

Short changed: the cost of child undernutrition in Papua New Guinea

By Majella Hurney
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Papua New Guinea (PNG) is facing a nutrition crisis. Alarmingly, almost one in two children in PNG have stunted growth from chronic malnutrition.[i] PNG has the fourth highest child stunting rate in the world – a rate that is more than double the global average.

Not only does malnutrition pose a threat to the survival and development of children in PNG, it also poses a major threat to sustainable economic growth. Evidence shows that if a child is malnourished during the first 1000-day period from conception to their second birthday, they will suffer cognitive and physical impairments that are permanent and irreversible. These impairments limit a child's education and employment prospects. Reduced individual earnings translate into reduced economic productivity at the national level. This is how malnutrition can trap children in an intergenerational cycle of poverty.



Not only does undernutrition rob children of their growth and earning potential, it also threatens their very survival. According to national data in PNG, approximately 33% of all hospital deaths of children under five are either directly or indirectly caused by malnutrition. However, in a new report commissioned by Save the Children, Frontier Economics estimates that malnutrition could be the underlying cause of up to 76% of total deaths of children under five across community and health facilities combined[ii] – a figure significantly higher than the global estimate of deaths of children under five associated with malnutrition at 45%. Evidence also suggests that childhood undernutrition can increase mortality risks later in life, with stunted children more susceptible to obesity, coronary heart disease and type 2 diabetes.

Frontier Economics estimates that child undernutrition cost the PNG economy the equivalent of $USD508 million in the financial year 2015-16 (2.81% of its annual GDP) through three main pathways:

1. Losses in productivity from a reduction in labour force due to increased childhood mortality, estimated at $USD46 million (0.26% of GDP);
2. Losses in potential income and productivity from poor physical status and reduced cognitive function, estimated at $USD459 million (2.54% of GDP); and
3. Losses from increased health care expenditure in treating diseases associated with childhood undernutrition, estimated at $USD3 million (0.02% of GDP).

These losses significantly exceed PNG's projected health and education sector budgets for 2017 – $USD385 million and $USD366 million respectively.

However, the estimated cost of $USD508 million is regarded as conservative, and Frontier Economics posits that the economic cost of child undernutrition could be as high as $USD1.5 billion per annum – 8.45% of GDP – using alternative assumptions.

Despite the enormous toll of child undernutrition on PNG's economy, little progress has been made in tackling this challenge over the past two decades. Indeed, the child stunting rate appears to have worsened from 43.5% in 2005 to 49.5% in 2015. Interestingly, the stunting rate is high across all wealth quintiles. As shown in the figure below, the poorest wealth quintile has the highest stunting rate at 55%. However, the stunting rate among the richest quintile is still very high at 36%, and similarly high among the third and fourth quintiles. This begs the question, why?

Figure 1: Stunting, wasting and underweight rates across wealth quintiles in PNG

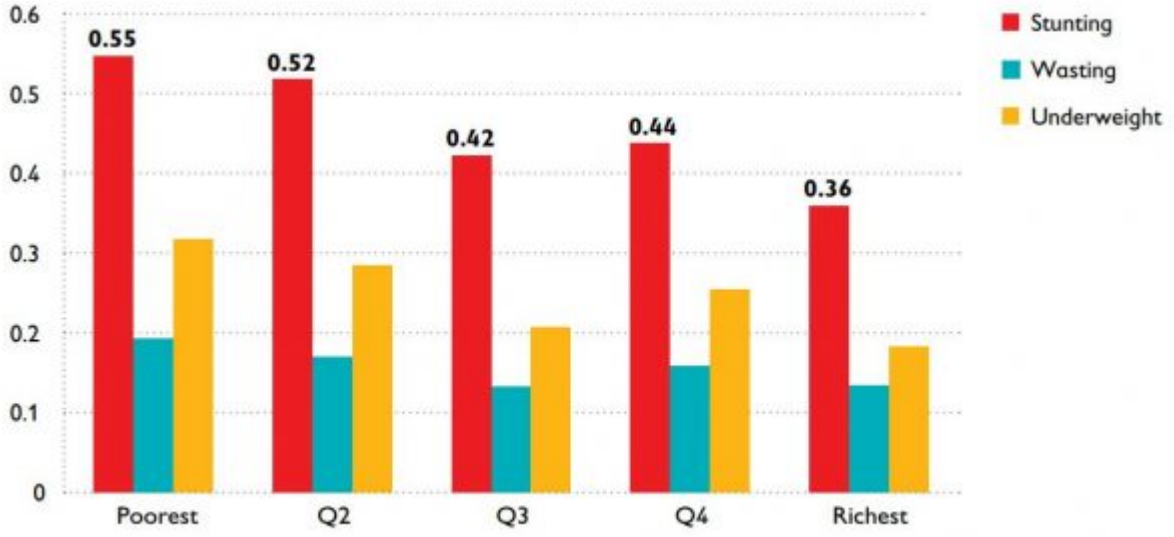


Table: World Bank (2015) Data source: HIES 2009-2010

Contrary to popular belief, food insecurity is not the main driver of such high child malnutrition rates in PNG. Rather, these rates are largely attributable to low rates of exclusive breastfeeding in the first six months; sub-optimal infant and child feeding practices, and a high prevalence of diseases associated with lack of access to safe drinking water and sanitation, such as diarrheal disease.

It is clear there is an urgent need for targeted investments to improve child nutrition in PNG, particularly those aimed at increasing the rate of exclusive breastfeeding, and promoting infant safe and hygienic infant and child feeding practices in the critical 1000 day period up to a child's second birthday.

Despite overwhelming evidence of the efficacy and cost-effectiveness of such interventions, they have not been prioritised by PNG's largest multilateral and bilateral donors to date. For example, Australia is PNG's largest bilateral donor, but its investment in nutrition has been extremely limited. According to a review conducted for Australia's Office of

Development Effectiveness, only 0.1% of Australia's official development assistance to PNG was allocated to nutrition in the years 2010 and 2012 (latest available data). Also, there is a tendency to focus on agricultural interventions, which do not tackle the underlying reasons why there are such high child undernutrition rates.

Australia's aid to PNG is intended to promote human and economic development. However, it is questionable whether Australia's aid investments will achieve this purpose in the longer term if around half of the country's population of working age continues to suffer cognitive and physical impairments from childhood undernutrition.

The Government of Papua New Guinea is taking positive steps to improve child nutrition with the revision of its National Nutrition Policy. However, it cannot tackle a challenge of this scale alone. There is an urgent need for donors, such as Australia, to reallocate technical and financial assistance to support targeted interventions to improve child nutrition. Otherwise, malnutrition will continue to undermine the great human and economic potential of our closest neighbour.

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Notes:

[i] According to the Papua New Guinea Household Income and Expenditure Survey (HIES) 2009-2010, the child stunting rate is 48.2% (Table 5.14, p. 90). However, it is estimated that the rate is now 49.5% based on modelling undertaken by the International Food Policy Research Institute, as published in the Global Nutrition Report 2016: From Promise to Impact, Ending Malnutrition by 2030, see Table A3.2, p. 120

[ii] Frontier Economics estimates that 4,174 girls and 5,200 boys will die prematurely as a result of childhood undernutrition. These deaths account for the majority of deaths for girls and boys under 5 years, representing 76% of the total child mortality in the country.

About the author/s

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