

Brief on Level and trend of children's health and nutrition status in Nepal: Evidence from Demographic and Health Surveys (NDHS)

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Background

Since 1996, the Nepal Demographic and Health Survey (NDHS) has been conducted every five years from the Ministry of Health and Population (MoHP) with the technical and financial support from the United States Agency for International Development (USAID). The 2016 NDHS is the fifth round of this survey implemented in Nepal as part of the worldwide DHS. The most recent NDHS 2016 included a nationally representative sample of 12,862 women (98% response rate) and 4,063 men (96% response rate) of age 15-49, which covers urban, rural and all seven provinces. Major information covered in NDHS includes fertility, family planning, maternal and child health, and mortality, nutrition, malaria and human immunodeficiency virus (HIV). Women interviewed in NDHS were also asked additional questions about health and nutrition of their children under age five.

Objectives

This report aims to present the trend of health and nutrition status of children in Nepal and to provide policy recommendations.

Methodology

This report reviewed NDHS 2016 to examine the current level of child health and nutrition status and previous four rounds of NDHS (1996, 2001, 2006 and 2011) to examine trends. Childhood immunization, childhood illnesses (diarrhea, respiratory infection/pneumonia) and related treatment seeking behavior, childhood malnutrition, infant and young feeding practices, micronutrient supplementation, breast-feeding and childhood mortality (neonatal, infant, child and under-five mortality) are the key indicators examined in this report.

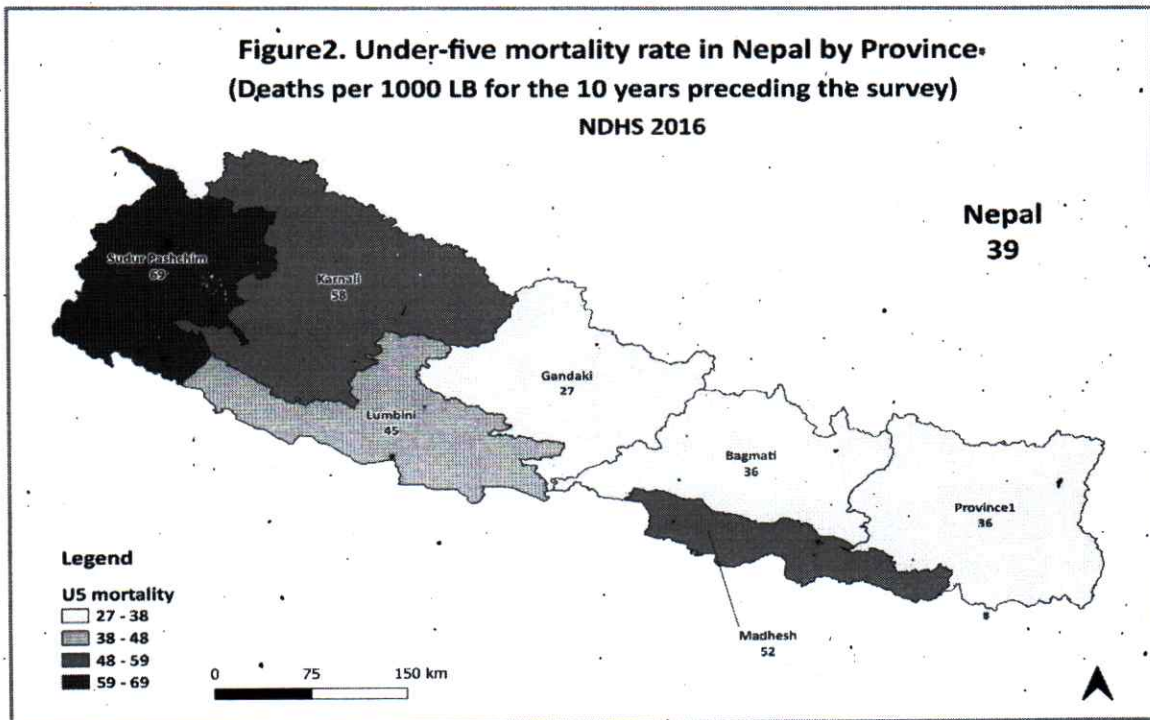
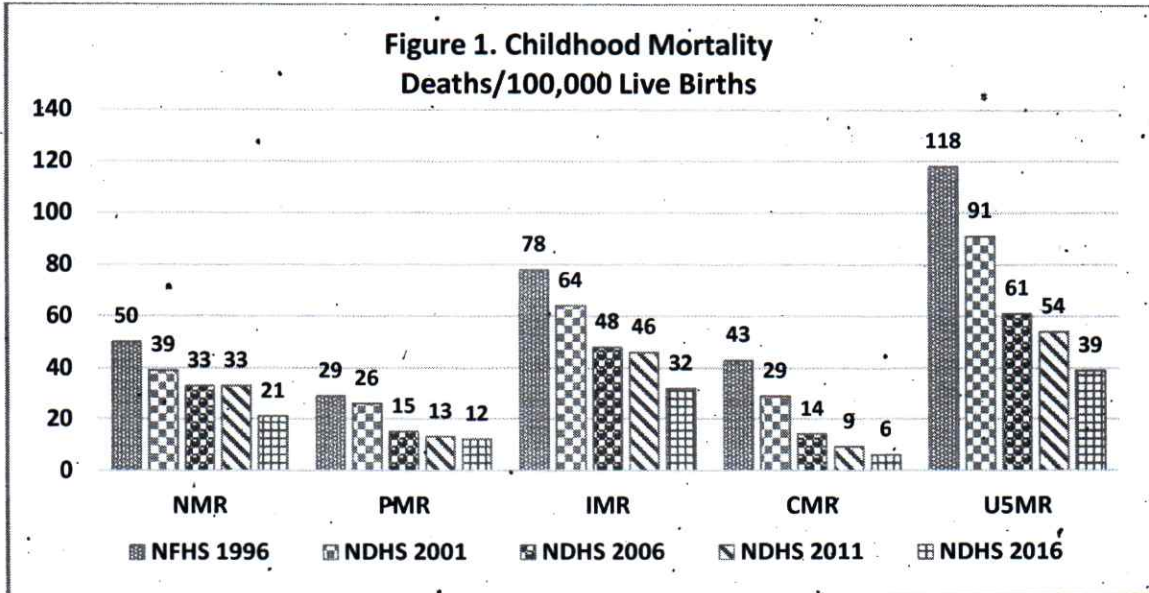
Summary of findings

Nepalese children are living healthier lives than ever before. Neonatal, infant and child mortality continue to decrease, child vaccination is slowly rising, and fewer children are malnourished. However, Nepal still lags behind its neighbors in South Asia in many of these key indicators. Greater effort is therefore required to meet the SDG target of child health and nutrition indicators. Indicator-wise findings and potential interventions to improve the child health and nutrition status in Nepal are summarized below.

Findings on childhood mortality

- Neonatal mortality rate (NMR) has been decreased to 21 per 1,000 LB in 2016 from 50 per 1,000 LB in 1996 (a 58% point reduction; Annual Rate of Reduction, ARR-2.9%)
- Under-five mortality rate (U5MR) decreased to 39 per 1,000 LB in 2016 from 118 per 1,000 LB in 1996 (a 67% point decrease; ARR-3.3%)

- To achieve the SDG target by 2030 Nepal has to decrease under-five mortality rate by 49% (at ARR of 3.5%) and neonatal mortality rate by 43% (at ARR of 3.1%) from 2016 level
- It is a challenge for GoN to meet the SDG targets of neonatal and under-five mortality and need to accelerate implementation of targeted interventions



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Recommendations: Childhood Mortality

Common cause of neonatal mortality are infection, birth asphyxia and prematurity and that of under-five mortality are respiratory infection, diarrhea, malaria and birth complications, to prevent deaths from these causes following actions should be taken:

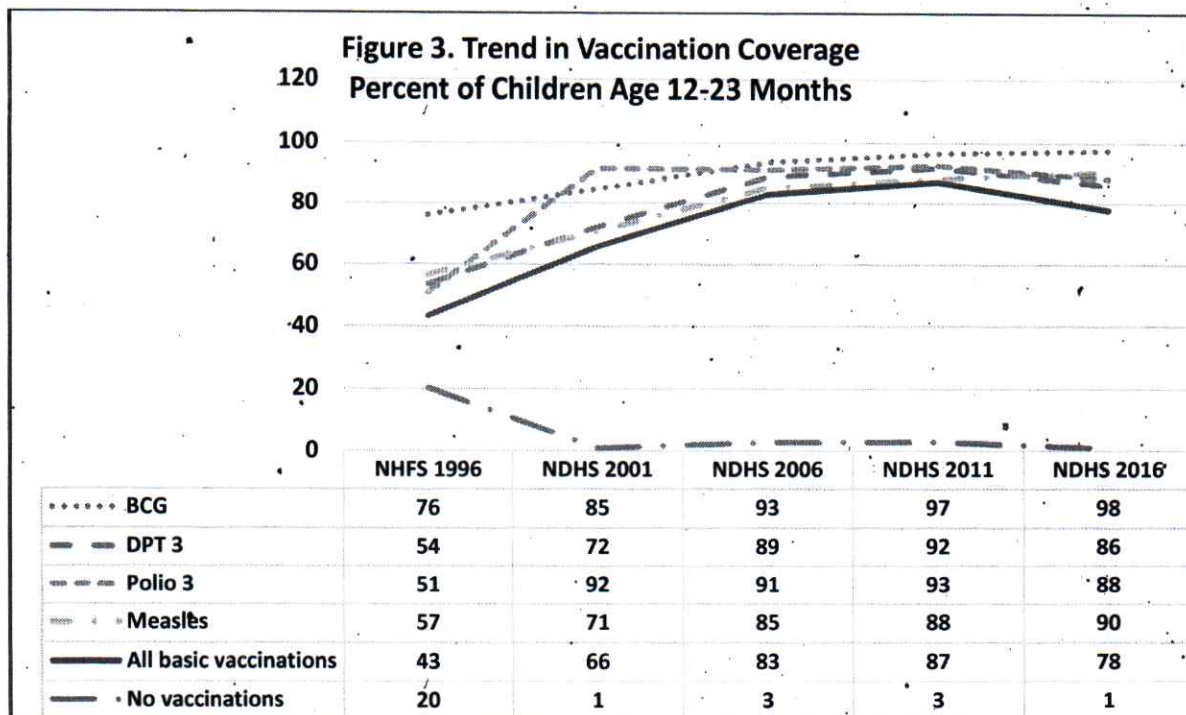
- Expand birthing centers (BC) up to remote and hard to reach areas to substantially increase institutional delivery
- Establish BC in strategic locations and make them functional either for basic or for comprehensive emergency obstetric care service
- Implement well known newborn interventions such as, application of chlorhexidine for cord care, resuscitation for newborn, management of newborn infection, use of antenatal corticosteroids and kangaroo mother care
- Re-inforce behavior change communication through various channel to improve parenting skill for newborn care, particularly among poor, uneducated, minority and hard to reach population
- Prepare a focused and sustained quality improvement action plan to make facilities ready for critical care these actions include quality antenatal, delivery, postnatal and neonatal care, supply of well-trained health care professional, low-cost medicines and access to water and sanitation

Findings on immunization

- Over the last two decades, full immunization in Nepal has been increased from 43% in 1996 to 78% in 2016 (81.4% point increase; annual rate of increase, ARI-4%) however, the full immunization coverage has been declined by almost 10% point (from 87% in 2011 to 78% in 2016)
- To meet the SDG target of full immunization (95% by 2030), Nepal has to increase the full immunization coverage by annual rate of increase (ARI) of 1.5% during 2016-2030
- Full immunization coverage varied across provinces (highest in Gandaki-93%) and lowest in Madhesh (65%)
- Full immunization coverage among children age 12-23 months increased with mother's education (68% among uneducated mother and 91% among mother with SLC or higher education)

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Recommendations: Immunization

Immunization is key to child survival and missing routine immunization can be life threatening to infant and child, therefore MoHP should continuously implement innovative interventions to accelerate full immunization in Nepal.

- Work closely with development partners and other government stakeholders to narrow the full immunization gaps particularly among poor, marginalized and less educated groups in all geographical areas
- Make sure that every child who come for vaccination is not turned away and receive desired vaccine at appropriate time
- Ensure that all level of health facilities have the required resources such as skilled and motivated vaccinators, supply of vaccine and supportive community engagement
- Pay more attention to communicate the benefits and risk of vaccines and to gain sustained public trust in vaccination
- Create awareness to educate family members and parents on when and where to bring their children for vaccination, duration between doses and importance of not missing
- Integrate immunization program with other maternal and newborn health program to increase full immunization and reduce disparity of full immunization across socio-demographic groups

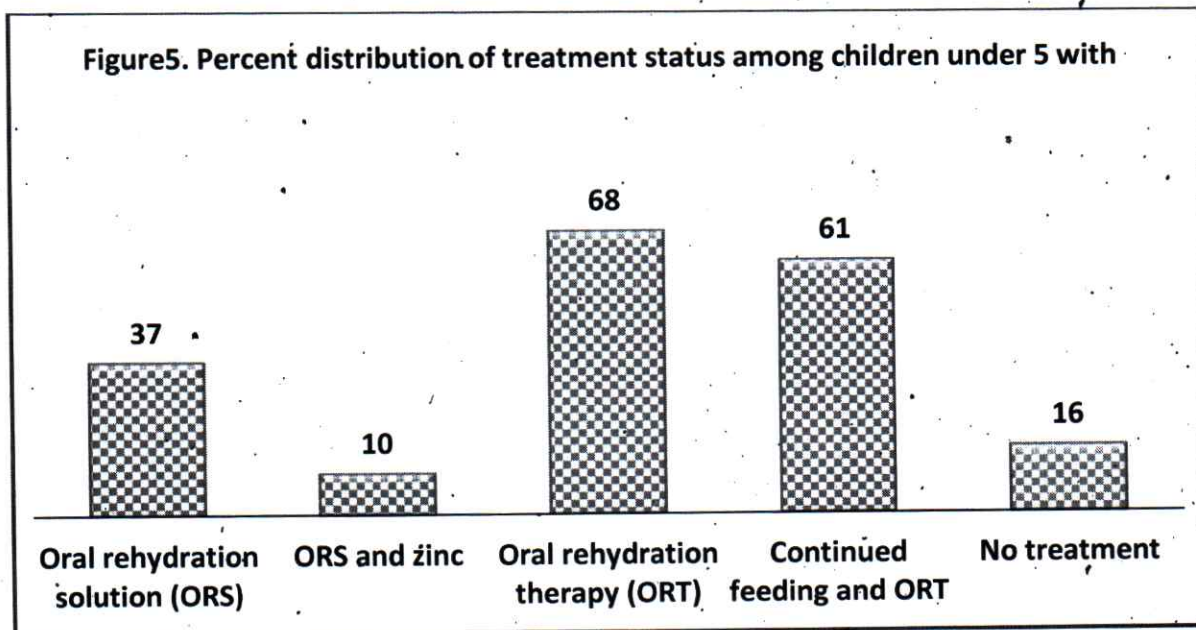
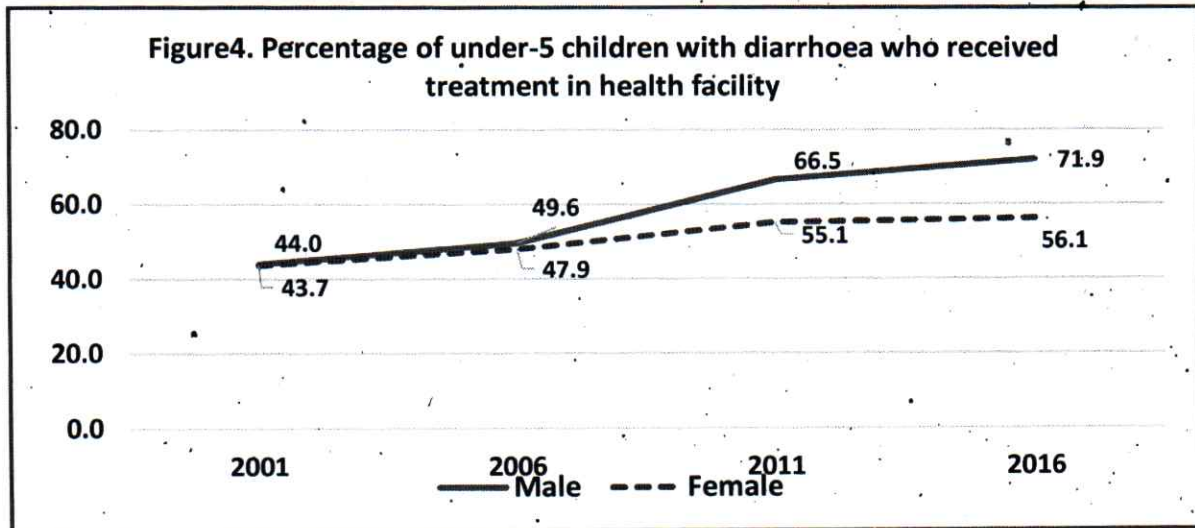
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Findings on childhood illness: Diarrhoea

- Nepal has experienced an impressive reduction in prevalence of diarrhea among under-five children (from 21.3% in 2001 to 7.7% in 2016 among male and from 19.5% to 7.5% among female) but only 72% male child and 56% female child sought treatment from health facilities and 16% children did not get any treatment (even oral rehydration solution, ORS)



Recommendations: Diarrhoea

- Explore further to examine reasons for poor treatment of diarrhea and develop strategy towards achieving universal use of ORS for treatment of diarrhoeal diseases

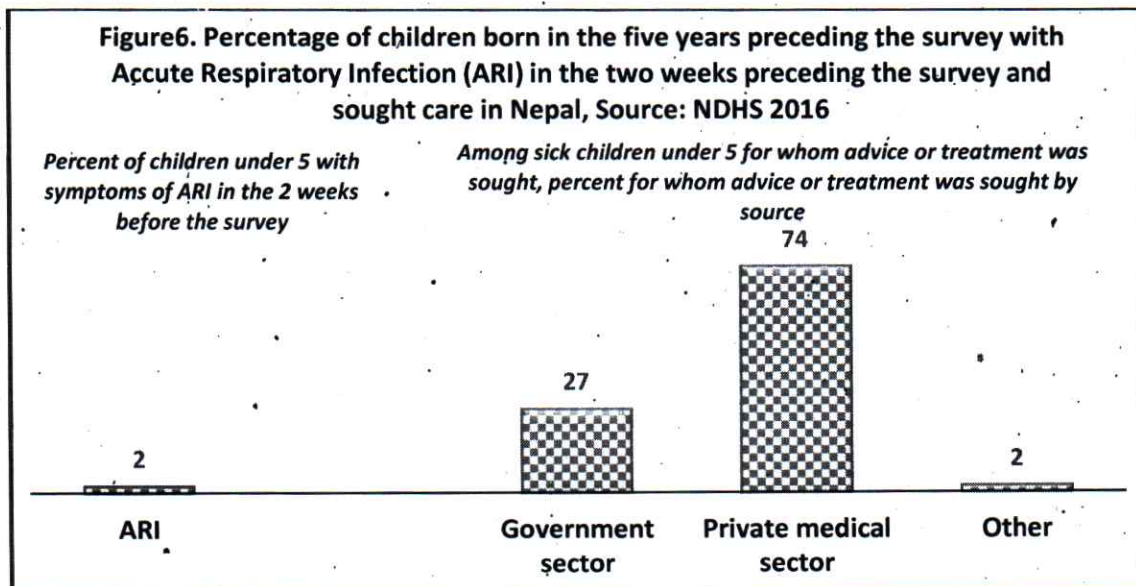
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- The interventions related to universal use of ORS should be focused on female, uneducated and poor households
- Improve access to medicine (ORS, Zinc and antibiotics etc.), food, and clean water as well as public education through health worker and community health volunteer (CHV) to prevent deaths of children under-five due to diarrhoea

Findings on childhood illness: ARI/Pneumonia

- Prevalence of ARI among children under-five in Nepal decreased from 5% in 2011 to 2% in 2016 (a 60% reduction), however ARI and pneumonia are still a major public health problem and leading cause of death among these children
- ARI prevalence is highest among children age 6-23 months (8%) and decrease with household wealth (3% among children living in household with bottom two wealth quintile and 1% in highest wealth quintile) and varies across provinces and educational status of mothers
- Treatment for ARI was most commonly sought from private medical store (74%) and only 23% were taken to government facilities



Recommendations: ARI/Pneumonia

- Treatment of ARI and pneumonia using the antibiotics is the key strategy for preventing death due to respiratory diseases, but excessive use of antibiotics might have adverse effect on health of children
- Adopt effective approaches to regulate the uncontrolled use of antibiotics to prevent the children from resistant to antibiotics
- Low birth weight, malnutrition, and lack of breast-feeding are important risk factors for childhood ARI and pneumonia, therefore, nutritional interventions such as preventing malnutrition and low birth weight, early breastfeeding, vaccination,

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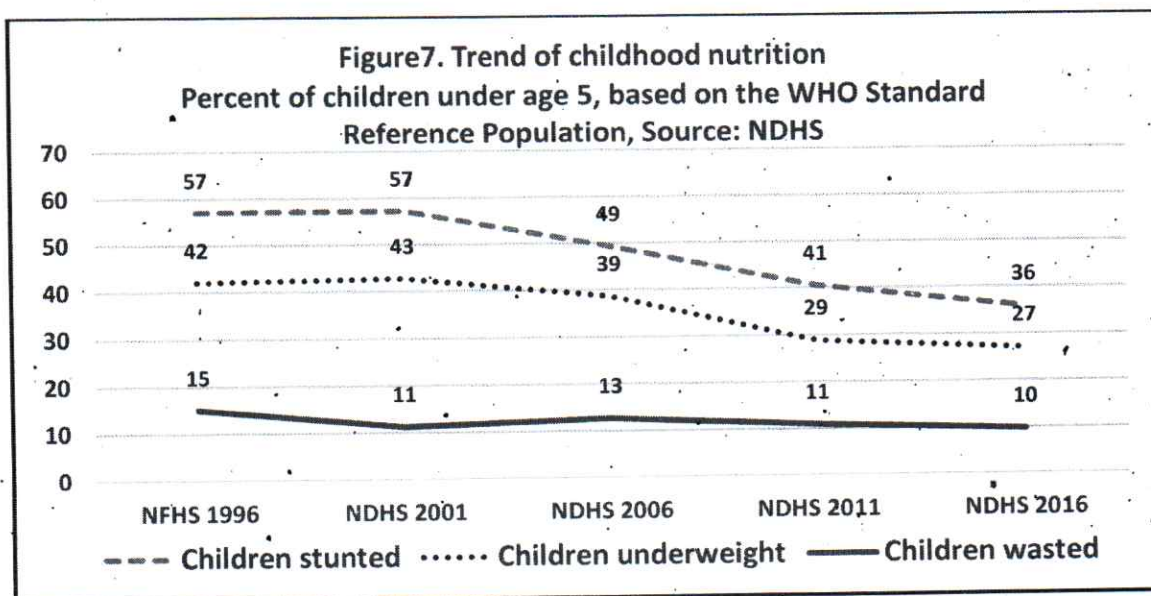


access to clean water, good nutrition and limited exposure to air pollution should be implemented to reduce deaths from ARI and pneumonia

- Supply trained health workers equipped with adequate medicines and equipment within easy reach of poor and uneducated families to treat childhood ARI and pneumonia effectively

Findings on childhood nutrition status

- More than one-third (36%) children under five-year age were stunted, one in every ten (10%) children were wasted and slightly more than a quarter (27%) children were underweight in 2016
- Prevalence of stunting was substantially decreased from 57% in 1996 to 36% in 2016 (37% point decline; ARR-1.9%), similarly, prevalence of underweight declined from 42% to 27% (36% decline; ARR-1.8%) during the same period, however prevalence of wasting remained same (around 10%) during 2001 to 2016
- Chronic malnutrition is most prevalent in Karnali province (55%), Lumbini province (39%) and Madhesh (37%) and it is lowest in Gandaki and Bagmati provinces (29%)
- Children of un-educated mother and those living in poorer households suffer more than the educated and wealthier families
- The average ARR of stunting and underweight over 20 year period between 1996 to 2016 were 1.9% and 1.8% respectively, which are much less than the required 4.2% and 5.8% ARR respectively during 2016-2030, therefore, Nepal is less likely to achieve SDG target for reducing childhood stunting, underweight and wasting in Nepal
- Only 66% children age 0-5 months are exclusively breastfed for an average of 4.3 months



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Figure 8: Percent distribution of children under 5 stunted, based on 2006 WHO Child Growth Standards

Source: Nepal DHS, 2016

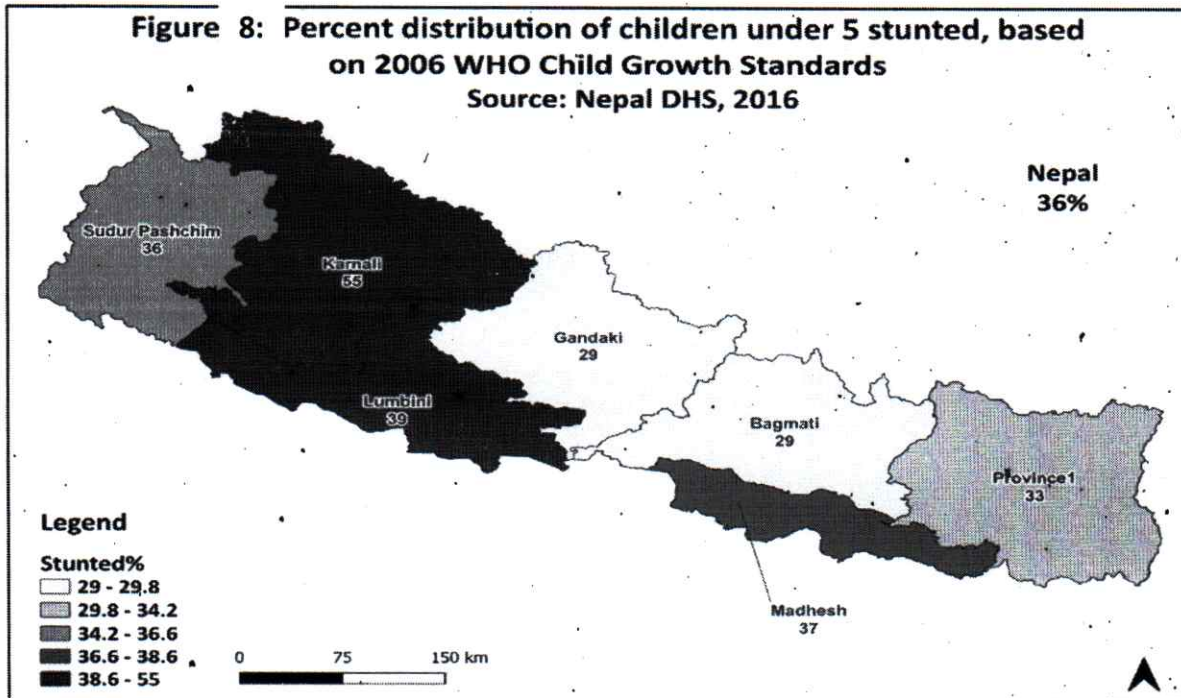


Figure 9. Trend of anemia status among children
Percent of children age 6-59 months with anaemia
Source: NDHS

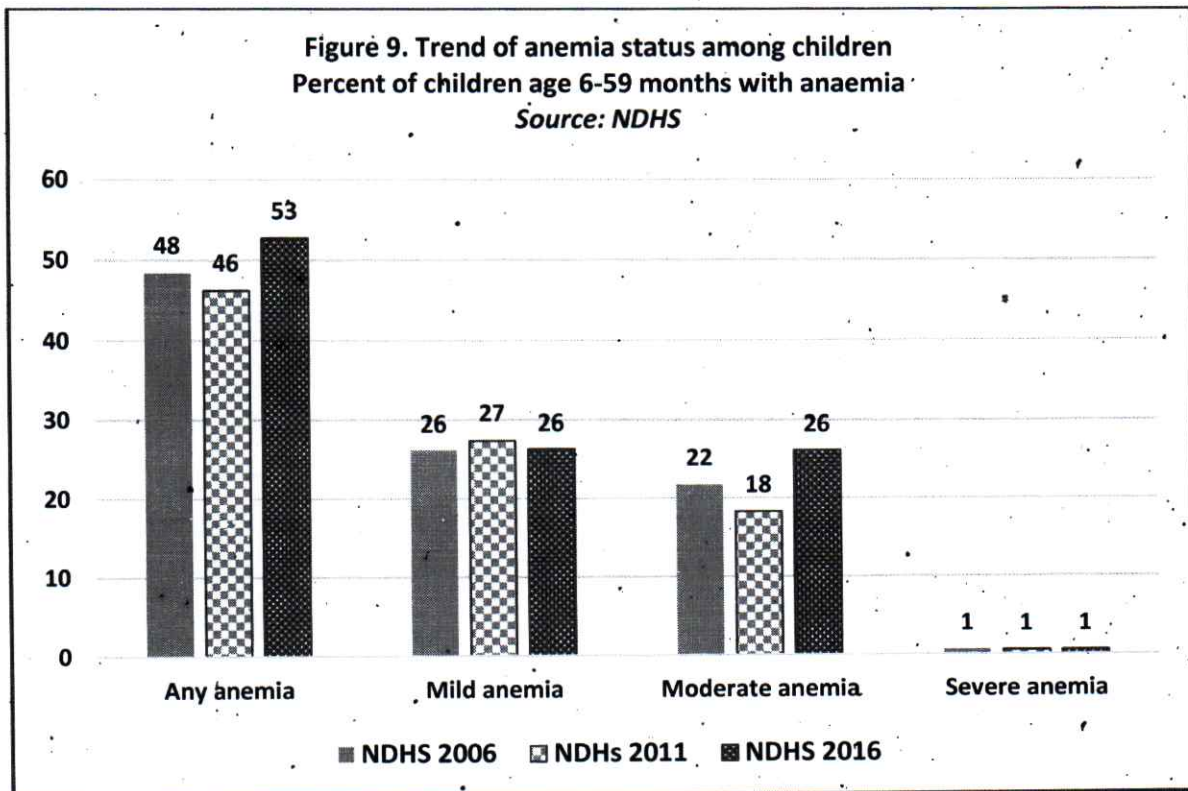
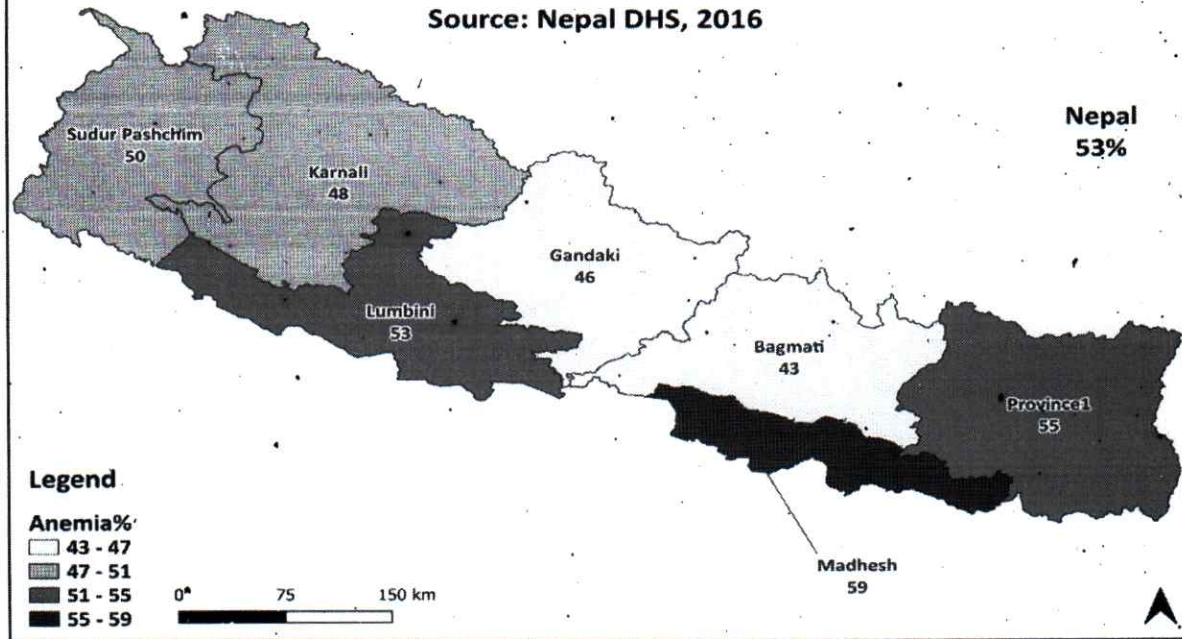


Figure 10 Percent distribution of children age 6-59 months with any anemia by Province in Nepal

Source: Nepal DHS, 2016



Recommendations: Nutrition

- Exclusive breastfeeding, complementary feeding, micronutrient supplementations, adequate and balanced diet during pregnancy, and treatment of acute malnutrition are the potential nutrition-specific interventions that have direct impact on nutrition status of children
- Increase coverage of nutrition-specific interventions listed above across the population through both public and non-government (NGO) sector
- Counsel to mothers effectively to improve child feeding practices and disseminate messages about child feeding practices on cell phone, radio and television to promote good feeding practices
- Through the effective mass media advice mothers to start breastfeeding within an half hour of birth, and to provide only breast milk for the first six months
- Implement appropriate community-based interventions for children with severe acute malnutrition to institutionalize management of acute malnutrition in the community,
- Institutionalize calcium supplementation during pregnancy nationwide to prevent pre-eclampsia, eclampsia and gestational hypertension to prevent fetus deformity
- Implement nutrition-specific interventions together with nutrition-sensitive interventions (such as, food security, family planning, proper water, sanitation and hygiene, women's empowerment) particularly to uneducated, poor and vulnerable children to substantially reduce stunting
- Multi-sectoral collaboration, deployment of trained staff in the community, and effective communication for changing behavior of vulnerable people are key to improving nutritional status of children

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