socioeconomic status, and whether the child lives in an urban or rural area.

As might be expected, in both countries food insecurity and malnutrition were concentrated among poorer children, and in both countries the poorest three quintiles of children were most likely to be vaccinated. However, in South Africa, there was a cumulative pro-poor effect, while in India, immunisation coverage slightly favoured children from richer households.

### Urban-rural divide

The study was based on South Africa's 2016 and India's 2015 nationally representative demographic and health surveys. A child was considered to be fully immunised if they had been vaccinated against diphtheria, tetanus, pertussis, polio, measles, and tuberculosis: the six

childhood diseases that account for the biggest proportion of deaths among children younger than 12 months. Food insecurity was defined as consuming less than 4 out of 14 food groups (including grains, vegetables, and meat among others), in accordance with the World Health Organization's recommendations. Malnourishment was determined from [weight for age](#).

To plot the inequalities, the researchers used the Erreygers normalised concentration index (ENCI). ENCI values range from -1 to 1, and the larger the absolute value of the ENCI, the more severe the health inequalities. A negative ENCI means that the indicator is concentrated among poorer children. (Note that in the case of immunisation coverage, a negative ENCI means a pro-poor distribution – in other words, this is a positive finding, as immunisation helps to combat health inequalities.) For food insecurity, a negative ENCI means that poorer children are more likely to be food insecure.

In India, two-thirds (66.1%) of children were fully immunised, with an ENCI of 0.16 indicating that overall, richer children account for a slightly higher proportion of immunisations. In South Africa, the ENCI index was -0.2, indicating that immunisation was slightly more concentrated among lower-income children. While this is an encouraging finding, South Africa's total immunisation coverage remains low at 33.4%.

Food insecurity was exceptionally high in both countries, with 8 out of 10 (79.8%) children in India and just over 8 out of 10 children (85%) in South Africa experiencing food insecurity. Malnutrition in children was markedly higher in India, at 39.3%, compared with 7.9% in South Africa.

According to the HSRC's Prof Charles Hongoro, one of the study authors, "South Africa had a lower rate of malnutrition probably because of the effect of social grants and other social protection interventions that are meant to assist the poor and vulnerable populations."

The study also found a differing geographic distribution of food insecurity and malnourishment between the two countries. Three-quarters (74.8%) of children facing food insecurity in India (and 78.4% of malnourished children) lived in rural areas. By contrast, a majority (65.3%) of the food-insecure children (and 53.8% of malnourished children) in South Africa lived in urban areas.

“In South Africa, this is linked to urban migration that’s leading to the proliferation of informal settlements and urban poor. Most of these people are unemployed and therefore have limited access to food, and if they have, food diversity is very poor,” says Hongoro, adding that most of these children come from households that are reliant on social grants.

### **Complex effect of mothers’ education**

In South Africa, children with mothers with a higher education level were more likely to be food secure. However, a mother’s education did not have a positive influence on malnourishment, suggesting that while education increases the availability of food for children, partly through indirect impact on employment opportunities, etc, it does not necessarily ensure the availability of nutritious food. Similarly, female-headed households narrowed the inequality gap in food security in South Africa; however, malnourishment was more likely to be higher in these households. (In South Africa, obesity and malnourishment often occur concurrently.) Part of this effect likely reflects the [higher rate of poverty](#) in female-headed households.

In India, children in female-headed households were more likely to be both food secure and adequately nourished. But a mother’s education increased inequalities in food security, a non-intuitive finding that the authors attribute to “complex social and cultural beliefs in many developing countries”.

### **Recommendations**

In South Africa, efforts need to be made to increase the availability and affordability of nutritious food in urban areas. To better understand barriers to accessing nutritious food, the HSRC is currently undertaking the National Food and Nutrition Security Survey – South Africa’s first in-depth food insecurity survey.

The positive effect of mothers’ education on food security in the child nutrition survey reflects the findings of international literature. However, the fact that in South Africa, this positive effect does not extend to reducing inequalities in nutrition suggests a need for nutrition educational programmes. Household wealth, or the lack thereof, accounted for the biggest share of health inequalities in food security in both countries. Noting the strong interdependence between nutrition security and social protection, the authors recommend enhancing social protection for vulnerable households.

South Africa’s pro-poor immunisation infrastructure can be leveraged to reduce some of the nutrition inequalities. ‘Immunisation is the only healthcare intervention that brings most households into contact with the health system, five or more times during the first year of a child’s life,’ Alaba and her team write. ‘It is essential to make nutrition services part of the standard package of available healthcare services and universally available to vulnerable populations with higher levels of undernutrition, morbidity, and mortality rates,’ they contend.

Socioeconomic inequalities with regard to malnourishment can also be targeted through community health programmes, particularly in urban areas in South Africa. The authors note that in Mali, an [expansion of community health workers’ package of interventions](#) to include diagnosis of malnutrition as well as treatment significantly reduced instances of malnutrition among children. In the absence of such interventions in South Africa, India, and other developing countries, the authors warn that the UN’s 2030 Sustainable Development Goal of ‘leaving no one behind’ will not be met.

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