Information about current health and nutrition practices at the community level is essential for understanding where problems lie and making decisions about what steps can be taken to support improvements. This brief provides summary information on infant and young child feeding (IYCF) practices in Borena, a woreda (district) in South Wollo zone of Amhara Region, Ethiopia. The data were gathered during a recent household survey conducted in 12 woredas in South Wollo, where efforts are under way by the Alive & Thrive initiative, in partnership with Concern Worldwide, to improve IYCF practices.

The data focus on the underlying and immediate causes of malnutrition in the first 1,000 days of life—conception to 2 years of age—and are intended for use by woreda-level decisionmakers (administrators, nutrition officers, health extension officers, agriculture officers and others) who can contribute to positive changes. They are meant to serve as a basis for designing action plans at the woreda level and to support the goals of the National Nutrition Programme’s “Lifecycle Approach,” which emphasizes the first 1,000 days.

HIGHLIGHTS

- Malnutrition among children in Borena is high. Stunting is especially serious, affecting 31 percent of children younger than 2 years.
- Infant and young child feeding is suboptimal. While most children (79 percent) start consuming foods in addition to breastmilk at 6–8 months of age, their diets are not sufficiently diverse. The World Health Organization (WHO) recommends a diet that includes foods from four or more of the recommended food groups. In Borena, on average, children eat from only 1.9 food groups per day, and only 8 percent of children receive foods from at least four of the recommended groups. In particular, consumption of foods that contain sufficient iron (meat or iron-fortified foods) is low.
- The diets of mothers/caregivers in Borena also are not sufficiently diverse: only 29 percent eat foods from four or more of the recommended food groups.
- Home visits by Health Extension Workers (HEWs), Health Development Army (HDA) volunteers and other frontline workers are not adequate. In the three months preceding the survey, only 22 percent of households received a visit by a HEW and only 5 percent were visited by a HDA volunteer. Further, information provided during the visits lacked comprehensive messages on IYCF practices.

POPULATION OF BORENA

Women: 88,019  
Men: 87,038  
Total: 175,057
**KEY RECOMMENDATIONS:**

- To reduce stunting in Borena, the diets of children younger than 2 years should be improved to include more diversity. Children should consume foods from at least four of the WHO-recommended food groups, including a serving of meat, milk or eggs.
- Visits by HEWs and HDA volunteers should be more frequent and include counseling on exclusive breastfeeding, the timely introduction of complementary foods and specific foods to give to children older than 6 months in addition to breastmilk.

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**Why are the first 1,000 days important?**
Investments in good nutrition during the first 1,000 days of a child's life contribute to his or her long-term health and wellbeing, and can also benefit future generations.

The biggest window of opportunity for preventing undernutrition in the first 1,000 days of life is the period when a child consumes foods in addition to breastmilk (6–23 months of age). A large proportion of stunting in low-income countries occurs during this critical period.\(^3\)

If children in Borena eat better, they will grow better—both physically and mentally. This will improve their learning capacity, as well as their employment opportunities later in life. Girls will also grow into women who are better prepared to bring healthy infants into the world.

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**BACKGROUND**

The data included in this brief were collected as part of a household survey conducted in October and November of 2014 by Addis Ababa University. They will provide a baseline for a comparative evaluation of two intervention packages designed to integrate IYCF activities into Ethiopia's Productive Safety Net Programme (PSNP), which is “aimed at enabling the rural poor facing chronic food insecurity to resist shocks, create assets and become food self-sufficient through the provision of food and/or cash transfers.”\(^4\)

The survey was carried out in 72 kebeles (wards or neighborhood associations) randomly selected from 12 woredas: Albüko, Ambasel, Borena, Keleta, Kutaber, Mahal Saint, Mekedela, Saint Ajibar, Tehuledere, Tenta, Wogedi and Worebabo.

A total of 3,583 mothers/caregivers of children aged 0–23 months participated in the survey. Among the sample of children, 54 percent were boys and 46 percent were girls.

Of these, 42 percent were 0–5 months old and 58 percent were 6–23 months old.

Of the households surveyed, 29 percent reported being either a current or former member of PSNP and 7 percent were members of the Household Asset Building Programme, another food security program of the Ethiopian government.

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**SURVEY FINDINGS**

**LEVELS OF HOUSEHOLD FOOD SECURITY**

In Borena, approximately 36 percent of households were identified as having secure access to food; 18 percent experienced mild food insecurity; 40 percent experienced moderate insecurity; and 6 percent were severely food insecure.

**NUTRITIONAL STATUS OF CHILDREN YOUNGER THAN 2 YEARS**

Stunting rates of children younger than 2 years in Borena were high (26 percent), as at the national level (29 percent). Across all woredas, stunting rates started increasing at 6 months of age and reached a high of 45 percent among children aged 12–23 months (Figure 1). Stunting is caused by a combination of factors, including long-term insufficient food intake, poor IYCF practices and frequent infections early in life.

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\(^3\) Foods given to newborns before breastfeeding has been established.

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**INITIATION OF BREASTFEEDING**

Initiation of breastfeeding within the first hour after birth can help prevent neonatal death, especially in preterm and low-birthweight infants. Colostrum, the sticky, yellow-white early milk, rich in antibodies, vitamin A and other protective factors, has been called baby's first immunization. Infants should be given no prelacteal feeds such as water, other liquids or ritual foods.

In Borena, only 69 percent of women surveyed said they had initiated breastfeeding of their youngest infant within the first hour of birth and 81 percent reported that they had given their baby colostrum. In addition, 24 percent of infants had received prelacteal feeds. Sugar/glucose water or raw butter was given most frequently.

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**EXCLUSIVE BREASTFEEDING**

Breastmilk contains all the nutrients that a baby needs for the first six months of life. WHO recommends exclusive breastfeeding—with no other foods or fluids including water—until a baby is six months of age. At the time of the survey, a significant proportion (74 percent) of babies 0-5 months of age were being exclusively breastfed.
INTRODUCTION OF COMPLEMENTARY FOODS AT 6 MONTHS

A large proportion of child stunting occurs within 6–23 months of age. Appropriate feeding promotes growth and prevents stunting during this time, and the timing as well as the quality of the foods is crucial. More diverse diets are associated with lower stunting rates.3

In Borena, introduction of foods in addition to breastmilk appeared timely for most children, with 75 percent of caregivers reporting they began to feed solid and semisolid foods when a child was 6–8 months of age. For 25 percent of children, however, solid foods were introduced later than 6–8 months.

In addition, foods introduced to young children were not sufficiently varied. According to WHO, children should be fed from at least four of the recommended food groups each day: grains, roots and tubers; legumes and nuts; dairy products; flesh foods (meat, fish, poultry, liver or other organ meats); eggs; vitamin A rich fruits and vegetables; and other fruits and vegetables.5

The survey found that only 8 percent of children in Borena were receiving foods from the recommended four or more food groups each day; on average, eating from only 1.9 of these groups (Figure 2). In particular, high-protein foods like meat, milk products and eggs were given once a day to fewer than 20 percent of children. And only 7.8 percent of children in Borena, versus 12 percent for the country as a whole, were receiving foods that contain sufficient amounts of iron (meat or iron-fortified foods).

FIGURE 2: FOOD GROUPS CONSUMED (ON THE DAY PRECEDING THE SURVEY) BY CHILDREN 6–23 MONTHS OLD IN BORENA (N=688)

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>92%</td>
</tr>
<tr>
<td>Legumes</td>
<td>43%</td>
</tr>
<tr>
<td>Milk and milk products</td>
<td>20%</td>
</tr>
<tr>
<td>Meat</td>
<td>6%</td>
</tr>
<tr>
<td>Eggs</td>
<td>5%</td>
</tr>
<tr>
<td>Vit A rich fruits and vegetables</td>
<td>12%</td>
</tr>
<tr>
<td>Other fruits and vegetables</td>
<td>10%</td>
</tr>
</tbody>
</table>

Many foods were introduced to children very late. This was especially critical for milk, meat, eggs and legumes. Milk (other than breastmilk) and eggs were generally introduced at 14 months. Green leafy vegetables, fruits and legumes were introduced at 16 months on average and meat as late as 18 months.

DIETS OF MOTHERS

Only 29 percent of mothers reported having consumed at least one serving from at least four of the WHO-recommended food groups the previous day. Very few mothers reported having eaten animal products like milk, meat or eggs (Figure 3). Consumption of vitamin A rich fruits and vegetables like pumpkin, carrots and kale was also very low. Mothers consumed more legumes than children, however.

FIGURE 3: FOOD GROUPS CONSUMED BY MOTHERS IN THE DAY PRECEDING THE SURVEY (AT LEAST ONE SERVING) N=1,198

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strachy staple foods</td>
<td>100%</td>
</tr>
<tr>
<td>Legumes</td>
<td>91%</td>
</tr>
<tr>
<td>Nuts and seeds</td>
<td>72%</td>
</tr>
<tr>
<td>Dairy</td>
<td>14%</td>
</tr>
<tr>
<td>Meat</td>
<td>7%</td>
</tr>
<tr>
<td>Eggs</td>
<td>6%</td>
</tr>
<tr>
<td>Vitamin A rich dark leafy vegetables</td>
<td>24%</td>
</tr>
<tr>
<td>Other Vit A rich fruits and vegetables</td>
<td>7%</td>
</tr>
<tr>
<td>Other vegetables</td>
<td>6%</td>
</tr>
<tr>
<td>Other fruits</td>
<td>3%</td>
</tr>
</tbody>
</table>

HANDWASHING PRACTICES

Handwashing with soap and water before preparing or giving a child food and after using a latrine or cleaning a child can prevent infections that can lead to poor appetite, malnutrition and death. Each year, more than two million children worldwide younger than 5 years die from diarrhea and pneumonia.6 Addressing the main barriers to proper handwashing is a lifesaving and cost-effective intervention. Handwashing at appropriate times can help prevent the spread of common childhood illnesses and reduce stunting and wasting.

In Borena, 79 percent of caregivers reported that they washed their hands before preparing food, but only 54 percent reported using soap. In addition, only 35 percent said they washed their hands before feeding a child and only 24 percent after attending to a child who had defecated.

WATER AND SANITATION

A growing body of evidence links open defecation in communities to poor child health. Diarrhea resulting from contact with feces in the environment is a major problem in these communities, leading to a vicious cycle of illness, poor absorption of nutrients and poor nutrition. Further, after repeated exposure to feces over time, a child’s intestines become unable to absorb nutrients properly even when diarrhea is not present. This condition is called chronic environmental enteropathy and also undermines health.7
In Borena, 26 percent of households reported that they had no access to a toilet facility. About 70 percent of households reported having both a traditional pit latrine and an improved source of water for drinking and cooking purposes.

**MATERNAL KNOWLEDGE ABOUT IYCF PRACTICES**

Almost 80 percent of mothers in Borena had good overall knowledge about breastfeeding initiation and the importance of exclusive breastfeeding for the first six months, as well as when to introduce solid or semisolid foods into an infant's diet.

Fewer mothers (45 percent) knew that no water should be given to an infant before 6 months of age, even in very hot weather. Only 30 percent of mothers knew that they could continue breastfeeding if they became pregnant again. Hardly any mothers (2.5 percent) knew that they could express milk for their babies if they had to be separated from them.

Only 26 percent of women knew that traditional gruels often given as first foods are too thin to satisfy the nutrient needs of an infant.

**SUPPORT AND INFORMATION FROM HEWS AND THE HDA**

Only about 22 percent of households reported having had a visit from a HEW in the past three months. Even fewer (5 percent) had been visited by a HDA volunteer. Only about one-third of visits were reported to have included counseling on exclusive breastfeeding for six months and introduction of complementary foods. No mother reported a visit in which she was counseled on all of the relevant IYCF messages.

**HOW TO MAINTAIN BREASTFEEDING RATES AND IMPROVE THE DIETS OF CHILDREN IN BORENA**

- Good progress has been made in improving early initiation of breastfeeding. However, the dangerous practice of giving water to a child before 6 months of age is still very common. HEWs and the HDA should improve support to mothers in Borena through individual counseling and mother-to-mother support groups.

- HEWs and HDA volunteers should remind families and communities about the importance of giving young children a varied diet. Children should receive meat, eggs and legumes every day starting at around 6 months of age. Children in Borena need to eat a more varied diet, including at least one serving from at least four of the WHO-recommended food groups every day.

- Visits by HEWs and HDA volunteers should emphasize the importance of washing hands before preparing and giving food to infants and young children and after defecation or cleaning a child.

- HEWs and HDA volunteers in Borena should visit with individual mothers and their communities at least once every two months.

- Complementary feeding demonstrations should be organized in communities to help mothers learn how to prepare healthier food for their children.

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**IMPROVING THE DIETS OF CHILDREN WILL HELP REDUCE STUNTING IN BORENA—MAKING CHILDREN MORE PRODUCTIVE MEMBERS OF SOCIETY OVER THE LONG TERM.**

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**REFERENCES**


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