

Preventing childhood stunting: Why and how?

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According to the Food and Nutrition Research Institute (FNRI), childhood stunting can affect one-third of under-five children annually,¹ or roughly 3.78 million Filipino children in 2015. A big chunk of this number comes from the poorest of the population, where one in every two children under five suffers from stunting. Sadly, the Philippines has shown little progress in reducing its prevalence in the last 20 years, despite its lasting consequences on one's health, learning, and economic productivity (DOST-FNRI 2016). While cost-effective interventions are known, the more crucial concern is how to make them work in the Philippine setting.

Drawing from the ideas of Herrin (2016), this *Policy Note* asserts the need to adopt a nutrition agenda focused on stunting prevention and the effective delivery and finance of its cost-effective interventions. The adoption of such agenda is a strategic move to ensure greater impact on health and education, and on inclusive growth in the long run.

What is the situation with respect to childhood stunting?

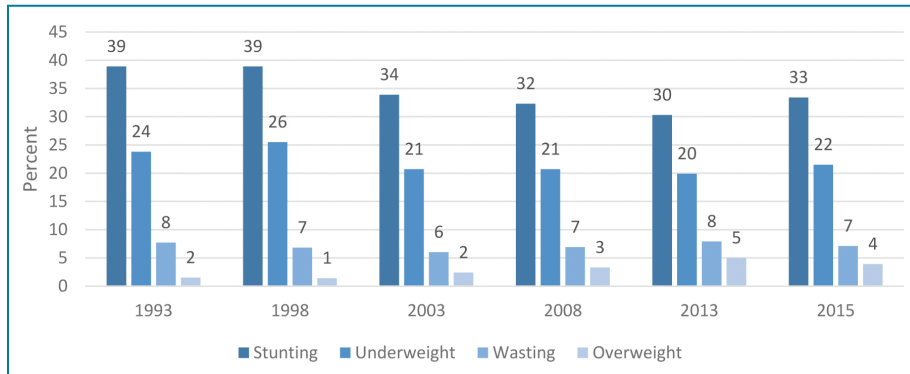
Surveys of FNRI from 1993 to 2015 show there have been little progress in the reduction of stunting cases in the country for the past 20

¹ Child malnutrition can manifest itself in several ways. However, its usual assessment is done through the measurement of a child's weight and height. Stunting reflects chronic undernutrition during the most critical periods of growth and development in early life. It is defined as the percentage of children aged 0–59 months whose height for age is below minus two standard deviations from the median of the World Health Organization (WHO) Child Growth Standards. On the other hand, wasting reflects acute undernutrition. It describes a recent or current severe process leading to significant weight loss, usually a consequence of acute starvation or severe illness. It is defined as the percentage of children aged 0–59 months whose weight for height is below minus two standard deviations from the median of the WHO Child Growth Standards. Meanwhile, underweight is a composite form of undernutrition that includes elements of stunting and wasting. It is defined as the percentage of children aged 0–59 months whose weight for age is below minus two standard deviations minus three standard deviations (severe underweight) from the median of the WHO Child Growth Standards. Overweight is defined as the percentage of children aged 0–59 months whose weight for height is above two standard deviations from the median of the WHO Child Growth Standards (UNICEF 2013).

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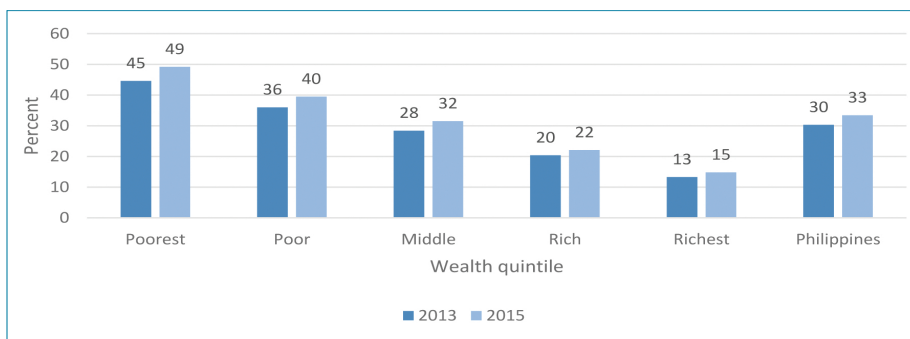
The author is a consultant at PIDS. The views expressed are those of the author and do not necessarily reflect those of the PIDS or any of the study's sponsors.

Figure 1. Prevalence of malnutrition among children aged 0–59 months



Source: Department of Science and Technology (DOST)-Food and Nutrition Research Institute (FNRI) (2015a and 2016)

Figure 2. Prevalence of stunting among children aged 0–59 months by wealth quintile, 2013 and 2015



Source: DOST-FNRI (2015a and 2016)

years (Figure 1). Furthermore, Filipino children from the poorest sector are the usual victims of stunting, wherein half of them aged 0–59 months are stunted (Figure 2).

² Contributions to the international literature based on longitudinal studies include studies under the Cebu Longitudinal Health and Nutrition Survey (CLHNS). Description of the CLHNS and key findings are described in Adair et al. 2011 and Borja 2013. Specific studies on the relationships among maternal age and nutrition, birth outcomes, childhood stunting, schooling performance, and risk of cardiovascular disease are included in the list of references.

What determines stunting and what are its consequences?²

There are several factors contributing to child stunting (Figure 3). For instance, mothers' nutrition and health status during pregnancy are crucial aspects that can influence birth outcomes.

Early pregnancy among female adolescents who have poor nutrition and micronutrient deficiency increases the risk of bearing a stunted child. While the poorest are the most affected, this can still be a concern among the middle-income earners.

Based on the 2013 National Demographic and Health Survey data, 1 in every 10 women

aged 15–19 years old has already begun childbearing (either she already has a child or is currently pregnant). Moreover, unplanned pregnancy happens to one in every three women below 20 years old who are reported having birth. This is relatively higher than the average of 28 percent among pregnant women of reproductive age.

Family planning can reduce the risk. However, while roughly 4 in every 10 women of reproductive age use a modern family planning method, only 2 in every 10 women

aged 15–19 do. Progress in this area of reproductive health has been slow.

A study conducted by Herrin (2016) also reveals problems concerning the poor quality of maternal care women are receiving throughout the course of pregnancy. Although facility-based deliveries have already increased, home deliveries by nonhealth providers have remained a popular practice among poor women. Unfortunately, essential procedures, such as skin-to-skin contact after birth, are not being practiced by these providers.

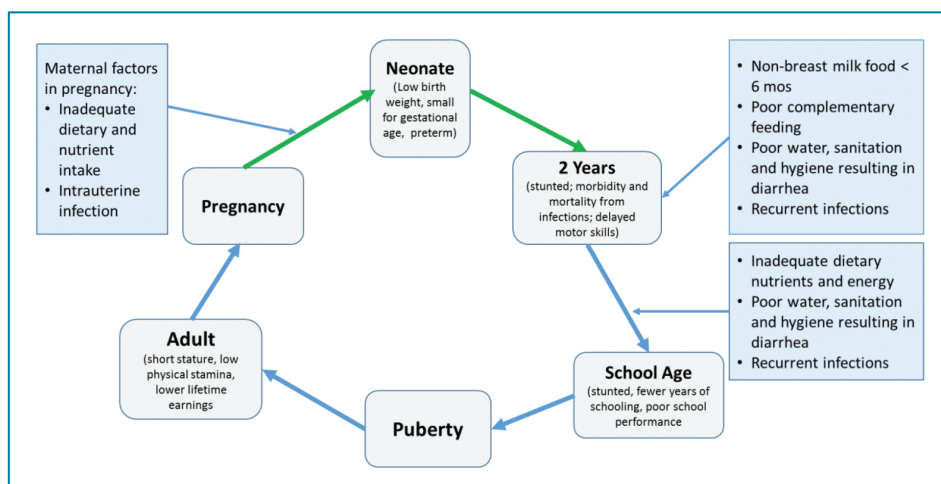
Aside from mother's poor health status during pregnancy, poor nutrition of the child and inadequate interventions, such as breastfeeding, micronutrient supplementation, and infection control, during the first 1,000 days of the child can also lead to stunting (Bhutta et al. 2013; Das et al. 2016) (Figure 4). Recurrent infections, such as diarrhea, can result to further stunting at school age.

In terms of breastfeeding, the number of mothers who were practicing exclusive breastfeeding remained low at 52 percent in 2013.

Worse, not all of them were able to exclusively breastfeed their children for six months straight. For instance, around 7 out of 10 mothers had exclusively breastfed their children in the first month of 2013. This number dropped to 2 out of 10 mothers by the sixth month.

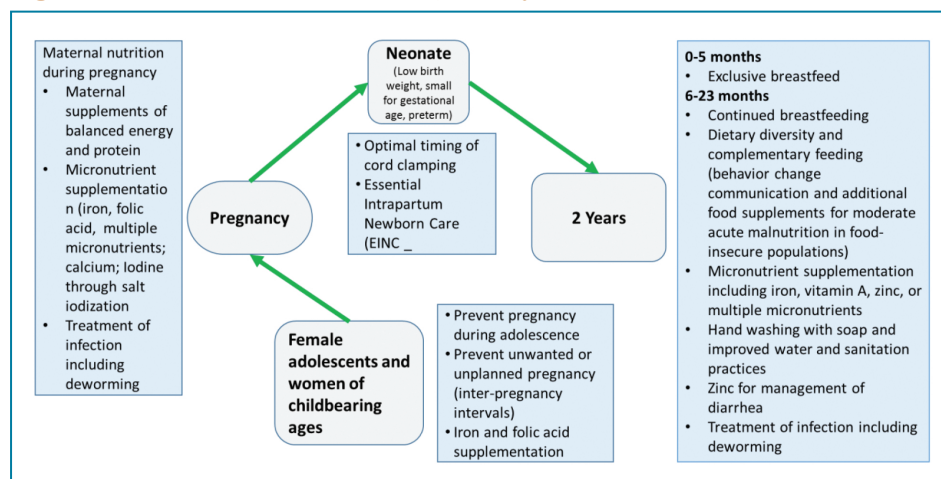
The figures on the diets of children aged 6–23 months old also show a low (22% in

Figure 3. The stunting syndrome



Source: Adapted from Prendergast and Humphrey (2014)

Figure 4. Interventions: The first 1,000 days



Source: Bhutta et al. (2013); Das et al. (2016); WHO (n.d.)

2011) and declining (16% in 2013) quality nutrient consumption. The reason for this is the high percentage of households that suffer from food insecurity. Ironically, this is higher among five-member households which are from the agricultural sector.

There had also been a decline in the number of fully immunized children (FIC), from 80 percent in 2008 down to 70 percent in 2013. The number is lower in the poorest households, where only 59 percent of the children are fully immunized. While a higher figure of 80 percent can be observed among the richest households, this is still below the 95-percent target of the Department of Health (DOH) for FIC (DOH 2012).

Furthermore, while children's access to diarrhea treatment does not appear to vary across the range of income earners, the quality of the treatment given must be reconsidered. Only 11 percent of those who had diarrhea were provided with zinc, a standard component for diarrhea management recommended by DOH, although more than half of them underwent oral rehydration salts/oral rehydration therapy.

Why has the progress in stunting prevention slow?

The coverage and quality of interventions, as well as the attitude of mothers and caregivers toward breastfeeding and childcare, may partly explain the lack of significant progress in child stunting prevention in the Philippines. However, assessments of

specific nutrition projects have also revealed various implementation issues of targeting, coordination, management structures, logistics, and sustainability (UNICEF 2009; Chiwara and Villate 2013). Moreover, recent sector-level assessment such as those of the National Nutrition Council (NNC) in its mid-term review of the *Philippine Plan of Action for Nutrition 2011–2016* (NNC 2012) and that of FNRI (DOST-FNRI 2015b) uncovered a number of problems including those related to local mobilization to implement the nutrition program and effective coordination by the NNC National Secretariat in a devolved setup. Considering all major insights from both the program implementation evaluations and sector assessments, one can already identify the reasons for the lack of significant progress in the country's nutrition agenda.

First, it seems the national nutrition plan attempted to accomplish implausible targets. For instance, it aimed to address all the dimensions of malnutrition, rather than focus on a specific nutrition problem. (See NNC 2012 and 2014.)

Second, while the plan targeted the vulnerable and nutritionally-at-risk population and segregated them by population groups, conditions, and areas, the means by which its targets were initially intended to be identified and located was not applied. For instance, the conditional cash transfer (CCT) program—*Pantawid Pamilyang Pilipino Program*—was once eyed for the identification of the priority population for nutrition

interventions. However, the CCT program was not employed during the implementation of the plan. The delivery of interventions was still implemented in various places through the local health system.

Third, and most important, is the issue of fragmented delivery and financing system that can result to the delegation of key services to the local government units (LGUs). There are currently 81 provinces, 143 cities, and 1,489 municipalities in the Philippines. Each of these localities has a local chief executive who has individual priorities and capacities as a leader. This makes it difficult to consolidate efforts for national impact in a sustained way.

Moving forward: An approach to meeting challenges

While the general assessments done by NNC and FNRI of the key factors hindering better performance of the nutrition sector are essentially correct, their proposed strategies and solutions are not likely to improve the situation. The main challenges are structural in nature, and a holistic approach is needed to address them.

In response to the challenges above, it is suggested to take advantage of the existing opportunities offered by, first, the increasing global interest in child stunting, and second, the existing platforms for the identification of the poor and the delivery and finance of health services. The following are the outlined approaches for consideration and discussion.

Adopt a more focused and strategic nutrition agenda

The increased international interest in the prevention of childhood stunting and the national commitment to the Sustainable Development Goals (SDG 2030) that include stunting as a goal provide an opportunity to craft a more focused and strategic nutrition agenda directed on stunting prevention in the Philippines.

There are various reasons for the adoption of a more focused nutrition agenda. First, stunting affects a large number of children—in 2015, one-third of the children aged 0–59 months representing 3.78 million children. This made the country ranked 9th among 80 countries with the largest number of stunted children (UNICEF 2013). Moreover, there is an international agreement on the following: (a) the “severe short- and long-term health and economic consequences of stunting, such as poor cognition and educational performance, low adult wages, lost productivity”; (b) the “definition and measurement and a standard that defines normal human growth which is applicable everywhere”; and (c) the provision of “a critical window—from conception to the first two years of life—within which linear growth is most sensitive to interventions related to feeding, infections, and psychosocial care” (Onis et al. 2013, pp. 6–7).

Use CCT as platform for identifying the poor and targeting for intensified nutrition interventions

Based on data available, childhood stunting is closely linked to poverty. Furthermore,

a DOST-FNRI (2015b) study revealed that the undernutrition experienced by children and pregnant and lactating women can be associated with the household income.

In order for those most at risk to benefit from nutrition interventions, there is a need to take advantage of the opportunity afforded by the CCT program. The CCT, in its current form, is already a platform to identify the priority target population for health and education programs. The same has been recognized and used as a platform by other countries in the implementation of their nutrition goals (Bassett 2008; IFPRI 2015; Save the Children 2015). A review of CCT programs with health components implemented in various countries shows that “CCT has been effective in increasing the use of preventive services, improving immunization coverage, certain health outcomes and in encouraging health behaviors” (Ranganathan and Lagarde 2012, p. 595).

However, studies on CCT in the Philippines show its limited impact on child nutrition (Onishi et al. 2014; Orbeta et al. 2014). One possible explanation for this is that supply-side interventions that make services readily accessible and affordable are lacking to support the demand-side conditionalities (recall gaps in maternal and child care). The importance of supply-side interventions has been suggested to be an important part of the design for making CCT more nutrition sensitive (WB 2006; Bassett 2008; Ranganathan and Lagarde 2012; Save the Children 2015).

Use existing platforms for delivery and financing of services

All CCT beneficiary households are enrolled in PhilHealth with the full premium paid for by the national government. PhilHealth currently has maternal and newborn care package where CCT members can avail of services from accredited public and private health facilities. It also has the primary benefit package where maternal and child health services can be obtained. However, the delivery of these packages to the CCT beneficiaries is uneven across local health systems, in terms of coverage and quality. This clearly reflects the LGUs’ differing priorities and capacities. Hence, there is need for a mechanism that should set the quality of interventions that should be enjoyed by the beneficiaries.

First, there is a need to revisit PhilHealth’s existing benefit packages and try to incorporate the critical interventions suggested by Bhutta et al. (2013) and Das et al. (2016). These critical interventions include the following:

1. Maternal nutrition and care during pregnancy and essential intrapartum and newborn care
2. Infant and young child feeding including behavior change communication and delivery of nutrient-dense and safe food supplements
3. Micronutrient supplementation in children at risk and management of childhood illnesses particularly acute respiratory infection and diarrhea; child immunization and deworming

4. Reproductive health and family planning to delay early pregnancy, space pregnancies, and limit births as desired by couples.

Second, there is a need to expand financing for nutrition interventions. In 2014, PhilHealth spent around PHP 83 billion in health-care benefits, which represented 14 percent of total health expenditures. During one of the roundtable panel discussions of the Ayala-UP School of Economics Economic Forum, on April 7, 2016, it was raised that there is a need for PhilHealth to expand its funds by increasing the premium contributions of members as well as government contribution in order for it to provide more assistance to its beneficiaries.

Third, with the larger funds available, PhilHealth can then purchase the package

of health and nutrition interventions for delivery to beneficiaries (Picazo et al. 2015). For example, PhilHealth can contract a health service delivery network consisting of public and private providers to deliver the package of services to the identified CCT beneficiaries.

How does the approach address the challenges?

The approach suggested is expected to address the fragmentation of the service delivery and financing system of the LGUs. A uniform level and standard of interventions shall be available to CCT beneficiaries across areas. The service delivery network will expand by including the private providers either on their own or in partnership with local government, and contracts can be designed to provide incentives for providers to reach remote areas.



According to the Food and Nutrition Research Institute, childhood stunting can affect one-third of under-five children annually, or roughly 3.78 million Filipino children in 2015. (Photo by Save the Children International)

The problems of coordinating with LGUs in planning and expansion of health and nutrition staff to be hired, trained, and supervised, and the fragmented logistics system arising from individual LGU procurements will now be transferred to contractors who will take care of inputs to deliver outputs. These contractors would also develop the administrative information system to account for services delivered, which could be used for national planning and programming. For policy, it is crucial to develop capacity for rigorous impact evaluation (which can also be outsourced) and for FNRI to continue its data collection and analysis of key indicators at the national level. 📄

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