Social Enterprise Development Centre

# Policy Brief

## CHILD MALNUTRITION IN PUNJAB

Maham Nasir

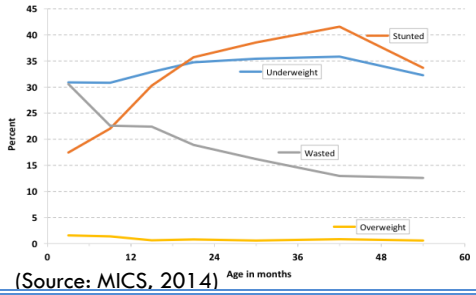
## Executive Summary

*Undernutrition (stunting and wasting) amongst infants under 5 years is a serious problem in Punjab and is the leading cause of infant mortality in the region. This brief aims to highlight this problem in Punjab, focusing on the major determinants of undernutrition (maternal health, breast feeding and child feeding practices and nutrient deficiencies), and how they cause stunting in children. It elaborates on current maternal and child nutrition and health policies in place, their failures and provides recommendations to tackle and cure malnutrition in the highest food-producing province in Pakistan.*

## Child Malnutrition in Punjab

Undernutrition is defined as the outcome of insufficient food intake and repeated infectious diseases. It "includes being underweight for one's age, too short for one's age (stunted), dangerously thin (wasted), and deficient in vitamins and minerals (micronutrient malnutrition)" (UNICEF, 2006). Malnutrition is a major problem in Pakistan and "Pakistani children suffer from some of the highest rates of malnutrition in the world" (Policy and Strategic Unit Punjab, 2012). The national prevalence of nutritional stunting among children under five is 43.7 percent (Policy and Strategic Unit Punjab, 2012).

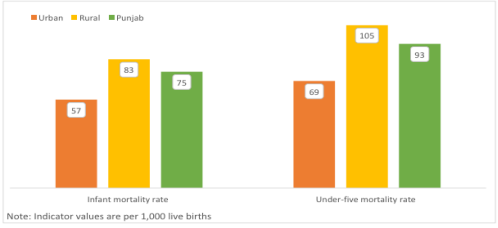
Figure.1 Infant mortality rates in Punjab




(Source: MICS, 2014)

Despite Punjab having a two-third share in the overall agricultural production of Pakistan, the food insecurity ("a situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life" (FAO, 2015)) is very high and 34 percent of children under 5 are moderately or severely underweight, 33 percent are severely or moderately stunted and 18 percent are moderately or severely wasted (MICS, 2014). Undernutrition weakens a child's immune system and makes him more susceptible to getting affected by diseases such as pneumonia, diarrhea and malaria.

Figure.2 Prevalence of malnutrition in children




(Source: MICS, 2014)

The first 2 years of a child's life are considered as a "critical window of opportunity" to address malnutrition after which the stunting and wasting effects of malnutrition become irreversible as far as the child's health is concerned. The current status on the issue of ensuring proper child care in Punjab during this critical 1000 day period is far behind the child health standards set by international bodies like the WHO and UNICEF (Policy and Strategic Unit Punjab, 2012).

Moreover, Punjab's progress on UN Millennium Goal 1 (eradicate extreme poverty and hunger) and 4 (reduce child mortality) has been slow and unsatisfactory. For MDG 1, progress is lagging as the head count poverty (caloric plus basic needs), while having decreased from 34 percent in 200-01 to 22.3 percent in 2005-06, is still falling behind the target of 13 percent (UNDP 2017).

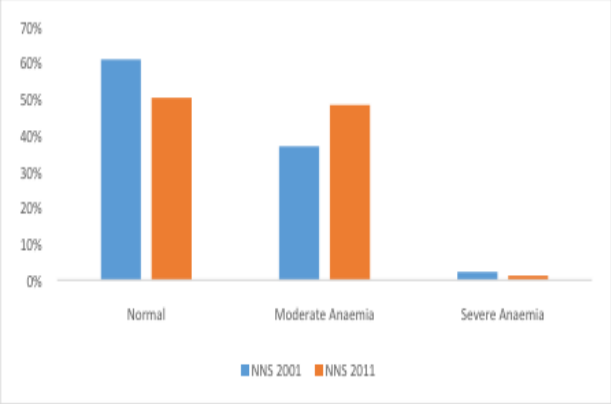
Similarly, in MDG 4, the progress has been poor. Pakistan currently stands among the worst performers in child and infant mortality as the number of deaths of children under 1 year of age per 1000 live births is 69 against the target of 40. There has been a marginal reduction in the child mortality rate, from 117 per thousand live births in 1990-91 to 94 per thousand live births in 2006-07. The prevalence of child mortality in Pakistan is symptomatic of the poor medical and healthcare facilities available for the mother and child, as well as the below-par level of sanitation (UNDP 2017).

## Causes of malnutrition

**Maternal Health**

Mother's antenatal care directly affects what the fetus and child's nutrition will be like. According to the National Nutrition Survey (NNS) 2011, prevalence of anemia has risen amongst Punjabi women from 37 percent to 48 percent due to lack of provision of iron folic acid supplements (NNS, 2011).

Figure.3 Prevalence of anaemia in pregnant mothers




(Source: NNS, 2011)

At least 4 or more antenatal visits are necessary, however in Punjab only 39 percent of women in rural areas have 4 or more antenatal visits (MICS, 2014) at a Basic Health Unit (BHU) or Rural Health Unit (RHU), which affects maternal health and thus the child. Maternal intake of nutrients during and after pregnancy is very important for the direct nutrition of the child because these nutrients are then transferred to the child through breast milk and so "risk of infant depletion is increased by maternal deficiency" (Black et al., 2008).

**Breastfeeding practices**

Breastfeeding practices determine whether or not the child will be malnourished during the first two years of life. Breastfeeding for the first few years of life protects the child from infections, provides an ideal source of

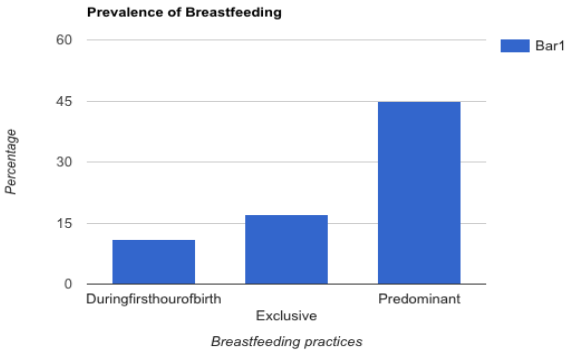
nutrients, and is economical and safe (MICS, 2014). Table 1 and Figure 4 show the proportion of children who are breastfed within one hour of birth, exclusively breastfed (only breastfed without additional food and water intake) and predominantly breastfed (intake other water based liquids).

Table.1 Prevalence of breastfeeding practices

| Breastfeeding practices | Percentage |
|---|---|
| Breastfeeding during the first hour of birth | 11% |
| Exclusive breastfeeding | 17% |
| Predominant breastfeeding | 45% |

(Source: MICS, 2014)

Figure.4 Prevalence of breastfeeding practices




(Source: MICS, 2014)

Figure 4 shows the proportion of children receiving proper breastfeeding in Punjab are much less compared to its South Asian Counterparts such as Bangladesh and Nepal, with a high percentage of 47 percent and 45 percent respectively (Sharma & Byrne, 2015). Most mothers in Punjab do not start breastfeeding early enough or they stop before 6 months and replace breast milk with formula milk, which lacks proper micronutrients that are needed by the child, directly impacting the child's nutrition (MICS, 2014). Partial breastfeeding can have relatively higher risks to the child compared to exclusive breastfeeding, and undernutrition in Punjab continues to persist because of "suboptimum breastfeeding in young children" (Black et al., 2008).

**Child feeding practices**

Child feeding practices entail the introduction of semi-solid food (complementary feeding) in a child's diet after the first 6 months of his life. Table 2 shows the prevalence of child feeding practices in Punjab. Due to food insecurity and lack of knowledge and awareness about child feeding practices, minimum dietary diversity and minimum acceptable diet amongst children from ages 6-23 months is very low while the quantity of meals is slightly higher. If the food is not introduced in the diets of the children in a timely manner, it can affect child growth (Policy and Strategic Unit Punjab, 2012). If they do not receive an adequate quantity and quality of complementary foods after 6 months and not enough micronutrients are present in the preparation of food, then it can result in stunting amongst the infants (Black et al., 2008).

Table.2 Prevalence of Child feeding practices

| Child feeding practices | Percentage |
|---|---|
| Minimum dietary diversity | 17.3% |
| Minimum meal frequency | 65.3% |
| Minimum acceptable diet | 9.7 |

(Source: MICS, 2014)

**Nutrient deficiencies**

Nutrient deficiencies in children under 5 years are a leading cause of undernutrition in Punjab. Nutrient deficiencies, that come about as a result of poor breastfeeding and child feeding practices due to lack of awareness amongst the mothers, are likely to increase the incidence of diseases like malaria, pneumonia, diarrhea etc., resulting in stunting (Black et al., 2008). In Punjab, there are severe Vitamin A and D, Iron and Zinc deficiencies amongst infants, shown in Table 3. Lack of nutrients results in recurring diseases causing stunting and malnourishment in children.

Table.3 Prevalence of micronutrient deficiencies among children in Punjab

| Nutrient deficiencies | Percentage |
|---|---|
| Vitamin A deficiency | 51% |
| Vitamin D deficiency | 40.3% |
| Zinc deficiency | 38.4% |
| Iron deficiency | 48.6% |

(Source: NNS, 2011)

## Policy Options and Critique

Health care provisions, including child nutrition, were devolved to the provincial governments in Pakistan. The national government launched the National Programme for Family Planning and Primary Health Care (also known as Lady Health Worker Programme). The scope of the Lady Health Worker Programme encompassed maternal, newborn and childcare including nutritional interventions such as "anaemia control, growth monitoring, and dissemination of information about the benefits of breastfeeding and weaning practices" (Bhutta et al., 2013).

Factors affecting the performance of the programme "include poor support from suboptimum functional health facilities, financial constraints, and political interference leading to management issues". "The challenges of devolution, poor fiscal support to the provinces, and widespread call for regulation of services threaten the future sustainability of this programme" (Bhutta et al. 2013). Moreover, "irregular salaries, uncertain conditions, job insecurity, unclear work description and being attacked and abused by the people they encounter are among the problems identified by health workers" (Baloch, 2017).

The Punjab government has formulated a number of health programs including PC-1 Punjab; Punjab Integrated Reproductive Maternal Newborn and Child Health (RMNCHRN) & Nutrition Program 2013–2016. The aim of this program was to "increase the proportion of children 6–23 months fed in accordance with all 3 IYCF practices (food diversity, feeding frequency, consumption of breast milk or milk), up to 40 percent in 2016" (Mahmood et al., 2017).

Uniform implementation of policy remains challenged by lack of ownership on the part of the provinces. While devolution has made them autonomous, absence of relevant stakeholder involvement and consensus in decision making remains a bottleneck in the process (Mahmood et al., 2017). RMNCH also faces challenges related to the availability of human resources at service delivery units such as BHUs and RHUs (Manzoor et al., 2016). Additionally, lack of collaborations across Departments of

Agriculture, Food and Education was a major cause of the unsuccessful outcomes of the program.

In 2012, the Punjab government introduced the Punjab Protection of Breastfeeding and Child Nutrition Act. The law not only aimed to disseminate "information and education on infant feeding" (Mahmood et al., 2017) but also prohibited free sampling by infant formula companies. Thus, "it was based on international code of marketing of breast milk substitutes" (Mahmood et al., 2017). However, this program has many shortcomings including lack of training of health workers to counsel mothers and to disseminate information about breastfeeding and child feeding practices, and has failed to maintain an engagement between the two, which has resulted in the failure of the program and the need to develop a more inclusive program for child nutrition in Punjab (Mahmood et al., 2017).

## Policy recommendations

There is a need for interventions that focus on antenatal care and sufficient nutrition of pregnant women, as they directly affect the nutrition status of the child.

Since the incidence of anaemia is extremely high amongst women in Punjab, there needs to be an increase in the provision of iron folic acid for mothers. The Lady Health Worker Programme already aims to provide iron folic supplements to mothers, however as far as implementation goes the process has been slow, manifest in the endemic prevalence of anaemia.

There need to be improved linkages between the mothers and LHWs, who can then counsel the mothers on the importance and method for breastfeeding during the first few hours of the child's life, exclusive feeding as well as about the importance of nutrient deficiencies. Punjab can emulate the successful model adopted by Alive and Thrive initiative to increase exclusive breastfeeding in Bangladesh. In Bangladesh, exclusive breastfeeding went up from 48 percent to 88 percent through advocacy, interpersonal communication, community mobilization and mass communication (Alive and Thrive, 2016). Proper counseling can also improve child feeding practices by providing mothers with information about the dietary requirements of the child and dietary diversification strategies.

The Lady Health Worker Programme has very slow progress primarily because there is very low demand for maternal healthcare services. Initiatives that focus directly on improving the demand, including mass awareness campaigns can be a step towards increased demand. The demand can be increased through community-based activities such as development of women's groups (Bhutta et al., 2013) at the primary level, which will aim to organize them together to discuss their issues and gain more information. There is a need for better training for the Lady Health Workers so that they have enough knowledge to pass on to the mothers.

Additionally, the LHW programme has failed to produce considerable results because of the lack of incentives for the LHWs as well as their security concerns. Increasing salaries, incentives and providing additional security at the health centers through police patrol can increase the efficiency of the LHWs.

In rural areas since there is increased food insecurity, child-feeding practices can be improved by providing conditional cash transfers to mothers so that they can ensure that their children are getting nutrient rich fortified foods (Bhutta et al., 2008). The Health Department needs to collaborate with the Agricultural Department at the provincial level to increase the production and distribution of fortified foods, improving child-feeding practices.

Moreover, there is a need to ensure that BHUs and RHUs are well equipped. The government needs to allocate sufficient funds for the efficient working of rural health care centers, so that proper delivery of health services can be ensured to the mothers and children.

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