

NUTRITION

A priority area in HPNSDP 2011-2016

Although Bangladesh has made considerable progress during the past two decades, the prevalence of malnutrition is still one of the highest among the developing countries. The country is on track to attain most of the Millennium Development Goals relating to human development, such as reducing child and maternal mortality. However, these improvements are yet to be translated into positive changes in terms of maternal and child nutrition.

Public Health Nutrition Programs under MoHFW

Under the HNPSP (2003-2011), there were two operational plans (OPs) named National Nutrition Program (NNP) and Micronutrient Supplementation (MNS). Limited facility-based nutrition services were provided through MNS, and community-based nutrition services were delivered by NNP. However, the services provided by NNP were independent of mainstream health services, with duplication of field-level activities under these two operational plans; scaling up of services throughout the country appeared to be very costly. Consequently, under the current sector program HPNSDP (July 2011-June 2016), the MoHFW has started to accelerate reduction of the persistently high rates of maternal and child undernutrition by mainstreaming implementation of high-impact, evidence-based nutrition services into the health and family planning services, along with scaling up of the provision of community-based nutrition services throughout the country. Under the OP-National Nutrition Services (NNS) –which is housed in the Institute of Public Health Nutrition (IPHN), both DGHS and DGFP are streamlining and strengthening the nutrition services by using regular manpower.

Four hundred and eighty-two medical officers of the UHCs are already designated as Medical Officer (Public Health Nutrition) who will be responsible for coordinating all activities of NNS at the upazila level. The NNS shall cater all the services of NNP and MNS. The NNS is scaling up services, including (i) facility-based services, (ii) community/area-based nutrition activities, (iii) human resource development, (iv) providing micronutrients to people, (v) operational research

and surveys, (vi) surveillance, (vii) monitoring and evaluation, and (viii) nutrition information system.

Capacities of the UHCs, district hospitals, and community clinics as well as facilities of the DGFP, e.g. MCWCs, will be strengthened through establishing nutrition units. Eighty upazilas will be brought under this service this year. Mass awareness will also be created through behavior change communication (BCC) and school nutrition education program. Two schools from each of the 122 upazilas will come under this awareness program, and students and teachers will be made aware of public-health nutrition.

Current status of undernutrition in Bangladesh

Current BDHS (2011) shows that 41% of children below five years of age are considered stunted while 51% are severely stunted. The prevalence of stunting increases with age from 18% in children of less than six months to 52% in children aged 18-23 months but again decreases to 42% among children aged 48-59 months. Rural children are more likely to be stunted than the urban children (43% compared to 36%). Stunting is the lowest in Khulna and Rajshahi division (34%).

Sixteen percent of children are considered wasted or too thin for their height, and 4% are severely wasted. Wasting peaks at 18-23 months (17%).

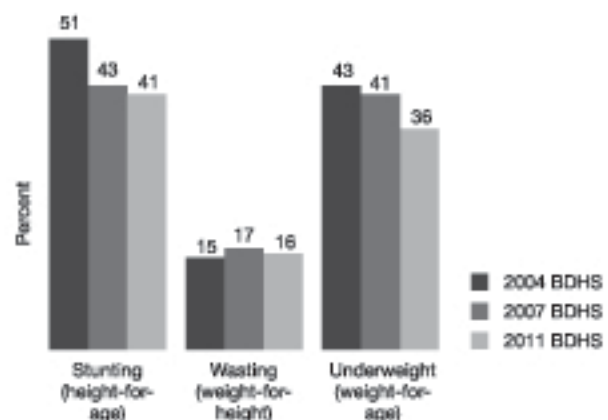


Figure 13.1 shows the trends in nutritional status of under-five children during 2004-2011

Thirty-six percent of children are underweight (low weight-for-age), and 10% are severely underweight. The proportion of underweight in children peaks at age 36-47 months (43%).

There have been some improvements in nutritional status of children over the past four years. The level of stunting has declined in under-five children from 51% in 2004 and 43% in 2007 to 41% in 2011. Wasting has declined from 17% in 2007 to 16% in 2011. The level of underweight has gone down to 36% in 2011 from 41% in 2007. In this rate, the goals of HPNSDP for reduction of underweight (33%) and stunting (38%) will be achieved.

The NNS is undertaking efforts for creating awareness through different BCC programs and is scaling up services to establish nutrition units in each health facility where nutrition services will be provided with special emphasis on protein-energy malnutrition (PEM). Severe acute malnutrition (SAM) management centers will also be established in all the district hospitals as well as in the tertiary hospitals. Strong referral linkages will be established for sending the PEM patients from community clinics to higher facilities.

Breastfeeding Practices

Breast-milk is enriched in all the nutrients required for the children in their first six months of life. It reduces risk of infectious diseases, e.g. diarrhea. In the current BDHS of 2011, it is observed that there has been an apparent increase in the level of exclusive breastfeeding among children under six months—from 43% in 2007 to 64%. Intensive GoB programs undertaken with the focus on maternal, newborn and childcare as well as health programs undertaken by other stakeholders have contributed largely to this improvement.

If the change can be sustained under the HPNSDP (2011-2016) and if the programs, like Exclusive Breastfeeding (EBF), Baby-friendly Hospital Initiative (BFHI), and other MNCH programs, putting more focus on child-feeding, can be scaled up successfully, the HPNSDP target of exclusive breastfeeding to 50% infants up to 6 months of age would be achieved.

Infant and Young Child-feeding Practices

Infant and Young Child-feeding (IYCF) practices include timely initiation of solid, semi-solid or soft foods from six months of age. Overall, 21% of children aged 6-23 months are fed appropriately according to standard IYCF practices. There has been a decline in the IYCF practices (from 42% as of 2007) due to change in the definition of

IYCF in the DHS tool. The NNS is scaling up IYCF services in the facilities and community through community clinics with the aim of achieving HPNSDP target of IYCF, which is 52%

Vitamin A supplementation

The Government of Bangladesh prioritizes vitamin A supplementation as an important public-health program and is distributing vitamin A capsules to children of 6-59 months through National Vitamin A Campaign (NVAC). In the past, the success of NVAC was highly appreciable. The coverage was 84% according to BDHS and 88% according to Utilization of Essential Service Delivery Survey 2008. In the current BDHS, vitamin A coverage is found to be 60%.

Every year, two rounds of vitamin A capsule supplementation to children aged 6-59 months are conducted. On 8 January 2011, the first round for 2011 took place on the 19th National Immunization Day (NID), and the second round for the year took place on 12 February 2011.

Health workers and volunteers administered oral polio vaccine to 22 million children aged 0-59 months and vitamin A capsules to 20 million children aged 6-59 months at 140,000 sites located in health facilities, health centers, schools as well as mobile sites (bus, boat, and railway stations) throughout the country. On 2 June 2012, another vitamin A campaign will be held. This year hard-to-reach areas in 10 selected districts will be covered under intensive searching for suitable places. Also in the other parts of Bangladesh, a 4-day house-to house immunization drive by mobile teams will follow in order to ensure that no child is missed.

Maternal Nutrition Status

Maternal nutrition and adequate care during pregnancy are very important steps to improve nutrition and health outcomes of mothers and children. However, the care practices regarding maternal nutrition are still lagging behind. Over a quarter of mothers in Bangladesh are chronically energy-deficient (CED), and 60% do not consume adequate micronutrients.

In Figure 13.2, maternal nutrition status is shown by place of residence (urban-rural) and division. In urban areas, more than half of the maternal population falls into either CED or overweight categories. Only 45% of urban mothers have normal BMI. In rural areas, 53% of mothers have normal BMI; 29% are CED, and 18% are overweight. Divisional variation in malnutrition is also seen.

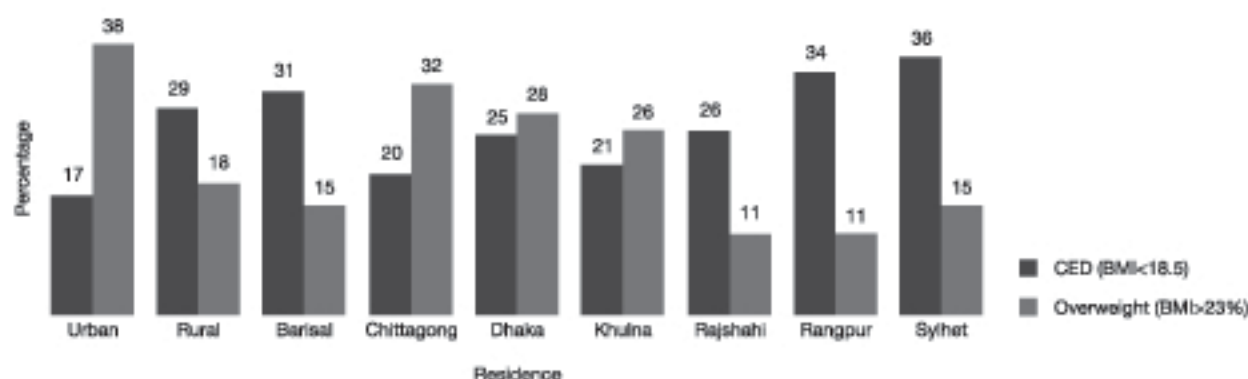


Figure 13.2. Maternal nutrition status by place of residence

Control and Prevention of Iron-deficiency Anemia

In a study by Helen Keller International (HKI) done in 2006, it is found that nearly half of pregnant women in Bangladesh are anemic. In Food Security and Nutrition Surveillance Project, jointly done by BBS, BRAC University, and HKI, it is seen that the proportion of women taking iron folic acid (IFA) supplementation during the last pregnancy is slowly rising (Figure 13.3). A survey, jointly done by IPHN and HKI in 1999, showed that 49.2% of pregnant women and 52.7% of pre-school children in rural Bangladesh are suffering from iron-deficiency anemia. It seems that,

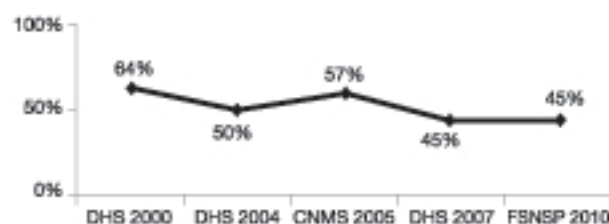


Figure 13.3. Percentage of mothers not taking iron folic acid during their last pregnancy.

iron-deficiency anemia is remaining in the same level. Control and prevention of iron deficiency and other nutritional anemia was broadly operated through country's routine service-delivery network and the NNP. Now the NNS is working in this sector with key components of distribution of iron-folate supplements to the target vulnerable and anemic groups. In 2011, the NNS has distributed 10 crore IFA to community clinics. Control of nutritional anemia is done by controlling intestinal parasites through distribution of albendazole tablets, along with vitamin A capsules distribution program.

Control of Iodine-deficiency Disorders and Other Micronutrient Problems

In Table 13, the available data on iodine-deficiency disorders in the country are shown. The NNS provides training to doctors and other health staff on iodine-deficiency disorders. The NNS also provides training on capacity-building of managers, chemists, and relevant persons in different zones in collaboration with Bangladesh Small and Cottage Industries Corporation (BSCIC). The NNS is also strengthening the laboratory of IPHN for testing the iodine level in salt.

Table 13. Iodine nutritional status based on available data

Biochemical iodine deficiency among children (<100 µg/ L)					Biochemical iodine deficiency among general Population; (<100 µg/ L)				Prevalence of goiter among children (6-12 years)	Prevalence of goiter among women (15-44 years)
1993	1995	2004-05	2006	2009	1993	2005	1993	2004-05	1993	2004-2005
71.0%	44.0%	33.8%	84.0%	84.0%	70.2%	38.6%	49.8%	6.2%	55.6%	11.7%

Nutrition Education Program

The NNS has a school health nutrition education program which, this year, will be rolled out in 122 upazilas. The NNS also trains doctors, senior nurses, sanitary inspectors, health assistants (HA), family welfare assistants (FWA), and community healthcare providers (CHCP) on different public-health nutrition services, including Breastmilk Substitute codes. The IPHN also runs 20 Child Nutrition Units (CNU)—one at the IPHN and 19 in upazila health complexes of 19 districts

National Nutrition Project

The National Nutrition Project (NNP) provided nutrition services in 172 upazilas. The project ended in June 2011 and from July 2011, National Nutrition Services (NNS) has started providing nutrition-related services. In the NNP area, satellite community nutrition centers operated 6 days a week, one per 1,200 people. One lady community nutrition worker manned the nutrition center. For 172 upazilas, there were 36,764 community nutrition workers, 3,732 community nutrition organizers, 960 field supervisors, and 172 upazila managers. The target populations of the NNP were:

(a) under-two children ; (b) pregnant and lactating mothers; (c) newly-married couples; (d) adolescent boys and girls; (e) in-laws; and (f) husbands of pregnant women. The latter two target-groups are selected for advocacy services. The services include nutrition supplementation to malnourished children and all pregnant and lactating women, monitoring weight of under-two children and pregnancy weight-gain; training; behavior change communication; and food-security interventions through vulnerable group-feeding as well as through encouraging people for home-gardening and poultry-farming.

Figure 13.4 to 13.7 show the coverage of services by the National Nutrition Program (NNP) in the 109 upazilas from 2004 to 2010. Figure 13.4 summarizes the coverage for pregnancy-care service. It reveals that pregnancy weight-gain was measured among 97% to 98% pregnant women. Need for distribution of supplementary feeding reduced from 21% in 2005 to 8.3% in 2010. Antenatal care coverage was 53% in 2004 and 82% in 2010 whereas 43.4% of the pregnant women received iron tablets in 2004; the figure was 97% in 2010.

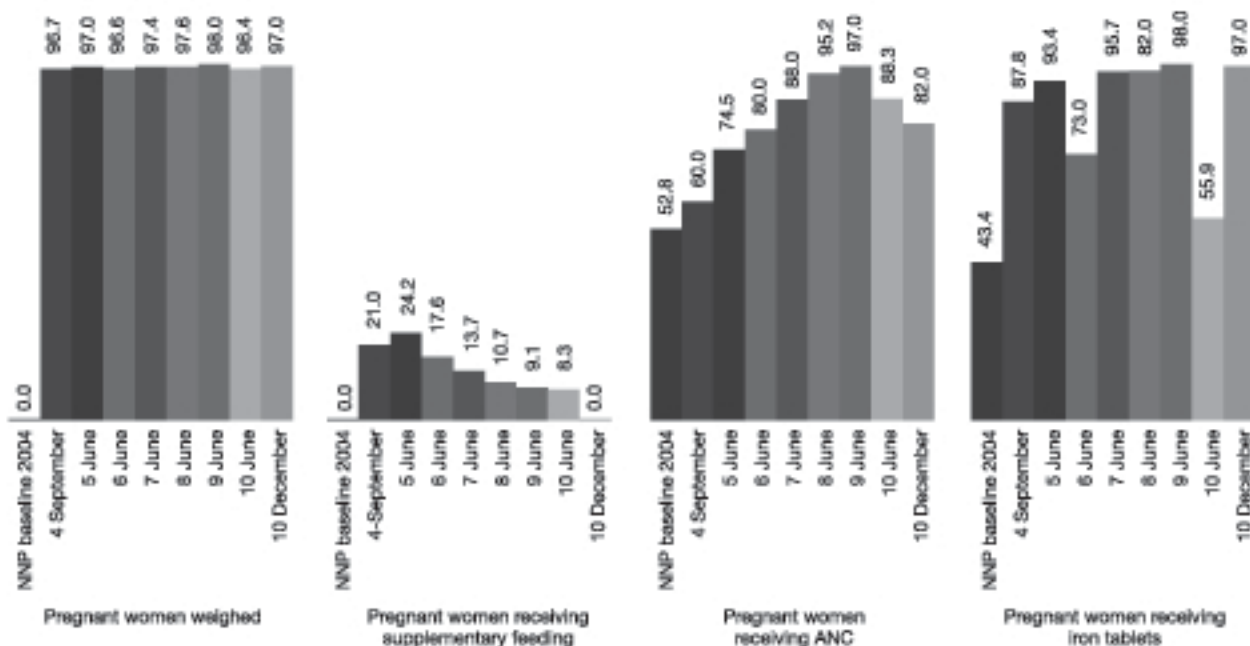


Figure 13.4. Coverage (%) of pregnant mothers with services in 109 National Nutrition Program upazilas (Year 2004 to 2010)

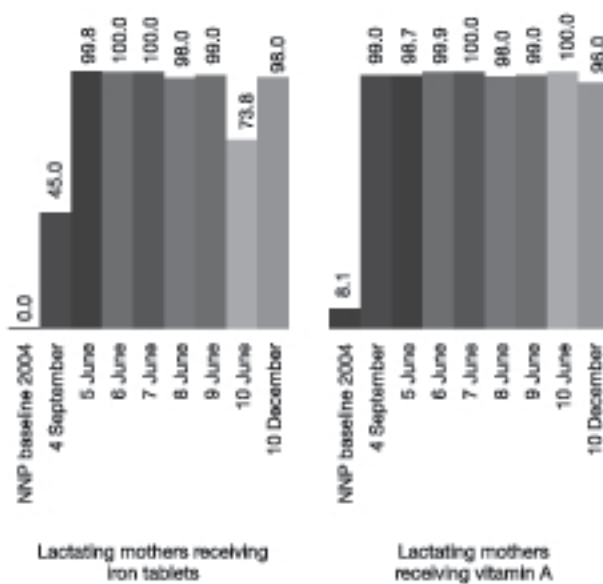


Figure 13.5. Coverage (%) of lactating mothers with service in 109 National Nutrition Program upazilas (2004 to 2010)

Figure 13.5 shows the service given to lactating mothers in the 109 NNP upazilas. In 2004, 45% of the lactating mothers were recorded to receive iron tablets. This figure rose to 100% in 2006, and the same coverage was maintained also in 2007. By the end of 2010, it was 98%. In 2004, only 8.1% of the lactating mothers received vitamin A capsules. In 2009, 99% of them were receiving vitamin A capsules, although the coverage was 96% by the end of 2010.

Figure 13.6 shows the coverage of services provided to newborns and young children by the NNP in 109 upazilas. In 2010, birthweights of 96% of the newborns were measured. In December 2010, 10% of the newborns in the program area were found to have low birthweight, which was 20.7% in 2004. In 2010, 99% of all newborns were reported to be fed colostrum, which was 93.3% in 2004. Exclusive breastfeeding rate was markedly increased from 9.9% in 2004 to between 69% and 72% in 2010.

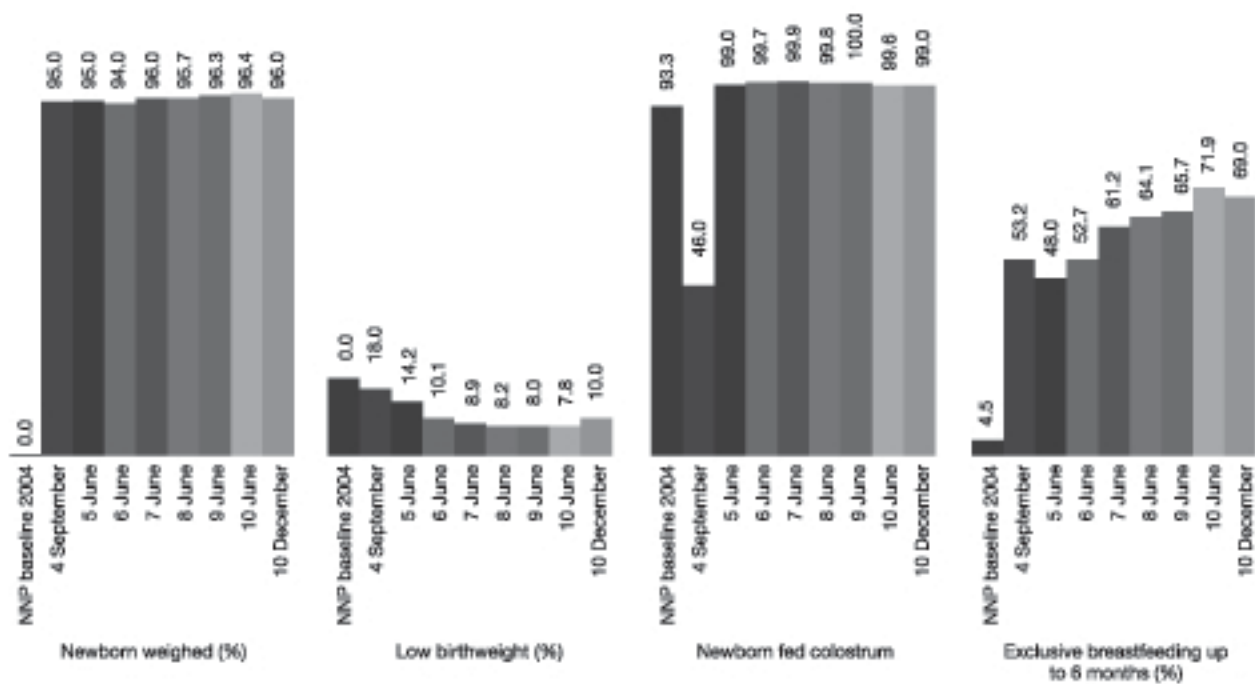


Figure 13.6. Coverage (%) of newborn service in 109 National Nutrition Program upazilas (2004 to 2010)

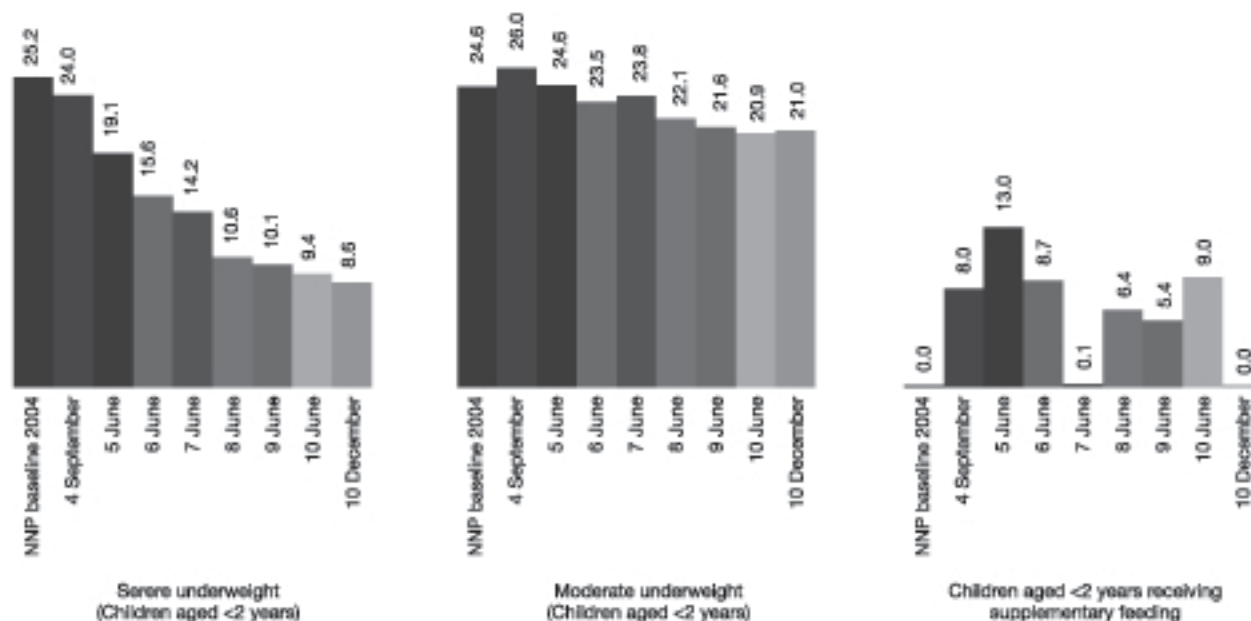


Figure 13.7. Prevalence (%) of severely- and moderately-underweight children aged <2 years with supplementary feeding in 109 National Nutrition Program upazilas (2004 to 2010)

Figure 13.7 shows the prevalence of severely- and moderately-underweight children of less than 2 years of age in the NNP program area. Prevalence of severe underweight among under-2 children dropped from 25.2% in 2004 to 8.6% in 2010. Prevalence of moderate underweight among under-2 children dropped from 24.6% in 2004 to 21.0% in 2010. In 2004, 8.0% of the under-2 children with underweight were given supplementary feeding from the program. This figure was 9.9% by the end of 2010.

Figure 13.8 shows the trend in the household iodized salt-use in 109 program upazilas of the NNP. As of 2009, 92% of the households were consuming iodized salt, which was 61% in 2004. A sharp increase (to 82%) in the household iodized salt consumption was noticed in later part of 2004 and, thereafter, a steady increasing rate was maintained.

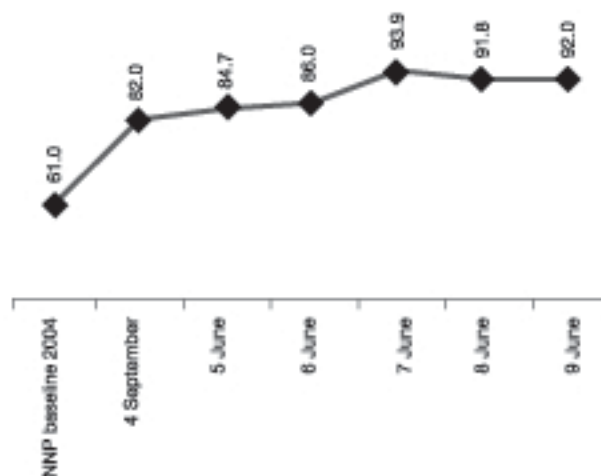


Figure 13.8. Percentage of households using iodized salt in 109 National Nutrition Program Upazilas (2004 to 2010)