

## Comment



# China's Progress and Challenges in Improving Child Nutrition

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China has achieved the first Millennium Development Goal (MDG) of halving, between 1990 and 2015, the proportion of people who suffer from hunger. Particularly impressive progress has been made to improve the nutritional status of Chinese children in recent years.

The international scientific community has recognized stunting, with its long-term impact on the development of children as well as economic performance, as a major nutritional challenge facing families and countries<sup>[1]</sup>. In this issue, Yu Dongmei et al., drawing from China's high-quality nutrition surveillance data, report on major nationwide reductions in stunting prevalence in children younger than 5 years of age, from 17.2% in 2002 to 8.1% in 2013, regardless of sex or urban/rural residence<sup>[2]</sup>. Progress was especially marked in rural areas, where stunting decreased by 13.6%, compared with reductions of 3.6% in urban areas, thus decreasing the inequity gap. Despite this great progress, large inequities remain, with a more than nine-fold higher risk (OR 9.44) of stunting occurring in poor rural areas than in large cities. Stunting affects different age groups differently: It reaches a peak in children between 1 and 2 years of age, with double the risk when compared with children younger than 6 months (OR 2.01), and gradually tapers off as children reach their fifth birthday (OR 1.69). Redoubled efforts are now needed to further reduce stunting by 40% from 2012 to 2025 in young children and in rural areas in particular, as called for by the recently launched Sustainable Development Goal 2 (SDG2) to end hunger, achieve food security, improve nutrition and promote sustainable agriculture.

With food security guaranteed throughout most of the country, acute malnutrition has become an relatively small problem in China<sup>[3]</sup>. Indeed, between 2002 and 2013, the wasting prevalence reduced further by one third, from 2.7% to 1.9%. Wasting affects the youngest children most, with

age-standardized wasting prevalence of 3.1% and 2.2% in children 0 to 5 months and 48 to 59 months of age, respectively. Without differences in sex or residence, the data suggest that acute malnutrition in China is mainly driven by poor feeding knowledge and behaviours rather than by cultural preferences or poverty.

With the launch of its Nutrition Improvement for Children in Poverty Areas Programme in 2012, the National Health and Family Planning Commission (NHFPC) started promoting Ying Yang Bao (a soybean-based micronutrient-fortified food supplement with a demonstrated effect on the reduction of anaemia and other micronutrient deficiencies) at scale as one of its strategies to improve the nutritional status of China's children<sup>[4]</sup>. To date, with the allocated government funds, around 4 million children in 341 poverty counties have enjoyed the benefits of Ying Yang Bao. Even though supplementation programmes help reduce major micronutrient deficiencies in the short run, they need to be complemented by localized approaches to improve and sustain their gains. The development of recipes for nutritious meals is a promising complement<sup>[5]</sup>.

Government attention to the critical importance of breastfeeding has recently increased. From 2002 to 2013, exclusive breastfeeding rates dropped by around one third, reaching an all-time low of 20.8% in 2013<sup>[6]</sup>. In the same period, however, rampant marketing of breastmilk substitutes led to increases in infant formula sales, from US\$1.1 billion in 2002 to US\$9.3 billion in 2013 and to a projected US\$12.7 billion in 2015<sup>[7]</sup>. With China's State Council aiming to raise the exclusive breastfeeding rate to 50% by 2020, the Government of China stepped up to the challenge, amended the Advertising Law in April 2015, thus 'prohibiting to publish advertisements of infant formula, beverage and other food, which claim its function as full or partial replacement of breastfeeding, on mass media or in public places'<sup>[8]</sup>,

started fining companies breaking the International Code of Marketing of Breastmilk Substitutes<sup>[9]</sup> and reinvigorated the Baby-Friendly Hospital Initiative<sup>[10]</sup>. In support of the State Council's goal, UNICEF is working with NHFPC and its implementing partners on a breastfeeding campaign—'10 m<sup>2</sup> of Love', aiming to reposition breastfeeding as the social norm, promote breastfeeding in public places and at work and provide peer-to-peer lactation counselling<sup>[11]</sup>.

Mounting evidence indicates that nutrition, sanitation and hygiene interventions need to go hand in hand to sustainably address malnutrition<sup>[12]</sup>. *The Lancet's* Maternal and Child Undernutrition Series in 2008 reported that an estimated 99% coverage with hygiene interventions could reduce stunting prevalence at 24 months by 2.4%<sup>[1]</sup>. Although China has achieved its MDG commitment of halving the population without access to proper sanitation, one quarter of the population lacks adequate sanitation facilities today, the majority concentrated in poor rural areas. Programmatic advances in nutrition (and immunization) can be offset by environmental enteropathy, a subclinical enteric condition hypothesized to be caused by repeated or chronic exposure to enteropathogens and malnutrition<sup>[13]</sup>. The delivery of integrated nutrition, sanitation and hygiene interventions is no longer just an interesting concept but has become paramount to achieve and sustain nutrition goals.

China's enormous success in reducing malnutrition in children indicates that the target of reducing by 40% the number of stunted children younger than 5 years by 2025, as per SDG2, is within reach. UNICEF is committed to continue supporting the Government to increase exclusive breastfeeding rates and ensure a minimum acceptable diet and proper sanitation and hygiene for all China's children so that they can grow and develop to their full potential.

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Received: February 18, 2016;

Accepted: March 10, 2016

## REFERENCES

1. Black RE, Victora CG, Walker SP, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet*, 2008; 371, 243-60.
2. Yu DM, Zhao LY, Yang ZY, et al. Comparison of undernutrition prevalence of children under 5 Years in China between 2002 and 2013. *Biomed Environ Sci*, 2016; 29, 165-76.
3. Nie FY, Amit Wadhwa, Wang WJ, et al. Analysis of food security and vulnerability in six counties in rural China. Beijing, China Agriculture Science and Technology Press, 2012.
4. Huo J, Sun J, Fang Z, et al. Effect of home-based complementary food fortification on prevalence of anemia among infants and young children aged 6 to 23 months in poor rural regions of China. *Food Nutr Bull*, 2015; 36, 405-14.
5. Wu Q, van Velthoven MHMMT, Chen L, et al. Improving the intake of nutritious food in children aged 6-23 months in Wuyi County, China: A multi-method approach. *Croat Med J*, 2013; 54, 157-70.
6. Bureau of Disease Prevention and Control, National Health and Family Planning Commission of the People's Republic of China. The report on status of Chinese nutrition and chronic diseases 2015. Beijing, People's Medical Publishing House, 2016.
7. Agriculture and Agri-Food Canada, International Markets Bureau. Global pathfinder report: Baby food, market indicator report, 2011. <http://publications.gc.ca/pub?id=9.571314&sl=0>. [2013-04-3]
8. National People's Congress of the People's Republic of China. [http://www.npc.gov.cn/npc/xinwen/lfgz/flca/2014-08/31/content\\_1876199.htm](http://www.npc.gov.cn/npc/xinwen/lfgz/flca/2014-08/31/content_1876199.htm). [2014-08-31]
9. Wang ZQ. [http://www.chinadaily.com.cn/business/2015-12/03/content\\_22612188.htm](http://www.chinadaily.com.cn/business/2015-12/03/content_22612188.htm). [2015-12-3].
10. National Health and Family Planning Commission of the People's Republic of China. <http://www.nhfpc.gov.cn/fys/s3586/201511/5a8261bb835540f6b05fe4200f8ea013.shtml>. [2015-11-19]
11. UNICEF. <http://unicef.cn/10m2/>. [2016-03-1]
12. Humphrey JH. Child undernutrition, tropical enteropathy, toilets and handwashing. *The Lancet*, 2009; 374, 1032-5.
13. Ji Gordon, KG Dewey, DA Mills, et al. The human gut microbiota and undernutrition. *Science Translational Medicine*, 2012; 4, 927.