In 2014, following a number of years of high growth, the gross domestic product (GDP) per capita in Papua New Guinea (PNG) reached 8.0 percent. However, despite the relative robust economic growth, maternal and child undernutrition remain pervasive and damaging conditions in PNG. Undernutrition, which encompasses stunting, wasting, and deficiencies of micronutrients (essential vitamins and minerals), is one of the most significant causes of child mortality and morbidity. The stunting rate (low height-for-age, indicating chronic restriction of a child’s potential growth) for children under 5 in PNG was estimated at 46 percent in 2010. Despite GDP growth by 6.85 percent on average from 2005 to 2010 (Figure 1), the stunting rate remained basically stagnant from the 44 percent in 2005. Stunting in early life can have both short and long-term impacts on child and adult health. It is associated with poor cognition and educational performance in childhood.
Stunting is also associated with low adult wages, lost productivity, and increased risk of nutrition-related chronic diseases when accompanied by excessive weight gain later in life (Subramanyam, Kawachi et al. 2011).

**Key Findings:**

Evidence is critical to guide effective nutrition-related policies and improve the stagnant stunting rate in PNG. The latest national representative survey, PNG Household Income and Expenditure Survey (HIES) 2009-2010, was used to further shed light on the persistent determinants of under-nutrition across all socio-economic groups in PNG. This analysis found that the incidence of stunting was related to overall wealth, caloric intake, education level of household heads and incidence of diarrhea and malaria.

The stunting and underweight rate sharply rises in the first 24 months. Stunting rate rises quickly from 6 month onwards to 2 years and remains stable till 59 months. Figure 2 shows the association between malnutrition and age for both boys and girls under 5 years old. The nutrition status is worse for boys than for girls. A closer examination of stunting and age by wealth quintiles shows that the trend for the first 24 months is similar across the five quintiles. However, the difference is that the richer quintiles are able to mildly bend the curve while the prevalence of stunting rate plateaus for the poor quintiles (Figure 3). This implies that even in the better-off quintiles, children suffer from suboptimal breastfeeding and complementary food in the first 24 month.

Malnutrition in PNG is prevalent and severe, and varies across the regions. Not only are the overall rates high; the severe cases among the stunted, underweight and wasted children are also high at around 50 percent in each category (Figure 3). The incidence of undernutrition is not evenly distributed across the regions. The stunting rate is high across all the regions but extremely high at 61.5 percent in the Highlands Region.

In general, the regression results in Figure 1 shows that household wealth and geographic locations are all crucial factors that contribute to children’s malnutrition. More importantly, food quality, measured by protein intakes, has significant predicting power on child malnutrition. Food quality and geographic locations are correlated because in general, diet in highlands is low in protein. Further, children’s health status, more specifically, the incidence of malaria, has a significant correlation with child malnutrition.
Policy Recommendations

These policy recommendations are based on empirical findings, syntheses from broader international literature and local consultations.

1. Exclusive Breastfeeding and Complementary Food

The main window of opportunity to prevent stunting is the intra-uterine and postnatal periods, from conception until 24 months. The evidence suggests that in PNG, women lack knowledge of quality feeding practices even among better-off households. The high fertility rate and close birth gaps also make it difficult to give infants sufficient exclusive breastfeeding in the first six months. Significant reductions in stunting can be achieved through a comprehensive set of priority interventions during this critical development stage.

2. Interventions by Healthcare Workers

There is an imperative need to build human resource capacity in PNG to combat malnutrition challenges. Health workers can and should play a critical role in educating the public on how to improve nutrition outcomes. However, it will be difficult to conduct large-scale nutrition invention and monitoring at the facility level because the country has a shortage of nutritionists to steer the campaign. The capacity gap analysis, as part of the nutrition policy review, notes such capacity deficits at all levels of the PNG health system (National Department of Health 2013). This initiative requires strategy, financing and PNG leadership’s commitment.

3. Nutrition Education

Lack of access to information on proper nutrition was an important factor contributing to the high levels of malnutrition in PNG (Omot 2012). However, PNG’s key challenge to conducting large-scale nutrition education programs remains the significant shortage of nutritionists. Although there is a blueprint for human nutritionists and dietetics, it is yet to be adequately financed and implemented.

Future Agenda

To move toward more committed actions it is critical to improve the political environment, aligning multiple actors, and advancing policies and legislation. The government has made some progress. The National Nutrition Policy was recently endorsed by a number of departments in addition to the National Department of Health in early 2015, highlighting the political commitment of multisectoral interventions to improve nutritional outcomes in the country. However, a much stronger political commitment along with adequate financing are required to ensure the successful implementation of the policy. Monitoring and evaluation of nutritional programs are necessary to gather latest evidence on the effective and efficient ways to improve nutrition across different regions in PNG.

References


This HNP Knowledge Brief highlights the key findings from a study by the World Bank on the “Stagnant Stunting Rate despite Rapid Economic Growth Factors Correlated with Malnutrition among Children under Five in Papua New Guinea” by Xiaohui Hou.

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The Health, Nutrition and Population Knowledge Briefs of the World Bank are a quick reference on the essentials of specific HNP-related topics summarizing new findings and information. These may highlight an issue and key interventions proven to be effective in improving health, or disseminate new findings and lessons learned from the regions. For more information on this topic, or on PNG go to: www.worldbank.org/health or http://www.worldbank.org/en/country/png