Key messages



Kutupalong Makeshift Settlements, Cox's Bazar, Bangladesh







CONTENTS

IN	TRODUCTION	3
KEY I	FINDINGS	3
1.	HEALTH	3
2.	NUTRITION AND CARE PRACTICES	6
3.	FOOD SECURITY AND LIVELIHOODS	8
4.	WATER, SANITATION AND HYGIENE	9
5.	GENDER	10
6.	UNDERNUTRITION	12
7.	SUMMARY OF RESULTS AND CATEGORISATION OF RISK FACTORS	14





INTRODUCTION

Kutupalong Makeshift Site (hereafter, Kutupalong MS), located in Cox's Bazar, Bangladesh, is home to Rohingya people who fled Myanmar during the intensification of conflict in August in 2017. Despite massive multi-sectoral humanitarian interventions, undernutrition in the



settlements remains a public health concern, while the context is shifting from the emergency phase to a protracted crisis phase. This highlights a necessity to clearly understand the causal mechanisms of undernutrition to support programming across all sectors.

For this reason, Action Against Hunger, together with its partners, sought to undertake a Link NCA study in Kutupalong MS with an objective to deepen the understanding of the root causes of undernutrition in the settlements in order to prioritise and adapt ongoing and future interventions to community's most urgent needs and possibly to sustainably reduce undernutrition in the study zone.

The exclusive geographic focus of this Link NCA study is Kutupalong extension sites (Camp 1 to 20) in Ukhiya upazila.

Figure 1: Kutupalong Makeshift Settlements by Outpatient Therapeutic Programme catchment area¹

KEY FINDINGS

1. HEALTH

The Rohingya community in Kutupalong MS actively seek health care from a wide-range of different providers. Free primary and secondary health care facilities are provided in camps and are typically managed by international humanitarian organisations. In addition to this cost free treatment, the Rohingya community in Kutupalong MS pay fees for medical care from a variety of other sources. 'Local' (i.e. Bangladeshi) doctors and pharmacists deliver services to the community at a fee. 'Myanmar' health care providers – doctors, nurses and pharmacists who now live in Bangladesh – also provide paid-for medical treatment. Furthermore, patients are able to self-medicate, because Kutupalong MS has a burgeoning black market for drugs and other medical supplies. Finally, Rohingya people continue to receive treatment from *hazar's*,² herbal medicine

¹ Source: Nutrition Sector, April 2019.

² Hazar's are traditional healers that practice medicine in the Rohingya community.





practitioners, traditional birthing attendants, *imams*³ and religious healers. Therapeutic journeys between these different providers are complex. There is no single community preference or unified trajectory. Instead, Rohingya people in Kutupalong MS negotiate multiple types of paid or free and qualified or unqualified medical care in convoluted patterns.

Dissatisfaction with the free health care provided in the camp is rooted in long queues and waiting times, which means mean that parents often start the day in the health centre with a child with chronic diarrhoea or fever, only to become frustrated and leaving without securing an appointment. In such circumstances, it is common for caregivers to spend money to see for-profit providers or for the child to go without any medical care. In other instances, parents may explore alternative treatment options, seeking the second opinion, after experiencing short consultations at the free healthcare facilities.

In addition, the Rohingya people and qualified health care professionals working in Kutupalong MS have divergent definitions of what constitutes quality medical treatment. This is a source of mutual frustration. Rohingya people typically want one medicine to be provided for every symptom. Patients become even more dissatisfied if instead of a medicine the doctor recommends behaviour change. There is also a strong community preference for injectable forms of medicine over oral administration. When pills are provided by the camp health facility, it is therefore common for them to be sold in the market place and preferred alternatives to be purchased.

Gender barriers also play a role in access to healthcare. One of the advantages of 'Myanmar' doctors or pharmacists and *hazar's* is that no travel is necessary because they will visit the home. This is extremely valued as it means that women don't have to leave the house and therefore comply with rules restricting female movement. In addition, as all care giving duties fall on females within the household, mothers are often prevented from taking a sick child to the medical centre due to concerns about who would look after his or her siblings in the home. Furthermore, females are reluctant to be treated by male medical staff (especially for antenatal, postnatal, sexual and reproductive health issues)⁴. This problem is exasperated by the struggle to recruit female medical practitioners in Kutupalong MS.

The Rohingya community tends to agree that it is difficult to maintain child health in the Kutupalong MS environment, especially as cleanliness is strongly associated with health. The makeshift settlements are perceived as unclean. Parents, who are unable to provide shoes or clean clothes since the migration, experience shame and think that their children are more susceptible to poor health outcomes.

According to the Link NCA Risk Factor Survey, an estimated 48.7% [43.3-54.1] of children had fever over the last 14 days. Fewer children reportedly experienced other illnesses, such as diarrhoea (27.6% [CI: 22.7-32.4]) and cough or difficulty breathing (9.7% [6.1-13.4]).⁵ Subsequent analysis considering anthropometric measurements and haemoglobin levels of children in the

³ In the Islamic faith, an *imam* is someone who leads prayers in a mosque.

⁴ Source: Action Against Hunger UK, Cox's Bazar Refugee Settlements, Coverage survey, August-September 2018: <u>https://www.acutemalnutrition.org/en/resource-library/2jKDml3rv3oBAi8xV7mhws</u>.

⁵ It should be noted that a prevalence estimate from surveys conducted in the summer season may be higher than this figure. October, when data collection for Link NCA was collected, is generally considered to be a month when diarrhoea prevalence is at a moderate to low level. For more details on this, reference the seasonal calendar of household diseases.





household revealed a significant association between fever and wasting and/or underweight. Cough and diarrhoea were not significantly associated with nutrition outcomes.

Furthermore, the Link NCA Risk Factor Survey revealed that 78.7% [CI: 71.4-85.94] of children were vaccinated against measles⁶ while 61.3% [48.6-74.02] of children in the sample received Vitamin A supplementation and 69.7% [62.3-77.2] of children were dewormed in the six months prior to the data collection. Subsequent analyses of these indicators with anthropometric measurements and haemoglobin levels of children revealed that measles vaccination was weakly protective of wasting [p-value <0.1] and children who had received vitamin A supplementation were less likely to be anaemic. Children who were dewormed were less likely to be wasted or anaemic.

Gender shapes views about the ideal size of a Rohingya family. Rohingya men consistently state that they want a minimum of 10 to 12 children. Although women in the community often agree with this aspiration, especially when they are in a public setting, there is in reality more ambiguity in the female view about the ideal family size. To a substantial extent, the differences in opinion between males and females on this subject can be explained by men's limited caregiving role. Men face almost no workload or labour costs associated with having more children and having a larger family is indicative of wealth and male virility.

Only 8.9% [CI: 5.6-12.2] of households sampled in the Link NCA Risk Factor Survey were composed of one to three members. The majority (64.3% [57.9-70.8]) of households had four to seven members. Nearly one quarter (24.5% [18.8-30.2]) of households sampled had eight to ten people. Additionally, 2.3% [0-4.62] of households in the survey had 11 members or more. Subsequent analyses considering anthropometric measurements and haemoglobin levels of children in the household revealed a significant association between these indicators, as children who lived in households with eight to ten people were less likely to be anaemic. In addition, children in households with more than 11 members were more likely to be stunted.

For both Rohingya people and health professionals in Kutupalong MS, there is a strong belief that low birth spacing and undernutrition are closely linked. Yet women in Kutupalong MS face substantial barriers, which limit their ability to space birth and plan pregnancies. Contraception is highly stigmatised and viewed as contrary to Islamic teaching.⁷ Becoming pregnant is considered to be an instruction from Allah to have a child. Any form of contraception is therefore contrary to God's will. The concept of an '*unwanted child*' is also a taboo in Rohingya culture. It is commonly said that every child is a '*spiritual blessing*' or a '*blessing from God*'. As a consequence, 90.6% [CI: 85.9-95.28] of pregnancies in Kutupalong MS were reported as wanted. Subsequent analysis considering anthropometric measurements and haemoglobin levels of children in the household revealed no significant association between these indicators, as children whose mother did not desire their previous pregnancy were no more or less likely to be wasted, stunted, underweight, or anaemic.

In the Link NCA Risk Factor Survey sample, the mean length of space between births was 2.4 years [CI: 2.3-2.5]. For 8.41% [CI: 3.8-13.07] of households in the sample, the youngest children

⁶ Per card confirmation and/or caregiver recall.

⁷ Source: Women's Refugee Commission, 'A Clear Case for Need and Demand: Accessing Contraceptive Services for Rohingya Women and Girls in Cox's Bazar', 2019: <u>https://www.womensrefugeecommission.org/research-resources/contraceptive-service-delivery-in-the-refugee-camps-of-cox-s-bazar-bangladesh/</u>.





were less than 12 months apart in age. Subsequent analyses of anthropometric measurements and haemoglobin levels revealed a significant association with birth spacing of less than 12 months and underweight, meaning children born less than one year after their next oldest sibling are more likely to be underweight.

Nearly 54.1% [44.1-64.2] of women in the Link NCA Risk Factor Survey sample had at least one prenatal care appointment during their last pregnancy. It was also estimated that 90.6% [86-95.5] of women gave birth to their most recent child at home. This rate seems to be substantially higher that the rate set against facility-based deliveries of 52.9%, estimated in December 2019 on the basis of CHWG data. Subsequent analysis considering anthropometric measurements and haemoglobin levels of children in the household revealed no significant association between antenatal care and nutrition outcomes, meaning that children whose mother attended a prenatal care appointment were not more or less likely to be wasted, stunted, underweight, or anaemic. The same observation was noted for children of mothers who gave birth at home.

Low birth spacing is perceived as linked to other poor caregiver practices. Having multiple younger children increases the workload of women and especially tasks related to fetching water and washing clothes. Mothers with larger families are therefore considered to be more 'stressed' and 'careless' than those with only a small number of children. The effect of this is that low birth spacing leads to more unscheduled meal times or there not being enough time in the day to wash children.

According to the Link NCA Risk Factor Survey, 39.3% [31.77-47.45] of children were carried everywhere with their mother while 22.4% [16.6-29.4] of children were entrusted to a grandparent when a mother needed someone to watch the child. Fewer (20.8% [15.8-27.0]) children were watched by an older sibling less than 18 years old. Only 10.5% [7.1-15.4] of children were watched by the father when it was needed. Children who were carried with their mother everywhere were more likely to be wasted, while children who were watched by a grandparent were potentially more likely to be anaemic [p-value <0.1]. Child care by an older sibling less than 18 years old was a weak risk factor for wasting and anaemia. Child care by the father was not associated with child nutrition outcomes.

2. NUTRITION AND CARE PRACTICES

Rice is the staple food in Kutupalong MS. Rohingya people consider pulses to be undesirable and a 'poor person's food,' as well as a cause of diarrhoea. In general, the 2017 migration caused a reduction in the variety of food types consumed by the households. Food products with flour, particularly roti, paratha or noodles, are highly prized by the community but rarely eaten in Kutupalong MS. A recurrent complaint from Rohingya people living in this study area is that they cannot afford to purchase eggs, meat and fish.

The Rohingya community fast during Ramadan and sporadically throughout other religious holidays. Approximately 45 days per year are spent fasting. Pregnant and lactating women fully participate in all of the community's fasting practices as it is considered a non-negotiable religious commitment ('*farz*') for all adult Muslims. Being pregnant and fasting concurrently is considered '*a double blessing from Allah*'.

The average MUAC measurement for mothers in the Link NCA Risk Factor Survey sample was 264.3mm [CI: 259.6-268.9]. Subsequent analyses with this indicator and measurements of





children in the household revealed a significant association with mother's MUAC, underweight, and anaemia, meaning children whose mothers had higher MUAC were significantly less likely to be underweight or anaemic. Higher maternal MUAC was weakly protective of stunting [p-value <0.1].

Community beliefs and practices which constrain optimal breastfeeding practice in Kutupalong MS are multiple and extensive. Typically as soon as another child has been conceived, mothers will stop breastfeeding other children. Breastmilk that is '*intended for the younger child*' and '*has been provided by Allah for the new baby*' is thought to cause diarrhoea or vomiting if consumed by an older child. This belief prohibits the concurrent breastfeeding of multiple children and, combined with low birth spacing, leads to suboptimal breastfeeding practices. The community understand that breaking prolonged or exclusive breastfeeding causes undernutrition but assess that this is preferable to the effects of feeding a child the 'incorrect' breastmilk.

Providing honey and water solution as a prelacteal feed and deposing of colostrum as a waste product continues to be a widespread, but far from universal, Rohingya practice in Kutupalong MS. Typically, infants are given honey for three days after birth. The honey is said to help children *"speak sweetly"* by stopping them crying. It is also believed to have medicinal properties. In Myanmar, it would be given to children under five with the aim of fighting infection. Colostrum, on the other hand, is often said to be *"dirty"* and *"useless"*. If consumed, it is said to cause vomiting. A women's nipples after child birth are also viewed to be *"unclean"* and *"harmful"* unless washed.

The Link NCA Risk Factor survey revealed that an estimated 52.2% [CI: 43.8-60.5] of households in Kutupalong MS practice optimal early initiation of breastfeeding. Subsequent analyses revealed a significant association with early initiation of breastfeeding and anaemia, meaning children who were breastfeed early were less likely to be anaemic.

The type of foods first introduced to infants in the Rohingya community has undergone substantial change since the migration of 2017. Rice remains a staple in both Bangladesh as well as Myanmar and is preferred for young children because it is said to give them energy. Overall, there was a tendency to introduce fewer fruits and vegetables in Bangladesh compared to Myanmar. While living in Myanmar, gourds and leafy vegetables could be grown on the household smallholding, but in the camps have become expensive items. Prior to migration, it was also more common for the Rohingya community to introduce sugary foods (such as cakes, biscuits, sweets) and cow's milk. Now, young children may receive milk powder mixed with porridge, occasional dried fish, and some leafy vegetables.

The Link NCA Risk Factor Survey revealed that only 47% [39.3-54.61] of children consume more than four food groups. Subsequent analyses taking into account the anthropometric measurements and haemoglobin levels of children within the household, revealed that children who had consumed at least four food groups were less likely to be wasted, underweight, or anaemic. A child's haemoglobin count significantly increased as the total number of food groups eaten increased. Children who had consumed fruits and vegetables in the prior 24 hours were less likely to be wasted or underweight. Dietary diversity was not significantly associated with stunting, meaning children who had consumed more than four food groups were no more or less likely to be stunted.





3. FOOD SECURITY AND LIVELIHOODS

The most common income generating activity in Myanmar was agricultural work with the vast majority of this population living on a smallholding or farm. There was a high-degree of self-subsistence among the Rohingya community prior to the move to Bangladesh with most families relying on local markets for only a minority of their food consumption needs. Even the poorest community members could usually borrow land from others. After agriculture, the most common forms of employment were labour work and housekeeping. Others would collect wood and bamboo to sell on the market. More educated community members would sometimes work as teachers, although the Rohingya people faced difficulties in being appointed to this role in Myanmar due to discrimination.

Employment opportunities for Rohingya people are scarce due to movement restrictions which makes travelling outside the camps illegal. Despite these legal restrictions, there is a variety of different income generation methods used by the community, such as illegal work on farms or local factories outside of the camps, shop keeping, work for an NGO, daily construction and labour, or selling aid.

Per the Link NCA Risk Factor Survey, 82.4% [76.3-88.4] of households relied on humanitarian assistance as their main source of income. Further analysis taking into consideration the anthropometric indicators and haemoglobin levels of children in the household indicated a potentially protective [p-value <0.1] relationship between humanitarian assistance and stunting, in that children in these households were less likely to be stunted. Relying on assistance is not, however, a risk factor for wasting, underweight or anaemia. On the other hand, children in households dependent on humanitarian assistance were significantly less likely to have acceptable dietary diversity.

The coping strategies adopted by this community in Bangladesh have been influenced by pre-2017 experiences in Myanmar. Rohingya culture is strongly linked to the storage and sale of food items to mitigate periods of financial strain. Prior to moving to Kutupalong, each Rohingya household would store non-perishable foods (such as rice, seeds, chili and oil) only to sell them again in the monsoon season when earnings from agriculture were low. Now that the community lives in Bangladesh, the seasonal variation in food availability is less severe. Nevertheless, this tradition of storing and preserving food continues in the form of selling aid: household will often build up reserves of rice or pulses in order to prepare for times when there is no other method to generate an income.

In the Link NCA Risk Factor Survey, an estimated 13.7% [CI: 7.6-19.83] of households reported selling or exchanging food aid. Further analysis taking into consideration the anthropometric indicators and haemoglobin levels of children in the household demonstrated no statistical association: selling or exchanging food assistance is therefore not a risk factor for wasting, stunting, underweight or anaemia. In addition, the community reported that the frequency and level of sold aid is significantly lower among e-vouchers beneficiaries compared to in-kind recipients, so it is anticipated that the prevalence of this coping strategy will decline over time as GFD is phased out across the camps.

Market choice is dependent on distance, price and availability. Sometimes the commute takes precedence over price and availability. For example, even if a market does not offer all products needed and the prices are higher than elsewhere, people would still visit this market if the distance





is shorter and they don't need to pay for a bus fare. Some participants explained that they prefer to buy their products from Rohingya (as opposed to Bangladeshi) market stallholders as going to the market to purchase food is a social occasion and an opportunity to converse with the market stall holder. In addition, Rohingya to Rohingya interactions are characterised by a higher degree of trust.

4. WATER, SANITATION AND HYGIENE

Prior to migration to Bangladesh, each Rohingya household tended to have access to their own protected tube wells. Now in Bangladesh, there were only communal sources of water available. Accessibility to the water sources varies, depending mainly on the location of the household and tube well.

In the qualitative component of the Link NCA study, participants reported spending up to 30 minutes travelling to the tube well. A 2019 assessment found that 31 per cent of households reported a water collection time exceeding 30 minutes⁸. Link NCA qualitative evidence also suggests that queuing at the water source can lead to waiting times of 20 minutes to two hours. These wait times add to women's workload and cause marital tensions as females break rules restricting movement in public places.

According to the Link NCA Risk Factor Survey, an estimated 92.2% [CI: 85.4-99.05] of the population have access to a functioning tube well or hand pump. However, 55.5% [42.5-68.39] of households reported that distance was a barrier which limited water access. Further analyses taking into consideration the anthropometric measurements and haemoglobin levels of children in the household demonstrated that no significant association between a type of water source and nutrition outcomes and the same observation was also noted for distance to a water point.

Over four in five [82.2% [77-87.4] of households cover the water storage unit to protect water quality. Far fewer [32.5% [22.2-42.76] households in the sample treated their water. Further analysis taking into consideration the anthropometric indicators and haemoglobin levels of children in the household revealed a significant association between these indicators, meaning that children in households were the water storage unit was covered were less likely to be underweight while the household water treatment was noted as a risk factor for anaemia. This result may seem counter-intuitive, however, there some research suggests that excess chlorine may be linked to anaemia by damaging the hematopoietic system⁹. No significant association was observed between household water treatment and wasting, stunting or underweight in Kutupalong MS.

Handwashing and other hygiene practices were easier to undertake in Myanmar compared to the refugee camps in Bangladesh, as water and soap were more freely available. Cooking with unwashed hands is considered to be a sin. Access to soap is the most common reason why community members do not wash their hands. However, findings of the Link NCA Risk Factor Survey, likely reflecting humanitarian assistance; show that 93.4% [89.3-95.6] of children's caregivers confirmed the presence of soap in the household. Subsequent analyses taking into

⁸ Source: REACH Initiative, UNICEF and WASH Cluster, *Water, Sanitation and Hygiene* (WASH) Household Dry Season Follow-up Assessment, May 2019: <u>https://reliefweb.int/report/bangladesh/water-sanitation-and-hygiene-wash-household-dry-season-follow-assessment-may-7</u>.

⁹ See, for instance, A.A. Moshtaghie et al., 'Study of the Effect of Residual Chlorine on Serum Iron and Related Parameters', Medical Journal of the Islamic Republic of Iran, 1996.





account measurements of children revealed a significant association between these indicators, meaning that children in households with the confirmed presence of soap were less likely to be stunted.

In Myanmar, the majority of Rohingya families have their own latrines next to their home and separate latrines for men and women. A new latrine would be dug every year, the location would rotate and the old facility would be filled in. After migration however, again it was impossible to retain this practice in Kutupalong MS due to the area's population density. However, due to intense humanitarian assistance, nearly all [97.2% [93.7-100.72] of the Link NCA Risk Factor Survey sample reported using an improved sanitation facility. Subsequent analyses taking into consideration the measurements of children in the home revealed no significant association between this indicator and nutrition outcomes.

5. GENDER

The age at which Rohingya people marry has varied over time. In general, however, 14 to 18 years old is considered the ideal age range for women to be married. Rohingya men can find a marriage partner at any age, but it is considered optimal for them to be at least two years older than their wives.

Adolescent marriages in Kutupalong MS peaked during the immediate aftermath of the migration to Bangladesh. In Myanmar, the government and a discriminatory legal system limited the number of Rohingya couples who could marry. Without pressure from external authorities in Bangladesh, there was a tendency for early marriage in the Rohingya community to increase. However, since the beginning of 2019, the camp-in-charge (CiC) verify proof of age before granting a marriage licence. If the CiC finds adolescents cohabiting with a common-law marriage, they will separate the union and return the young people to their parents. Thus the period prior to the introduction of these new CiC policies and after arriving in Kutupalong MS was associated with freedom to practice early marriage. Many of the reasons why Rohingya people took advantage of this new opportunity are not only related to the 2017 migration. Fear of sexual assault and harassment before marriage drives the Rohingya inclination to marry early. The loss of virginity or sexual purity prior to securing a marriage contract reduces women's ability to find a husband. To mitigate this risk, it is rational for women to marry as soon as they are considered sexually desirable by men (which in this community is 14 to 15 years old). Finally, parents are believed to have committed a sin if they live in the same house as unmarried daughters who are menstruating. The severity of this sin increases the longer it has been since the daughter has begun her periods.

These preoccupations about young women living together in the same house as their parents became more pronounced after the 2017 migration. For most Rohingya people, the transition from life in Myanmar to Kutupalong MS involved a reduction in living space. Typically, after the migration all family members sleep in the same room. Adolescent women and men from the same family sharing a bedroom is forbidden in Islam. Thus, increased congestion within homes resulted in parents adopting an early marriage strategy.

Rohingya marriage rules tend to disadvantage women at the expense of ensuring male power. As an example, women are required to pay a new dowry if they want to remarry. For men, on the other hand, a new marriage – as either a consequence of polygamy or divorce – is profitable because his family receives the payment.





The Link NCA Risk Factor survey estimated that the average age of marriage for Rohingya women in Kutupalong MS at 16.9 years old. The average age of mothers in the Link NCA Risk Factor Survey sample was 27 years old [CI: 26.1-27.9]. Subsequent analyses taking into account the anthropometric indicators and haemoglobin levels of children in the household demonstrated no significant associations between these indicators, meaning that the mean age women marry appears to be unrelated to wasting, stunting, wasting and anaemia. However, a significant association was observed between maternal age and anaemia, meaning that children with older mothers were less likely to be anaemic.

Being unable to move freely in public spaces severely limits the income generating powers of women. Occasionally in Kutupalong MS, women work as teachers or NGO paid volunteers. The only other opportunity women have to generate an income independently of their husbands is to sell aid. The decision to sell food aid is most often made by women, sometimes in secret without husband's knowledge. These exchanges normally take two forms. Firstly, the market stall seller walks round the camp to collect the unwanted pulses and gives taka in return to the woman. Note that this process has been designed so that women can remain within the house and don't have to go to the market themselves. Secondly, they can also use the aid directly as currency. One common practice is for mothers to send the child to the shops with a cup of rice to exchange it for snacks. For the most part, women use the proceeds from the sale of food rations to purchase preferred food items (but some admit to purchasing clothes instead).

The Link NCA Risk Factor Survey estimated that only 10.5% [CI: 4.9-16.21] of women in sampled households are market decision-makers. Even fewer [8.5% [CI: 4.6-12.4] mothers are making decisions related to health while 9% [CI: 5.6-12.4] of mothers make decisions related to household earnings. Over four in five mothers [84.1%, 77.3-89] were involved in zero of the surveyed decisions. Further analysis considering the anthropometric measurements and haemoglobin levels of children in the household, demonstrates no statistical association between female decision making power and wasting, stunting, underweight and anaemia.

Using a 95 per cent confidence interval, it was estimated that between 7.4% and 19.1% of households in Kutupalong MS are headed by women and girls. In general, female headed households are only socially acceptable when there is no male present in the household. Analysis of the risk factor survey reveals that children from female headed households were no more or less likely than other children to be malnourished (either wasting, stunting or underweight) or anaemic.

The workload of women has declined since migration. In Myanmar, a typical Rohingya woman would have at least ten hours of household and agricultural labour per day. By contrast in Kutupalong MS, women typically estimated that they do approximately four to five hours of work each day. Over half of sampled females [54.2% [46.9-61.6] had a medium to heavy workload. As a woman's workload increased, her child's HAZ potentially decreased [p-value <0.1]. As a woman's workload increased, scaled caregiver-child interactions significantly decreased, indicating a possible relationship between stress and childcare.

Prior to migration, the daily routine of men was built around agriculture. Due to the shortage of employment and income generating opportunities in Kutupalong MS, there have been substantial changes to this daily schedule accompanied by an increase in the religiosity. In Myanmar, men prayed only five times a day due to agricultural commitments. In Bangladesh, Rohingya men pray





eight times a day and their community activities are centred on Islamic lectures or Islamic school attendance.

Without work, men spend the day "roaming" outside the family home. They attempt to fill up the day talking with friends, visiting tea stalls, smoking and chewing betel nut (an addictive stimulant with effects similar to nicotine or caffeine). It is commonly estimated by the community that the prevalence of tobacco consumption for men has increased from around 30 per cent to 80 per cent since migration. Boredom sometimes even leads men to pass the day continuously walking in circles around the perimeter of their camps. Child-care only plays a limited role in the daily routine of Rohingya men in both Kutupalong MS and Myanmar. Everyday caregiving activities performed by males in the camps are limited to taking children for walks around the local area, accompanying children to the market to buy them snacks and playing with children or keeping them on their lap.

As "outside the home" is considered a male space, without an occupation external to the household, men have nowhere to go. Due to restrictions on female movement, the home is seen as being the domain of women. Wives ask their husbands to leave the family home during the day. When men return to the family home at meal times, this often causes marital tension and domestic violence with disagreements about food being the most common trigger. Domestic violence incidence has increased since the community arrived in Kutupalong MS. Women say that they are most likely to be beaten at midday.

Men describe their lives when they unemployed as "tense" and "stressful". They report that the lack of work leads to them developing "high blood pressure" and "feeling restless". Being inactive and sitting around all day leads to "pains in the bones" and movement difficulties. The lack of activities for men in Kutupalong MS intensifies the trauma experienced during the 2017 displacement. Conversations when men are at the tea room or "roaming" around the camp are often focused on the same topic of returning to Myanmar ("when will they return?", "how will they go?" and "is it safe to go back?"). The subject of repatriation is an obsession for the men of Kutupalong MS and they report that it is sometimes difficult for them to think about anything else.

6. UNDERNUTRITION

The anthropometric data collection findings reveal a prevalence of global acute malnutrition (GAM) on the basis of weight-for-height z-score at 11.7% [CI: 8.4-16.0]. The prevalence of severe acute malnutrition (SAM), according to the same criterion, was estimated at 0.8% [0.2-2.4]. The prevalence of global chronic malnutrition (GCM) is estimated to be 33.6% [27.9-39.8]. 29.1% [24.3-34.4] of children are underweight.

References	Indicators		Results [95% CI]	
\\/LI7	Z-scores and/or	Global Acute Malnutrition W/H <-2 z and / or oedema	11.7 % [8.4 - 16.0]	
VVHZ	(N =386)	Severe Acute Malnutrition W/H <-3 z and / or oedema	0.8 % [0.2 - 2.4]	
1147	Global Chronic M H / A <-2 z	Global Chronic Malnutrition H / A <-2 z	33.6 % [27.9 - 39.8]	
ΠΑΖ	(N =381)	Severe Chronic Malnutrition H/A <-3z	11.7 % [8.4 - 16.0] 0.8 % [0.2 - 2.4] 33.6 % [27.9 - 39.8] 5.5 % [3.6 - 8.4]	





Z-scores	Global Underweight W/A <-2z	29.1 % [24.3 - 34.4]	
(N =385)	Severe Underweight W/A< -3z	4.2 % [2.3 - 7.3]	
Age = 6-59 months	Global Acute Malnutrition (MUAC <125mm) and/or oedema	5.4 % [3.3 - 8.9]	
(N =386)	Severe Acute Malnutrition (MUAC <115mm) and/or oedema	0.0 % [0.0 - 0.0]	
	Z-scores (N =385) Age = 6-59 months (N =386)	Z-scores (N =385) Global Underweight W/A <-2z	

Table 1: Summary of anthropometric results

It is estimated that 14.1% [9.9-19.8] of boys are classified as GAM on the basis of weight for height z-score compared to 9% [5.7-14.1] of girls. However, this difference is not statistically significant. According to the same criterion, it is one per cent of boys, who are categorised as SAM compared to 0.5% of girls. Boys were significantly more likely to be underweight than girls; however, prevalence differences by gender were not significant for wasting, stunting, or anaemia.

Community perception of undernutrition

A swollen abdomen ("*pet fola*" or "*pet er poka*") or swelling in other parts of the belly is often said to be caused by the consumption of insects. It is believed that when children play outside they mistakenly bugs or worms which later cause body parts to enlarge. The reason why this is thought to occur is that the insects initiate a reaction which causes the spleen to malfunction. Other causes of swelling in the abdomen are said to include the consumption of wheat soya blend Super Cereal. The coarseness and bitterness of this product is believed to result in "digestion problems" for children.

In general, the Rohingya community in Kutupalong MS believe that weight loss, thinness and "sunken eyes" are mostly caused by factors related to sanitation and hygiene. When presented with flashcards depicting marasmus symptoms, it was rare that the focus group participants said that insufficient dietary intake was the cause of the disease. It was more common for the Link NCA research team to be told that "unflushed drains", "no handwashing", "being unable to wear sandals while using the latrine" and "long nails" were responsible for a child becoming wasted. Bad smells, particularly from drains or latrines, are often believed to be responsible for children being too thin. It is thought that living in close proximity to unpleasant smells leads to diarrhoea and therefore wasting.

Boys are thought to be more vulnerable to these symptoms. This is because they are believed to be less hygienic than girls. For girls, cleanliness is highly valued and viewed as a female virtue. They are also said to play outside more than girls and as a result are more likely to encounter hygiene risks (such as uncleaned drains and latrines).

Extreme thinness, particularly if a child is so thin their movement is restricted or limited, is often thought to be the result of evil eye. One of the most common reasons why a child may contract this type of curse is public breastfeeding and strangers looking at mothers when they are breastfeeding. The idea that moderate illness have natural causes while their more extreme counterparts are caused by supernatural beings is widespread in this community. Stunting is most often thought of as having genetic causes.





7. SUMMARY OF RESULTS AND CATEGORISATION OF RISK FACTORS

After the completion of both quantitative and qualitative data collection, Link NCA Analyst triangulated all available data sets, compared correlations for each risk factor and determined the strength of its association with undernutrition. The ratings for each hypothesized risk factor are summarized in the table below.

	Risk factor	Prevalence of risk factor according to secondary data / review of the literature	Statistical associations from the quantitative survey	Strength of the association of the risk factor with under- nutrition in the scientific literature	Association of the risk factor with seasonal and historical trends of undernutrition	Classification of the risk factor according to the results of the qualitative study	Classification of the risk factor by the communities	Interpretation / Impact of the risk factor
A	Use of traditional health providers	++	N/A	++	+	++	+	Important
В	Limited access to health services	++	++	++	-	+++	+++	Important
С	Low birth spacing / unwanted pregnancies	+++	++	++	++	+++	+++	Major
D	Parental stress	++	N/A	++	+	+++	++	Important
E	Non-optimal breast- feeding practices	+	+	+++	-	+++	+++	Important
F	Non-optimal IYFC practices	++	++	+++	-	+	+	Important
G	Low quality of interactions between a care provider and a child	+	+	+	-	++	+	Minor
Н	Low dietary diversity	++	N/A	++	++	+++	+++	Important
I	Low diversity, access and availability of income sources for households	+++	+	++	+	+++	+++	Important
J	Malfunctioning market or supply system	N/A	N/A	+	+	N/A	N/A	Rejected
К	Low coping capacities	+	-	+++	-	+	N/A	Minor
L	Low access and availability of water (quality and quantity)	+	-	+++	+	+	+	Minor
М	Non-optimal water management	+	+	++	-	+	N/A	Minor
Ν	Poor sanitation practices	+++	N/A	++	+	++	++	Important
0	Poor hygiene practices	+++	++	++	-	+++	+++	Major





Р	Heavy workload of women	+	+	++	-	+	+	Minor
Q	Low female autonomy / Low decision-making power	++	-	+	-	+++	+	Important
R	Early marriages and/or early pregnancies	+++	+	+	+++	+++	+++	Major
S	Low nutritional status of women	+	N/A	+++	-	++	N/A	Important

Table 2: Summary of risk factor ratings

Using data provided by the communities during the qualitative inquiry, the Link NCA Analyst developed sectoral causal pathways for the following nutritional outcomes: wasting, stunting, undernutrition and anaemia. The simplified outlines are presented below. By differentiating between the causes of nutritional deficiencies, this exercise highlights how response strategies need to be tailored to the respective types of undernutrition.

Wasting and underweight

The most vulnerable group to acute malnutrition were children under 24 months of age and children of mothers of younger age as their vulnerability to wasting weakly decreased as mother's age increased. Male children appear to be most vulnerable to underweight.

An important trigger to undernutrition is a transition from Myanmar to Bangladesh and the implied loss of household income generating activities, which translate into a low household dietary diversity. The consumption of more than four food groups was identified as a protective factor against both acute malnutrition and underweight. A similar link with wasting and underweight was observed among children who consumed fruits and vegetables. In other words, it can be inferred that sub-optimal complementary feeding practices lead to inadequate nutritional intake and therefore undernutrition. The available data further suggests that children living in households with more than 7 members and children living in households with humanitarian assistance as their main source of income are less likely to attain an acceptable individual dietary diversity (IDDS) score.

However, a dominant pathway to underweight seems to take roots in limited female autonomy and decision-making power, which leads to poor-birth spacing. Children who were less than 12 months apart from their siblings were more likely to be underweight, especially if their mother had the first pregnancy under 18 years of age. Early or repetitive pregnancies potentially affect mother's nutritional status, which was identified as a protective factor against underweight. In addition, poor birth-spacing is likely to increase mother's workload, which may lower her capacities to fully attend to her children. The available data suggests that caregiver's workload significantly increased when a number of children under five years of age in the household increased. In this respect it is important to highlight a potential vicious cycle as heavy workload of women potentially leads to a lower exposure to relevant sensitisation messages, which then translates into poor birth-spacing and further increases mother's workload.







Figure 2: Causal pathway for wasting and underweight¹⁰

According to the available data, the mother's workload influences her child care practices as the likelihood of inappropriate child care practices increases with the increase of mother's workload. In addition, women's multiple household chores can exacerbate deterrents to proper water management, such as covering the water storage, which was identified as a protective risk factor against underweight. The data also suggests that children are more likely to be unclean if their mother's first pregnancy occurred before she reached 18 years of age.

Exacerbated by low female decision-making power and restrictions on female movement, woman's workload also translates into a low use of health services. This may result in non-optimal treatment of children with common illnesses and/or their prevention. Measles vaccination and deworming are potentially protective factors against the wasting while children who were born at home were potentially more likely to be underweight. Children suffering from fever during the last two weeks prior to the data collection were more likely to be wasted or underweight, especially if child was observed unclean during the surveyors' stay in the household.

It is important to note that the Link NCA study was conducted in Kutupalong MS approximately two years after the community's arrival in Bangladesh. Generally speaking, the cohort of children under two years old in this study have spent their whole lives in Kutupalong MS.

Stunting

The most vulnerable group to chronic malnutrition were children over 24 months of age and children living in households with more than 11 members.

¹⁰ Cells highlighted in dark red signify risk factors with a significant link to acute malnutrition (p value <0.05) while cells highlighted in light red signify risk factors with a potential link to acute malnutrition (p value <0.1). Cells highlighted in dark orange signify risk factors with a significant link to underweight (p value <0.05) while cells highlighted in light orange signify risk factors with a potential link to underweight (p value <0.05) while cells highlighted in both dark red and dark orange signify risk factors with a significant link to acute malnutrition AND underweight (p value <0.05). Cells highlighted in dark green signify protective factors (p value <0.05) while cells highlighted in light green signify risk a potentially protective risk factor (p value <0.1).







Figure 3: Causal pathway for stunting¹¹

Similarly to acute malnutrition and underweight, a dominant pathway to stunting seems to take roots in limited female autonomy and decision-making power, which leads to poor-birth spacing. Children who were less than 12 months apart from their siblings were potentially more likely to be stunted, especially if their mother had the first pregnancy under 18 years of age. Early or repetitive pregnancies potentially affect mother's nutritional status, which was identified as a weakly protective factor against stunting. In addition, poor birth-spacing is likely to increase mother's workload, which may lower her capacities to fully attend to her children. Medium to heavy workload, as reported by caregivers in the survey sample, was identified as a potential risk factor of chronic malnutrition. The available data also suggests that caregiver's workload significantly increased when a number of children under five years of age in the household increased. In this respect it is important to highlight a potential vicious cycle as heavy workload of women potentially leads to a lower exposure to relevant sensitisation messages, which then translates into poor birth-spacing and further increases mother's workload.

According to the available data, the mother's workload influences her child care practices as the likelihood of inappropriate child care practices increases with the increase of mother's workload. Children, who were during the data collection observed as having appropriate interactions with their caregiver, were less likely to be stunted. On a hygiene practices side, a covered water storage was identified as a weakly protective risk factor against stunting while the presence of soap in the household was significantly linked with lower odds of chronic malnutrition among children under 5 years of age. The data also suggests that children whose mother's first pregnancy occurred before she reached 18 years of age were more likely to be observed unclean.

¹¹ Cells highlighted in dark red signify risk factors with a significant link to chronic malnutrition (p value <0.05) while cells highlighted in light red signify risk factors with a potential link to chronic malnutrition (p value <0.1). Cells highlighted in dark green signify protective factors (p value <0.05) while cells highlighted in light green signify risk a potentially protective risk factor (p value <0.1).





One interesting statistical association exists between humanitarian assistance and stunting. Reception of the humanitarian assistance as the main source of household income may protect a child against the risk of chronic undernutrition. Although this may seem as a slightly counter-intuitive finding, a possible explanation is that humanitarian assistance is positively associated with household income. However, it needs also be noted that children living in households benefiting from humanitarian assistance as their main source of income were less likely to achieve an acceptable individual dietary diversity score (IDDS), which may likely be linked with the modalities of such assistance.

Anaemia

Similarly to wasting, the group identified as most vulnerable to anaemia were children under 24 months of age and children of mothers of younger age as their vulnerability to anaemia significantly decreased as mother's age increased. In addition, children living in households with 4-7 members were more likely to be anaemic while children living in larger households (8-10 members) seemed to be protected against the said deficiency.

Similarly to preceding pathways, a dominant pathway to anaemia seems to take roots in limited female autonomy and decision-making power, which leads to poor-birth spacing. Children of mothers who were pregnant or breastfeeding at the time of the data collection were more likely to be anaemic. As early or repetitive pregnancies potentially affect mother's nutritional status, children of healthy mothers were less likely to be anaemic. In addition, poor birth-spacing is likely to increase mother's workload, which may lower her capacities to fully attend to her children. The available data suggests that caregiver's workload significantly increased when a number of children under five years of age in the household increased. In this respect it is important to highlight a potential vicious cycle as heavy workload of women potentially leads to a lower exposure to relevant sensitisation messages, which then translates into poor birth-spacing and further increases mother's workload.

According to the available data, the mother's workload influences her child care practices as the likelihood of inappropriate child care practices increases with the increase of mother's workload. Children of mothers, who reported an early initiation of breastfeeding, were less likely to be anaemic. On a hygiene practices side, children living in households, who reported long waiting times as a barrier of access to water were more potentially more likely to be anaemic. An interesting statistical associations was detected between water treatment and an increased likelihood of childhood anaemia in the households, meaning that children living in households who reported to treat water with chlorine were more likely to be anaemic. The hypothesis that this relationship is caused by water over treatment with chlorine warrants further investigation.

Low female decision-making power and restrictions on female movement compounded by a heavy woman's workload also translates into a low use of health services. This may result in non-optimal treatment of children with common illnesses and/or their prevention. Vitamin A supplementation and deworming were identified as significantly protective factors against anaemia.

Similarly to wasting, a complementary pathway might is likely taking roots in a transition from Myanmar to Bangladesh and the implied loss of household income generating activities, which translate into a low household dietary diversity. The consumption of more than four food groups was identified as a protective factor against anaemia. In other words, it can be inferred that suboptimal complementary feeding practices lead to inadequate nutritional intake and therefore





micronutrient deficiency. The available data further suggests that children living in households with more than 7 members and children living in households with humanitarian assistance as their main source of income are less likely to attain an acceptable individual dietary diversity (IDDS) score.



Figure 4: Causal pathways for anaemia¹²

Combined causal pathway for all nutrition outcomes

A combined pathway confirms the categorisation of three major risk factors, namely low birthspacing and/or unwanted pregnancies, early marriage/pregnancy and non-optimal hygiene practices as all nutritional outcomes are linked to them to a varying degree.

It is important to note, though, that all these risk factors are inherently linked with the living conditions of makeshift settlements, be it congestion in family homes, which may motivate an earlier marriage of adolescent girls to "clear" some space and/or household's limited income streams, which may encourage the thriving of the dowry system while limiting women's economic and decision-making autonomy. As men control the household decision-making, including the birth-spacing and family planning, while women's workload may limit their access to information through available health and nutrition services, households enter a vicious cycle of repetitive pregnancies with consequences on nutritional status of women and children. In this respect, key concerns include the utilisation of health facilities for curative and preventive treatment, inadequate hygiene practices and inadequate complementary feeding practices, which translate into a child's higher vulnerability to diseases and/or inadequate dietary intake.

A combined pathway seems to suggest a vulnerability overlap between wasting and anaemia, while the cause and effect relationship between these two nutritional outcomes was not

¹² Cells highlighted in dark purple signify risk factors with a significant link to anaemia (p value <0.05) while cells highlighted in light purple signify risk factors with a potential link to anaemia (p value <0.1). Cells highlighted in dark green signify protective factors (p value <0.05) while cells highlighted in light green signify risk a potentially protective risk factor (p value <0.1).





confirmed. However, it could be inferred that joint interventions could possibly contribute to sustainably reducing the incidence of both acute malnutrition and wasting in the studies population. The same applies to stunting and underweight, especially in the sector of water, sanitation and hygiene as the identified risk factors for these nutritional outcomes seem to overlap.



Figure 5: Causal pathways for all nutritional outcomes combined¹³

An overview of key differences in identified risk factors across nutrition outcomes is provided in the table below.

Risk factor	Wasting (WHZ)	Stunting (HAZ)	Underweight (WAZ)	Anaemia (HB)
Child's gender (male)				
Child's age (<24 months)				
Fever				
Vitamin A Supplementation				
Early initiation of breastfeeding				
Child IDDS (>4 food groups)				
Child IDDS (Fruits/Vegetables)				
Mother's age				
Mother's MUAC				
Mother currently pregnant or breast-feeding				
Birth spacing (<12 months)				
HH size: 8-10				
HH size 11+				
Water storage covered				
Water treatment				
Presence of soap				

*Red cells designate a risk factor, green cells a protective factor.

¹³ Cells highlighted in dark purple signify risk factors with a significant link to either of nutritional outcomes (p value <0.05) while cells highlighted in light purple signify risk factors with a potential link (p value <0.1). The applicable nutritional outcome is specified in the cell itself: WHZ signifying wasting, HAZ signifying stunting, WAZ signifying underweight and A signifying anaemia. Cells highlighted in dark green signify protective factors (p value <0.05) while cells highlighted in light green signify risk a potentially protective risk factor (p value <0.1). The applicable nutritional outcome is also specified in the cell itself using the same key.





8. CONCLUSION AND RECOMMENDATIONS

The analyses undertaken in this Link NCA study identified 18 risk factors that may affect the incidence of undernutrition in the study area. Following a triangulation of data from various sources, three (3) risk factors were identified as having a major impact, ten (10) risk factors were classified as having a significant impact and five (5) risk factors were considered to have a minor impact.

Among the major risk factors, two were identified in the sector of maternal health, namely low birth-spacing and/or unwanted pregnancies and early marriage/pregnancy, while the last major risk factor, non-optimal hygiene practices, was identified in the sector of water, sanitation and hygiene.

Based on these findings, the following activities are recommended to be incorporated into a multisector action plan to address the identified risk factors. The recommendations are presented by thematic area of intervention but must be taken into account dynamically for a better improvement of the nutritional situation in the study area.

 Strengthen the inter-sectoral approaches in addressing undernutrition in the makeshift settlements through an improved collaboration between Health, Nutrition, Food Security and Livelihoods, Water, Sanitation and Hygiene and Protection sectors in developing humanitarian assistance strategies and ensuring accountability in the implementation of the recommendations.

Health & Nutrition

- Mitigate predominant formal health care seeking barriers by increasing the number of trained and dedicated personnel in health facilities with the objective to reduce waiting times for consultations while extending the length of each consultation, as appropriate, thus allowing for improved communication between the health staff and caregivers. Ensure that the health staff understand the Rohingya aetiology of diseases and preferred therapeutic itineraries and adapt their communication in light of caregivers' key concerns;
- Launch a community consultation aiming to define how existing health facilities and procedures should be adapted to encourage more assisted births under the supervision of trained health personnel;
- Promote health facilities as safe spaces for women by adapting private places, where women can discreetly breastfeed. Consider using these spaces as safe information sharing spots, where women can receive information on their key concerns, including among others, tips on good nutrition to encourage the production of breastmilk in sufficient quantities, breastfeeding length and frequency, etc.
- Strengthen the IYCF-E programmes to sensitise mothers on the importance of colostrum in as a means of prevention of diseases for children under 6 months of age and an appropriate meal composition from locally available food items to ensure diversified diets and iron rich foods are provided to children under 5 years of age;
- Continue promoting maternal and child health activities within a 1000 days' window, encouraging women to complete all essential consultations, including vaccination, Vitamin A supplementation and deworming, among others, especially among younger mothers and/or children from larger households. These activities should be accompanied by meaningful sensitization sessions on optimal child feeding and child caring practices and should be





extended to adolescent girls as a preparation for their potentially upcoming role as wives and mothers;

- Strengthen the integration of community members with a medical diploma and/or exercising a health-related function in the development and dissemination of health messages to targeted populations, ensuring that the messages are adapted to their key concerns. This may include, but not be limited to, messages on appropriate birth-spacing and family planning practices, especially among men as key decision-makers, emphasizing the challenges associated with low birth spacing in Kutupalong MS;
- Support the creation and/or capacity building of forums for men and elders, in order to strengthen existing social support mechanisms in communities and households, putting a particular emphasis on emotional support and stress relief;
- Integrate the identification of child protection concerns, including violence, abuse and neglect, into ongoing health and nutrition activities, such as nutrition screening, by training the personnel on child protection principles, confidentiality, identification of signs of abuse and referral pathways, thus allowing front-line service providers to identify suspect cases and support referral for follow up but specialized home visits;
- Promote adolescent-friendly sexual and reproductive health services among adolescent mothers and/or adolescents at large as means of prevention of early pregnancy/unwanted pregnancy and non-optimal birth spacing.

Food Security and Livelihoods

- Support the diversification of income opportunities through public utility construction and maintenance activities, maximizing opportunities for Kutupalong MS residents to be hired for daily wage with an objective to rebuild and support a healthy development of self-esteem of breadwinners while alleviating high levels of stress;
- Identify potential market access opportunities and relevant vocational skills training opportunities for men, especially the youth, to further diversify household income;
- Consider an introduction of a replacement product for Super Cereal (WSB+/WSB++), which would be more palatable for community members and/or consider an introduction of humanitarian interventions based on alternative assistance transfer modalities, allowing community members to purchase food products of their choice;
- Strengthen the initiatives aiming to improve access to quality fresh fruits, vegetables and fish, including, including increasing a number of shops, stocking retail shops with fresh produce on a more regular basis or including these items in e-voucher entitlements;
- Support the creation and/or capacity building of households to set up multi-storey and/or box kitchen gardens as avenues for social support and improved dietary diversity.

Water, Sanitation and Hygiene

- Strengthen the capacity building activities for community hygiene and sanitation committees in order to encourage the maintenance of optimal practices on a community as well as household levels. This may include refresher trainings on latrine cleaning, water point maintenance and/or other issues of public health interest;
- Explore potential links between residual chlorine from water treatment methods and anaemia prevalence among children in Kutupalong MS. This may include putting more emphasis on the use of treatment methods at safe levels and closer monitoring of water treatment at a





household level, allowing to prevent waterborne diseases while limiting children's vulnerability to micronutrient deficiencies, as a consequence;

 Adjust the modalities of soap distributions, passing from blanket approaches to distributions proportional to household size to encourage optimal use by all household members.

Gender

- Address congestion in households by constructing larger structures and introducing male and female only spaces;
- Extend the number of years adolescent girls receive free schooling with an objective to encourage proper preparation for adult life and to discourage early coupling and marriages. This may include strengthening of the CiC monitoring of governmental policies on early marriage.