



Formative research to inform adolescent
programming in Guatemala
Engagement for health, nutrition and sustainable development

Full report – March 2018

Foreword

The Sustainable Development Goals call upon all countries of the world to promote the prosperity and wellbeing of all, whilst also confronting climate change. In particular, Goal 2: Zero Hunger emphasises the importance of putting an end to hunger and ensuring access to sufficient and nutritious food for all.

The high levels of chronic malnutrition in Guatemala place the country's sustainable growth at risk. The consequences of chronic malnutrition are devastating as they affect the cognitive and physical development of the affected population and as such the future productivity of the country. It is critical that efforts are focused on preventive multi-sectorial actions that address the different causes of malnutrition.

The United Nations World Food Programme in Guatemala is a key partner in the fight against malnutrition and progress towards Zero Hunger. The agency supports national efforts to promote better nutrition and health for all families, particularly those living in conditions of poverty and food insecurity.

It is important to focus action on the first thousand days of a person's life, and there is consensus that this period provides a unique 'window of opportunity' to prevent stunting. The nutrition sector is also placing increased emphasis on the need to ensure good health and nutrition during childhood and adolescence. Adolescence is a time of significant brain development and physical growth that provides a second 'window of opportunity' for both individual and collective development.

This study, very well executed by *Anthrologica*, provides an understanding on how to effectively address issues of nutrition and food with adolescents, and incorporates the perspectives of those adolescents themselves. We hope that the report will be a resource for institutions and individuals that work with adolescents and/or on nutrition, and that it will contribute to our progress towards the Sustainable Development Goals, particularly in achieving Goal 2: Zero Hunger.



Mario Touchette
Representative
World Food Programme
Guatemala

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This report documents formative research conducted in Guatemala as part of a multi-country study to inform adolescent engagement and programming for health, nutrition and sustainable development. A concise report summarising key findings and recommendations has also been produced, and a database of stakeholders working with adolescents. A report synthesising core learning across the four countries included in the project (Cambodia, Guatemala, Kenya and Uganda) was launched at the World Health Assembly in 2018.

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Executive summary

Background

Adolescence is a time of significant brain development and physical growth at a pace exceeded only by the critical first 1000 days. As identified in Sustainable Development Goal 2, Zero Hunger, addressing the nutritional needs of adolescent girls is one of the key steps towards achieving the objective of ending malnutrition by 2030. The 2013 'Maternal and Child Nutrition Series' published by *The Lancet*, the Vision 2030 Sustainable Development Goal agenda, and the Scaling Up Nutrition (SUN) movement have each played a key role in highlighting that adolescent nutrition interventions should be tailored to girls. Interventions to improve access to education, delay marriage, and prevent early pregnancies can contribute to improving adolescent girls' nutrition so they can reach their full potential. There is, however, a lack of evidence to guide the development and delivery of strategic nutritional messages and interventions for this specific target group. More research is needed on the nutritional status of adolescents globally.

In line with the global shift of attention towards adolescents, there is increased engagement and mobilisation of multi-sectoral actors around the adolescent agenda in Guatemala. According to the country's most recent Demographic Health Survey (DHS) (data from 2014-2015), 24% of the population in Guatemala is 10-19 years old. The *Plan Nacional de Desarrollo K'atun Nuestra Guatemala 2032* (National Development Policy Ka'tun 2032) spearheaded by the Office of the President, advocates for the active participation of adolescents in the social and economic life of the country. The policy highlights the importance of education, employment opportunities and sexual health services tailored to the needs of adolescents. The plan also notes the need to address malnutrition nationally by engaging mothers and children under five years.

Guatemala suffers from the 'triple burden' of malnutrition, with high rates of stunting, micronutrient deficiency and obesity in both indigenous and non-indigenous populations. The country has the fifth highest prevalence of stunting amongst children under five in the world, and the highest in Latin America. At the same time, a combination of unhealthy diet and lack of exercise (with only 50% of the population reporting to be physically active) is a key health risk for all age groups. The leading causes of death and mortality for the general population are related to unhealthy nutrition and lifestyles, including heart attacks, stroke and cardiac insufficiency (41%), cirrhosis and malignant neoplasms (14%). Diabetes is also prevalent.

Although nutrition data specific to adolescents is scarce, data collected on women of reproductive age (15-49 years) in the DHS illustrate the health challenges faced: 24% of all women and 37% of indigenous women in that age group are less than 145 cm in height, which is correlated with undernutrition in early life. In addition, 52% of women aged 15-49 years have a body mass index (BMI) above 25, indicating overweight/obesity, and 15% suffer from anaemia. It was reported that 24% of all pregnant women and 32% of all infants between 6-59 months old are anaemic. Micronutrient deficiencies (zinc, folate and vitamin B12) remain widespread. The Fill the Nutrient Gap study conducted in Guatemala in 2016 demonstrated that given current food consumption patterns it is highly likely that many adolescent girls across the country are consuming nutritionally inadequate diets and are deficient in key micronutrients.

Nutritional status impacts an individual's ability to learn, to work, to reproduce and to fight diseases. Therefore, interventions targeting nutrition are likely to affect not only the individual but also societal development, educational quality, workforce skills and productivity, economy and quality of life. Guatemala does not have a specific policy for adolescent nutrition, and adolescents are only rarely mentioned in national nutrition policies. In the *Estrategia Nacional para la Prevención de la Desnutrición Crónica 2016-2020* (ENPDC) (National Strategy for the Prevention of Chronic Malnutrition 2016-2020), the *Secretaría de Seguridad Alimentaria y Nutricional de la Presidencia de la República* (Secretariat of Food and Nutritional Security, SESAN) highlighted the elevated risk profile for overweight and obesity in adolescence. Building on the ENPDC, the Ministry of Health and Social Assistance (MSPAS) is developing a new National Strategy for the Prevention of Overweight and Obesity in Children and Adolescents, due to be published in 2018.

Research objectives

This research is part of a four-country study that is contributing to the global evidence base for adolescent nutrition. The other three countries included in the study are Cambodia, Kenya and Uganda. The research has four overall objectives:

- To assess the experiences, needs and priorities of adolescents regarding their nutrition.
- To understand the policy and programmatic environment and current practices for effectively engaging adolescents.
- To establish the preferences of adolescents regarding how they want to be engaged in programming.
- To establish user-centred recommendations for more adolescent-friendly, context-specific nutrition interventions.

Methodology

The mixed-methods, collaborative study was conducted between April and December 2017 in partnership with the SESAN. A country landscape analysis of adolescent programming recorded 40 key stakeholders working with adolescents in the country, and categorised the focus, timeframe and location of interventions, the target group (age, ethnicity, gender), modes of engagement and key programme implementers. Formative qualitative research using participatory creative methodologies elicited perspectives, experiences and suggestions from adolescents and their communities. Data was collected in three departments: Alta Verapaz, Chimaltenango and Chiquimula. In Alta Verapaz, fieldwork was conducted in Cerro Azul (rural) and Chisec (urban); in Chimaltenango, in Xzetzizi (rural) and Chimaltenango City (urban); and in Chiquimula, in Marasxo (peri-urban). A total of 399 participants from Ladino, Qu'echi', Kaqchikel and Chorti communities were purposively selected to be included in the study, and 158 data collection activities were undertaken, including focus group discussions, key informant interviews, technology surveys and participatory workshops with adolescents using a range of creative methodologies to document their voices (photowalks, graffiti walls, drawings). Informed consent and assent was given prior to participation, and the study was granted ethical clearance by the Social Science Faculty of Universidad del Valle de Guatemala. The full analysis of qualitative data used thematic analysis developed specifically for analysing data generated through applied research. Evidence-based recommendations were designed using the formative research findings and stakeholder mapping to improve nutrition-specific and nutrition-sensitive interventions for adolescents, and to highlight opportunities for adolescent engagement regarding nutrition in Guatemala.

Defining and experiencing adolescence

Adolescence is commonly understood as the life stage between the end of childhood and the beginning of adulthood. Conceptually, the United Nations defines adolescence as spanning the age range 10-19 years, although others argue for 10-24 years. Adolescence is a dynamic concept, both culturally and historically. The length, the progression and even the existence of adolescence as an interim life stage differs widely across cultures.

In Guatemala, there is not one standardised definition or age range for adolescence applied across laws and policies, and there are marked disparities between community-level definitions of adolescence and the terminology adopted at the national level. It is clear that conceptually, there is a distinct period of life that marks the transition from childhood to adulthood, although how that transition is defined, what triggers the entrance and exit between life stages, and the terminology used to describe it vary.

Age is rarely used to indicate different life stages at the community level and the markers of adulthood can be observed in individuals considerably younger than 18 years old, the legal age of majority in Guatemala. Both adults and adolescents across research sites in Guatemala described biological changes and physical growth as key markers of adolescence. Such physical changes trigger social changes, including an adolescent's shift in status in the community. It is seen to be a time when both boys and girls have to '*stop playing on the street*' and become more '*responsible*'. During early adolescence, however, the paths of girls and boys diverge, with mobility for adolescent boys increasing, whilst a girl's sphere of influence becomes more restricted to her household. The maturity of boys is often measured by the work they are able to do, particularly linked to hard farm labour (see graphic below), and their contribution to household income. When girls start menstruation, they are given more household duties and become increasingly responsible for preparing food and taking care of siblings, largely home-based activities. Marriage was identified as the main marker for the transition from adolescence into adulthood for both girls and boys of all ethnic groups and across all research sites.

It is worth noting, however, that the conceptual juxtaposition of ‘markers of adolescence’ can impede effective and efficient programme implementation. Some adolescents excluded themselves from services aimed at ‘youth’ and/or ‘adolescents’ as they self-identified as adults (given that they were already married, had a child or ‘worked on the field’), despite being in the 10-19 age group.

Food and nutrition

Food consumption trends

Across all field sites, participants concluded that it was challenging for the head of their household to provide sufficient and varied food. Adolescents living in farming communities were often dependent on the harvest for (high quality) food, and a good harvest could provide fresh vegetables, herbs, roots and various types of fruits. Farmers dependent on cash crop farming, however, preferred to sell their produce at market, and use the profit to purchase food for the family. Shops in rural areas were particularly frequented when harvests failed and other (affordable) food sources were not available. Food scarcity and food insecurity were common across all rural communities, particularly when harvests failed or the price of crops dropped.

Adolescent participants described having a uniform diet, often eating the same meal multiple times each week, or in some cases, every day. Adolescents across all locations confirmed eating a corn-based product multiple times a day, every day. Corn is the staple food in Guatemala, eaten by all sectors of the population as part of most meals, preferably in the form of corn tortillas. For indigenous communities, corn plays a central role and holds cultural significance. It is not only part of the everyday diet, but also an important source of livelihood for many small-scale producers. Consumption of maize or corn is ubiquitous in Guatemalan culture, such that participants did not always identify the cereal as an integral part of their daily diet until probed further.

Across all research sites, adolescents and their caregivers reported supplementing tortillas with beans and eggs, a typical Guatemalan meal. Adolescents in rural areas also reported usually eating fruits and vegetables from the land (*tierra*) for lunch, the most important meal of the day. In contrast, adolescents from urban areas could only name two or three fruits or vegetables (most often bananas, watermelons, tomatoes or onions) that they would eat multiple times per week, but not every day. Urban adolescents more frequently reported eating meat (beef, chicken and processed meat such as hotdogs) during lunch than did their rural counterparts, who rarely consumed meat. Differences in food consumption patterns between urban and rural areas and across different groups of the population were due to a combination of affordability, availability, preference and social-norms (discussed further below).

In urban areas, cheaply produced and pre-prepared foods are widely available from shops, food carts and (small) supermarkets, and are relatively affordable even for the poorest households. The consumption of processed, often imported, foods (noodles, canned foods like sardines, and tinned beans) was reported by poorer adolescents in both rural and urban areas. Adolescents in urban areas reported eating more fast food (*comida rapida*) given the limited availability of ‘natural’ food. The fast food for sale in *comedores* (small informal restaurants) was often more expensive than preparing food prepared at home, but still relatively affordable. Most adolescents indicated that they would drink soft drinks (*gaseosos*) at least three times per week, if not daily. Adolescents from poorer economic backgrounds did not always have the money to afford such drinks, but aspired to purchase them and would often consume soft drinks on special occasions such as weddings, graduations and birthdays. The consumption of unhealthy, fatty and sugary food was particularly common amongst urban communities and, increasingly, the rural poor.

Guatemala has a strong food processing industry that, through effective marketing and distribution, has made snack food both highly appealing and accessible, even in the most remote communities. Caregivers engaged across the field sites expressed their concern about the availability of so much ‘bad’ food near schools. Snacking was seen to be an issue facing older adolescents, both those in-school who were given pocket money because they were not eligible for school feeding programmes, and those who had left education. Adolescents confirmed that they spent their money on food that would not normally be eaten at home. They discussed the sense of independence they felt when purchasing such food, and some identified it as an opportunity to make decisions free from the restrictions of their caregivers or other influencers. They indicated that they purchased snacks because of the taste (*‘it just tastes good’*); notions about the food (*‘it gives us energy’*); and consumption associated with peer pressure and social acceptance (*‘we all buy it’*). Adolescents in rural areas also reported buying snacks because they were convenient (*‘you don’t have to prepare it’*). Adolescents who did not eat fast food, either because they could not afford it or did not have access to it, discussed their aspirations to do so. In Guatemala, being able to eat fast food is perceived to be a sign that a family has middle- or upper-class status. For example, adolescents in the participatory workshops in rural areas ‘dreamt’ of eating fried chicken in fast food restaurants.

Household food allocation

Gendered roles in terms of food preparation and allocation were reflected by all adolescent participants. Whilst household funds are usually pooled, it is the women and girls who buy foodstuffs and prepare meals. From early adolescence, girls are required to help their mother with food sourcing and preparation. In rural areas, men and boys usually receive larger portions and 'better' food 'for strength', including 'special' food that is not available to girls. An indigenous Q'eqchi' girl in Cerro Azul, for example, explained that when she and her mother had prepared tortillas, they would first serve the men, and then they would eat. Even when girls are pregnant or breastfeeding, they eat second and receive smaller portions of often less nutritious food. Adolescent girls suggested it was unfair that boys received larger portions of better food whilst the girls also had to do heavy, albeit domestic, work. To gain strength, boys were reported to supplement larger meals with additional, often unhealthy, foods (when they could afford them) including energy drinks, other soft drinks, sugary foods, coffee and alcohol.

Knowledge and food classifications

Participants used various mechanisms to classify food types and the health effects of consuming different foods. Across all research sites and regardless of ethnicity, adolescent and adult participants made a distinction between 'good' and 'bad' food. Food from the 'tierra' was seen to be 'natural', and thus was good for health. Food purchased from shops and food that was not prepared by 'mothers at home' was not seen to be 'natural' and was therefore unhealthy. Often food from shops and fast food restaurants was perceived to be 'chemical' yet was still attractive to adolescents, linked as it was to social status. Various foodstuffs were classified as 'chemical food' including energy drinks, fried chicken that was not prepared at home, frozen chicken sold in shops, all canned food and, particularly relevant for adolescents, snacks sold in colourful packaging, soft drinks and candy. Indigenous participants also made a distinction between 'hot' and 'cold' food groups when describing recommended food consumption practices and taboos.

Factors affecting adolescent nutrition

Guatemala has high rates of inequality and one of the most elevated rates of poverty in Latin America. Participants across the study identified poverty as a key barrier preventing adolescents from having a healthy and nutritious diet. Against this backdrop six interrelated themes were found to determine adolescents' access to adequate and healthy food.

Farming, land ownership and climate change

Across all research sites, the effects of climate-related vulnerabilities were evident, but particularly in more rural communities where livelihoods were dependent on the land and alternative income-generating activities were limited or non-existent. The majority of the adolescents involved in the study came from households engaged in small-scale subsistence farming. In both Alta Verapaz and Chimaltenango, adolescents attributed poor harvests (of corn, cardamom, coffee, broccoli and peas) to changing weather patterns related to climate change. As a result of the failed harvests, crop prices fluctuated, resulting in fewer household resources. With less opportunity to harvest fresh produce, adolescents confirmed they often resorted to purchasing cheap, unhealthy and processed foodstuffs such as canned goods and *fideos* (imported noodles). Participants also identified land ownership as a key cause of economic hardship across rural and urban, indigenous and non-indigenous families. Not owning land meant having to sell one's own labour to cultivate the farmland of others, leaving communities vulnerable to shocks and stresses. Water scarcity not only affected harvests, but also increased the burden of cooking and maintaining the household. This was most discussed by indigenous girls and women in rural areas. They reported having to walk longer distances to find firewood and source water to wash dirty clothes.

Income generation

Adolescents across the research sites confirmed that they often had to support their households by finding (informal) employment. Girls would most often support their caregivers by working at home doing household chores, including sourcing food, preparing meals and looking after younger siblings. Some girls assisted their mothers with paid work. Boys indicated that they started to contribute to the household's income when they were 'strong enough' and often spoke with pride that they were able to support their family. They reported working on the land with their male relatives, or being employed in the construction or agriculture sectors. Boys started work as young as ten or eleven years old, regardless of the legal working age. During times of scarcity, participants would borrow money from neighbours or the broader community, or would seek to purchase food items on credit.

The food available to adolescent boys engaged in income-generating activities and working on the land was often not proportional to their hard physical labour. Adolescents working on palm oil plantations in Alta Verapaz, for example, were not provided with meals by their employers, and described bringing tortillas and chilli to work because they could not afford to purchase the hot lunches served by the small-scale restaurants on or near the plantation. They confirmed that they frequently bought snacks (*'it does not fill the stomach'*) or soft drinks (*'for strength'*) before they returned home at the end of the day to eat a larger meal. In contrast, the working adolescents who participated in the workshops in Chimaltenango City were often provided with lunch by their workplace, and discussed eating *fideos* and meat with adult employees. The provision of a midday meal at work was an important service as it was often the most nutritious meal that adolescents would eat in a day.

Economic migration

Across all field sites, participants from both ladino and indigenous communities confirmed that it was common for men and boys to leave their communities to seek employment opportunities elsewhere, often as a result of failed harvests. Migration was seen to influence nutrition in multiple ways. For a young male adolescent migrant, moving away from home (and his wife or other female relatives) often meant not having access to healthy home-cooked food, but resorting to purchasing food *'on the go'*. With limited resources at their disposal, boys reported that the only food they could afford was cheap and easily accessible fast food. Female relatives left at home had to manage the household budget whilst the main income generator was away. It was frequently reported that they ran out of money and had to resort to borrowing money or undertaking piecemeal work, on top of their hard housework. Although many men and boys were engaged in domestic migration to work on palm oil or banana plantations, or in the construction industry as unskilled workers, some participants reported migration to neighbouring countries including El Salvador and Honduras. Many participants dreamt of migrating to the United States in order to *'find a better life'*.

Access to education

Many adolescents discussed the importance of finishing primary school and ideally going on to secondary and tertiary education *'for the future'*, and *'so we can work with clean clothes in the city'*. Caregivers also aspired to have their children complete school, and many positioned education as a protective factor for adolescents, in terms of protecting them from a *'hard life'* and as a way of improving their life trajectories. Although the value of education was well recognised, indigenous adolescents and those residing in rural areas suggested that it was common for their age group to stop attending school so they could work in the house or on the farm. Some of the younger adolescents (aged 10-14 years) engaged in the study attended school, but most older adolescent participants (aged 15-19 years) had dropped out of school after graduating from the third grade of primary school. Many participants highlighted that to attend secondary school required money for transport (as most often, schools were not located close to their homes), school fees, books and other school materials, all of which were deterrents to attendance. With limited economic resources, caregivers often had to choose which child or children to send to school and a boy's education was usually prioritised over a girl's. It was normal and well accepted that adolescent girls, particularly older girls, would leave school to help shoulder the burden of housework.

Violence and substance abuse

In urban fieldsites, participants at all levels identified violence and substance abuse as key barriers to a safe and healthy adolescence. Adolescence was seen as a vulnerable period during which youth were susceptible to alcoholism, drug abuse and both gang-related and gender-based violence. Because of their socio-economic situation and geographical location, urban adolescents reported that they were at risk of being recruited into street gangs. Participants suggested that being part of such an organisation could result in economic prosperity (and hence the availability of more food). This, at least in the short-term, was often prioritised over risks to personal health and safety. In Chimaltenango, the largest city included in the study, gang violence was common and linked to the promise of material benefits. Substance abuse was highlighted as a factor preventing the healthy development of adolescents, particularly older boys in urban centres. Alcohol or drug use was often reported by urban boys as a way to escape their daily struggles (*'to forget'*) or as a substitute for food, *'it fills us up when we don't have food'*. Violence against women and sexual violence were also prevalent. In their workshops, girls expressed fear about *'walking alone'* and those residing in urban centres confirmed that because of this, they spent the majority of their time inside their *'colonias'* (gated communities) and at home watching *'telenovelas'* (soap operas) or on their mobile phones (discussed further below). By avoiding risk and outside violence, it was challenging for urban adolescents to participate in exercise and they often reported high levels of sedentariness.

Sexual and reproductive health

Adolescents, particularly indigenous girls, had very limited access to sexual and reproductive health information and services. According to the DHS, 52.8% of indigenous women of reproductive age use contraception, compared to 68% of non-indigenous women. Pre-marital relations between adolescents are 'taboo' in Guatemalan society. From an early age, girls are taught by their mothers that virginity is one of their most important virtues. Social perceptions about '*saving oneself for marriage*' are dominant and linked to the strong moral influence of the church, yet Guatemala has one of the highest teenage pregnancy rates in Latin America with one in five adolescents between 15-19 years having borne a child. According to the DHS, indigenous girls are younger at the time of their first pregnancy than non-indigenous girls, and 45% of all girls that fall pregnant between the ages of 15-19 years have never been to school.

Stigma about the use of contraception, particularly by unmarried adolescents, is widespread and the rate of contraceptive use remains low. In the DHS, only 9.8% of adolescent girls aged 15-19 years reported using any form of protection. Yet, adolescents in the study frequently highlighted their increasing sexual desire and the pressure of finding a suitable marriage partner. Adolescent pregnancy and early marriage were common across the research sites, and in indigenous communities, motherhood was regarded as a positive pathway for girls. Participants highlighted that not being allowed to have sexual relations was a primary driver for early marriage. Sexual and reproductive health education is not often taught in schools and information was found to be lacking, particularly in rural areas. Caregivers did not feel equipped or inclined to discuss sexual and reproductive health issues with their adolescents, and many confirmed that they repeated narratives about virginity and abstinence as promoted by the church. In discussing sexual and reproductive health, most adolescent girls suggested that they felt sufficiently mature to '*make decisions about our own lives*' but confirmed that even when girls and women were informed about reproductive health, they did not always have the agency to protect themselves. Participants reported that many of their male partners did not '*give them permission*' to use contraception. Adolescent boys indicated that they faced fewer restrictions than girls and, when they were older, were actively encouraged to find a sexual partner and eventually to marry. Having multiple sexual partners was reported to be a source of pride for older adolescent boys, part of their machismo culture, whilst girls were expected to only have one sexual partner, their husband.

Indigenous adolescent girls who were pregnant or had children confirmed that they did not necessarily have more or '*special*' food during pregnancy, and several reported that they still had to eat after the men in their household were replete. Their household tasks did not diminish during pregnancy, and particularly girls in rural areas reported continuing hard physical work until late in their third trimester. Participants suggested that it was usual for pregnant women to attend health facilities for antenatal care (ANC), a practice corroborated by the DHS that indicates 84.6% of pregnant women in rural areas and 88.7% in urban areas attend four or more ANC sessions.

Engaging adolescents

Understanding how to effectively engage adolescents is essential for assessing how nutrition-specific and nutrition-sensitive interventions can be delivered and best related to other components of the 'adolescence equation'. Throughout the study, adolescents highlighted their priorities and needs related to engagement.

'Come to us, fit around our lifestyles' – Adolescents stressed the importance of accessibility. They preferred to be '*reached*' in places they already frequented with their peers, in the afternoon or evening after they finished their work (housework or employment) or school day.

'Use our groups, don't group us' – Given their more constrained social worlds, adolescent girls stressed the importance of creating opportunities where they could meet with peers, and they wanted '*groups to be made with just us girls*'. In line with their different experiences, however, girls highlighted that girls in- and out-of-school had different social groups, as did girls who were already married and had children, compared with those who did not. Activities, including nutrition interventions, should be tailored to such groupings.

'Make it entertaining' – All adolescents reported that they wanted to be engaged in a fun manner, '*don't just preach to us, that is boring*'. They recommended the use of music, different media and sports activities as positive hooks to engage adolescents.

'Show us real experiences' – Adolescent participants across all research sites emphasised their desire to have activities for young people facilitated by youth leaders who were close to them in age and socio-economic status, and who had shared similar experiences and challenges growing up.

'Ask us, include us' – Adolescents stressed that they did not want to '*be just told*', but to understand '*the why*'. They wanted to be engaged in a participatory manner and involved in key decision-making processes so that their voices were heard and their opinions recognised.

'Speak our language' – Adolescents stressed that they were not a uniform group and that boys and girls, older and younger adolescents and those from different communities should be engaged in the most appropriate way. Younger adolescents suggested they be approached *'playfully'*, whilst older adolescents emphasised the importance of speaking their language, not only in terms of local dialects, but also to capture colloquialisms and current trends.

'Include the people around us' – Because of the important gatekeeper roles that caregivers played in their lives, adolescents emphasised that initiatives directed at their engagement should also involve their families. Girls stressed that they did not have the same decision-making power as boys and suggested that girls be supported to negotiate with their families to facilitate their participation in activities.

'With food, we need energy now...' – Adolescents reported that having energy was their priority to ensure that they could complete their daily workload. They confirmed their preference for *'fast'*, *'high energy'*, *'fashionable'* and *'filling'* foods. They were likely to source foods that gave them immediate energy and were related to their desired social identity. This focus on the present should be carefully considered in adolescent nutrition programming and to create opportunities to set new and healthy trends.

'Build us up for the future' – Participants emphasised the importance of engaging adolescents holistically, providing health and nutritional information alongside sexual and reproductive health services, vocational training and financial management. Adolescents suggested that this approach would address *'all the challenges we face in our lives'*, by giving them interrelated life and livelihood skills.

Recommendations

Strengthen the visibility of adolescents

- Nearly one quarter of the population in Guatemala are adolescents, but they are largely invisible in policy. Adolescent malnutrition is a large-scale challenge, and as a sub-population with unique nutritional needs, adolescents are being left behind. Guatemala should consider applying an adolescent lens to existing policies and programming. Focused advocacy efforts are needed to encourage key actors to commit to interventions for this group.
- At the national-level, different sectors use various definitions of adolescence, and in so doing, the needs of adolescents risk becoming diluted or falling through policy and programming gaps. Existing nutrition policies and key strategic plans rarely mention adolescents and no budget is assigned to adolescent nutrition, which results in limited programming for this group. National efforts to limit stunting have been widespread and effective. Similar attention should be afforded to adolescents as a priority target group, and synergies created with other effective programming.
- Definitions of adolescence at the national level are not consistent with definitions used at the community level. This results in some adolescents self-identifying in ways that prevent them from seeking youth-orientated services. Interventions must be sensitive to variables including age, gender, socio-economic status, life experiences / stages, livelihoods and ethnicity. Effective engagement should target groups as defined and understood at the community level.
- 'Adolescents' must not be interpreted as a homogenous or standard group. Within this age group, different life-stages occur and should be accounted for. Similarly, adolescents are subjected to a range of socio-economic and contextual factors that shape their lived realities. These sub-groups are not mutually exclusive, rather an adolescent can belong to or self-identify with multiple groups concurrently and over time. Assuming a user-centred design approach, interventions should therefore be developed in an age-, gender- and context-specific/sensitive manner.

Influencing adolescent nutrition

- When taking adolescents as the central unit of analysis, it becomes clear that in Guatemala this group is uniquely affected across the 'triple burden' (the existence of underweight, overweight and micronutrient deficiencies in the same population). Adolescence provides a 'second window' to improve the nutrition and health of the population through promoting optimal development and preventing diet-related chronic diseases in adulthood.
- Programmes targeting adolescents must take account of the nutritional challenges faced in different contextual settings, and the impact this has on their overall growth, development and well-being. Complex and poor dietary habits are the underlying problem for both undernutrition and over nutrition.
- Increasing communication and information about nutrition alone will not improve the diet or health-related behaviour of adolescents. Rather, interventions should adopt a systems-based approach that addresses the

nutritional needs of adolescents in the context of and in combination with other key components of their lives. Communication and information should be combined with improved access to healthy food and other services.

- Reducing poverty by increasing safe income-generation opportunities that would raise household economic status is key, but such opportunities should be designed to encourage school attendance for adolescents. For adolescents who are older or do not attend school, vocational training that develops business skills and provides resources such as start-up equipment, is an important avenue of constructive engagement.
- In addressing agricultural practices for adolescents and their households, an agri-nutrition lens should be adopted. Knowledge, skills and resources should be developed for effective and efficient irrigation systems and post-harvest storage, and consideration given to issues of land access. New and emerging urban-agricultural methodologies (e.g. sack-gardens) may be particularly relevant and appealing for adolescents residing in urban and peri-urban localities.
- Addressing adolescent nutrition requires a systems-based approach that considers restrictive social norms, sexual and reproductive health issues including early marriage and teenage pregnancy, and access to education. These are critical components related to improving nutritional status and wellbeing.

Engaging with adolescents

- As target beneficiaries, adolescents should be engaged as active participants in the design, implementation and monitoring of interventions. Programmes should be sensitive to the needs, preferences and priorities of adolescents. During the research, they clearly articulated suggestions that should be operationalised including ease of access, the strategic use of language, and showcasing real experiences. They emphasised the importance of privacy, trust, transparency and equity in all engagements. They wanted interventions to develop their skills for the future, but to be dynamic and entertaining, using music, dance and sport.
- Although it risks perpetuating unequal social norms, adolescents emphasised that they wanted to be engaged in gender-specific groupings and in places where they already meet. Adolescent boys meet their peers in the community after work or school, particularly to play football or other sports. Rural indigenous boys also reported meeting friends at local shops to watch television (usually football or films). Adolescent girls met each other in the community whilst undertaking household chores, such as looking for firewood or washing clothes. Many older indigenous adolescent girls reported that since leaving school, their friendship group had reduced, and they only had limited time to meet others outside their household or immediate community, emphasising again that due to their restricted movement, interventions had to engage with them in *'their space'*.
- Several key influencers in the lives of adolescents were identified including caregivers and parents, particularly mothers (for younger adolescents); husbands and mothers-in-law (for married adolescents); peers (for older adolescent boys); teachers (for those in-school); religious leaders (for older adolescent girls); and community leaders (for adolescent girls and boys of different ages). Securing their buy-in and support is vital in both generating demand and facilitating utilisation of programmes and services.
- Adolescents can be agents of change for family members and their broader communities. In addition to receiving information about nutrition and nutrition-related services for their own wellbeing, adolescents should be considered primary targets for cascading knowledge and improving the nutrition of their younger siblings and other vulnerable groups (e.g. children under five, pregnant women).
- There is need to support trusted adolescents to assume positions of leadership to represent the voice(s) of their peer group(s), to ensure appropriate user-centred design, and to provide monitoring and evaluation feedback to ensure programmes are appropriate, relevant and effective.

Platforms for engagement

- Considering the dynamic needs of adolescents, there is no 'one size fits all' delivery channel. Interventions should respond to the complex realities of an adolescent's life and rather than being an additional burden, should be mindful of the conflicting responsibilities they may have. Adolescents should be engaged through multiple avenues or platforms that are mutually supportive.
- The formative research and stakeholder mapping documented existing programmes that engaged adolescents and implemented activities related to nutrition; sexual and reproductive health; economic empowerment and livelihood support; education; social protection; and leadership related to youth participation. There was a particular bias towards girls and sexual reproductive health programming. Overall, however, programmes were not implemented at scale and coverage was therefore limited. Only a few programmes were designed with adolescents as the primary beneficiaries, but multiple programmes 'accidentally' included adolescents (such as health interventions for pregnant women, and livelihood support programmes for farmers).

- Various platforms engaged adolescents at the community level. Religious institutions played a significant role in the lives of all adolescents who participated in the study. Church is easily accessible and socially acceptable, particularly in rural areas where limited activities for adolescents are available. It is challenging, however, for religious institutions to actively tackle sexual and reproductive health and family-planning related issues, and this limits the potential impact of the church as a delivery channel. For those in formal education, particularly younger adolescents and boys, school was identified as a positive and trusted platform for engagement, although it was noted to be a selective channel given that not all adolescents (particularly older adolescents and girls) attended. Girls who had attended ANC services discussed health facilities (specifically rural health posts) as providing health- and nutrition-related advice. Other adolescents, including boys and younger girls, perceived health centres to be for curative treatment, and perceptions around contraceptives and the negative implications of pre-marital sexual relations restricted the use of health services by many.
- Technology platforms are a promising way to engage adolescents, yet the research provided further evidence that the penetration and use of technology is highly context-specific and differs according to social groups, age and gender. Girls in urban areas were more likely to use social media and watch television given their restricted mobility due to safety concerns. These girls reported using applications including Facebook and WhatsApp to chat with each other. Girls' internet usage was closely monitored by their caregivers, although a few girls had 'secret' mobile phones to communicate with friends and boyfriends. Radio was more widely accessible for all adolescents in both urban and rural areas. Where adolescents did not have personal access to the radio through their mobile phone or own radio, they reported listening to radio programmes their parents selected. This could potentially limit the programmes they have access to, particularly those that discussed more sensitive issues such as contraceptive use or other sexual and reproductive health related themes. Television was the preferred mode of entertainment in urban areas and was increasingly popular and accessible in rural areas. Younger boys also reported playing video games in internet cafes.

Entry points for strategic partnerships

- Policy and programming entry points need to be strengthened and expanded. Currently, programming is selective and localised. Further investment in both nutrition-specific and nutrition-sensitive adolescent programming is needed if the most vulnerable girls and boys are to be reached.
- Most organisations that engage adolescents in Guatemala focus on providing sexual and reproductive health services for older adolescents. These existing programmes may provide a valuable opportunity for engaging adolescents on other issues, including nutrition for themselves and their families.
- Many adolescents are included in activities that are orientated towards adults. In acknowledging this, programmes should be aware of the special needs of adolescents of different ages and encouraged to modify their services appropriately. Services aimed at women of reproductive age should purposefully try to reach all adolescents, and services aimed at pregnant women should ensure that pregnant adolescents are effectively included.
- Actors already active in the nutrition sector should be encouraged to further tailor their interventions to better reach adolescents. Their programming should recognise this specific target group and their unique needs, engage adolescents in appropriate ways and use approaches to which they are receptive. Investment in such channels should be prioritised to help mainstream adolescent nutrition programming. Existing communication strategies used by the Ministry of Health and Social Assistance, the Ministry of Culture and Sports and others could be strengthened to include age and gender-sensitive information targeting adolescents and adolescent nutrition issues.
- Coordination between government, partners and programme implementers should be improved to support an enabling environment for adolescent engagement. SESAN has an important role to play given their remit to coordinate, integrate and monitor food and nutrition security interventions among the public and private sectors, society and national and international agencies.
- The food industry should be positively engaged to ensure low-cost and healthy food is produced and sold, and to influence market trends towards the recognition and consumption of food that is healthy and has a high nutrient value. The Scaling Up Nutrition (SUN) business network could be strengthened to serve as an effective entry point to develop strategic partnerships with the private sector.

Summary of key policy and programme implications

Theme	Key considerations
Food consumption trends	<ul style="list-style-type: none"> • Make diverse, healthy, natural and affordable foods available and attractive to adolescents and their families, particularly in times of scarcity. Promoting healthier foods in small shops (particularly those located close to schools and workplaces) would increase their availability to adolescents who should be encouraged to choose healthier food over other options. • Curb the promotion and availability of unhealthy foods to adolescents and their families.
Food knowledge & classifications	<ul style="list-style-type: none"> • Existing food classification systems and traditions do not necessary prioritise or promote adolescent-specific nutritional needs but can be entry points in designing context-specific nutrition and health information communication strategies and activities. • Marketing and food advertisement campaigns can spread ‘rumours’ around the benefits of consuming certain types of food, e.g., the benefit of using energy drinks for strength. These types of promotions should be discussed in health promotion activities or restricted. • Knowledge of healthy food does not directly translate to healthy food practices, so investment should be made to ensure adolescents assume healthy diets and consumption patterns. This is linked to making healthy food not only available and accessible, but also aspirational and attractive. The promotion of healthy foods should focus on components adolescents value in terms of choice and consumption, primarily that they are energy-giving, filling, tasty and socially desirable. Healthy food choices could be promoted through engaging mass media such as <i>telenovelas</i> (soap operas), or social media.
Household food allocation	<ul style="list-style-type: none"> • The lack of household resources in times of scarcity linked to drought, floods and failed harvests means that adolescents are at risk of missing out on healthy nutrition during the critical years of adolescence. Policies invoking the activation of social safety nets and food assistance should be strongly linked to scarcity, and should purposively consider adolescent issues and constraints. • Adolescents and their caregivers must be better informed about the most cost-effective healthy foods available to them. • Ingrained gender norms related to food allocation within the household prevent girls’ healthy nutrition. Raising awareness about the importance of an adolescent girl’s nutrition should focus on her strength and role in the (household) economy (in terms of immediate value) and on the importance of her health for the next generation (future value). • Engaging with key male and adult influencers is critical. • Raising awareness around good nutrition during pregnancy also needs to be discussed in these forums. Cheap, safe and healthy snack foods should be made available for pregnant adolescents, and consideration given to snacks in terms of their value as food and micronutrient supplements.
Income-generation	<ul style="list-style-type: none"> • Poverty is widespread, particularly amongst indigenous populations, and is exacerbated by climate change induced vulnerabilities and landownership struggles. Given this, income-generating activities are often prioritised over school attendance. Adolescents and their families therefore need strong incentives for this age group to continue formal education. • Some adolescents eat lunch, regarded as the most important meal of the day, at their workplace and many eat snacks to substitute lunch if they cannot afford to purchase it. Engaging with workplaces provides a valuable opportunity that programmes aimed at increasing adolescent nutrition should carefully explore and manage. • Healthy food is often more expensive, or at least is perceived to be, so it may be may useful to explore reducing costs associated with healthy unprocessed products whilst simultaneously decreasing access to non-nutritious, unhealthy foods.
Education	<ul style="list-style-type: none"> • The value of adolescent education should be promoted through community-based role models and linked to attractive incentive structures for adolescents and their wider family unit. To help facilitate school attendance, it is important to explore ways to reduce income-generation activities of both boys and girls, and the housework / household responsibilities of girls.
Violence & substance abuse	<ul style="list-style-type: none"> • Whilst it is important to invest in longer-term solutions to security issues, in the short- to medium-term girls in unsafe urban centres must be reached where they are and not left behind due to their constrained environment. • Investment should be made in sport and recreational activities for adolescent girls and boys. Whilst this would help overcome the sedentary nature of adolescents in insecure urban centres, it would also provide them with a safe platform to meet peers, form social relationships and develop a healthy body and mind. Engaging boys through sport activities would help promote the importance of health and nutrition for strength and physique as a positive alternative to alcohol and substance abuse.
Sexual & reproductive health	<ul style="list-style-type: none"> • Reducing adolescent pregnancy is key in ensuring the healthy development of adolescent girls and is linked with poverty reduction and education promotion efforts that have been proven to have a positive impact on adolescent nutrition and broader well-being. • Health facility services should actively try to reach adolescents and sustain engagement. Services should be carefully designed to ensure this age group perceives them to be relevant. Normalising health facility visits for preventative care is important and should aim to shift association away from sexual and reproductive health issues. In parallel, the provision of quality care for adolescents must be further strengthened.

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Acronyms and abbreviations

3iE	International Initiative for Impact Evaluation
ANC	Ante Natal Care
APROFAM	<i>Asociación Pro Familia</i> (Family Welfare Committee)
BMI	Body Mass Index
CMI	<i>Centro de Medios Independientes</i> (Centrum for Independent Media)
COCODE	<i>Consejos Comunitarios de Desarrollo Urbano y Rural</i> (Community Council for Rural and Urban Development)
CODESAN	<i>Comisión Departamental de Seguridad Alimentaria Nutricional</i> (Departmental Commission for Food Security)
COMUSAN	<i>Comisión Municipal de Seguridad Alimentaria y Nutricional del Municipio de Guatemala</i> (Municipal Commissions of Food and Nutritional Security)
CONADUR	<i>Consejo Nacional de Desarrollo Urbano y Rural</i> (National Council for Urban and Rural Development)
CONAPREVI	Coordinadora Nacional para la Prevención de la Violencia Intrafamiliar y Contra las Mujeres (National Coordinator for the Prevention of Domestic Violence)
CONALFA	<i>Comité Nacional de Alfabetización</i> (National Committee for Alphabetisation)
CONJUVE	<i>Consejo Nacional de Juventud</i> (National Youth Council)
CSJ	<i>Corte Suprema de Justicia</i> (Supreme Court of Justice)
DEMI	<i>Defensoría de la Mujer Indígena</i> (Office for the Defence of Indigenous Women)
DHS	Demographic and Health Survey
ENCOVI	<i>Encuesta Nacional de Condiciones de Vida</i> (Guatemala Living Standards Survey)
ENPDC	<i>Estrategia Nacional para la Prevención de la Desnutrición Crónica 2016-2020</i> (National Strategy for the Prevention of Chronic Malnutrition 2016-2020)
ENSMI	<i>Encuesta Nacional de Salud Materno Infantil</i> (National Survey on Maternal and Infant Health)
FAO	Food and Agriculture Organisation
FDG	Focus Group Discussion
FEWSNET	Famine Early Warning Systems Network
GAIN	Global Alliance for Improved Nutrition
GDP	Gross Domestic Product
GREGUA	<i>Gremial de Restaurantes</i> (Guatemala Restaurant Council)
ICF	<i>Instituto de Ciencias de la Familia</i> (Institute for Family Studies)
IDS	Institute of Development Studies
IFAD	International Fund for Agricultural Development
IGER	<i>Instituto Guatemalteco de Educación Radifónica</i> (Guatemalan Institute for Radiophone Education)
INCAP	<i>Instituto de Nutrición de Centro América y Panamá</i> (Institute of Nutrition of Central America and Panama)

INE	<i>El Instituto Nacional de Estadística</i> (National Statistics Institute)
INGO	International Non-Governmental Organisation
MAGA	<i>Ministerio de Agricultura Ganadería y Alimentación</i> (Ministry of Agriculture, Livestock and Food)
MARN	<i>Ministerio de Ambiente y Recursos Naturales</i> (Ministry of Environment and Natural Resources)
MCD	<i>Ministerio de Cultura y Deportes</i> (Ministry of Culture and Sport)
MIDES	<i>Ministerio de Desarrollo Social</i> (Ministry of Social Development)
MINEDUC	<i>Ministerio de Educación de Guatemala</i> (Ministry of Education)
MSPAS	<i>Ministerio de Salud Pública y Asistencia Social</i> (Ministry of Health and Social Assistance)
MUNIGUATE	<i>Municipalidad de Guatemala</i> (Municipality of Guatemala)
NGO	Non-Governmental Organisation
OMS	<i>Organización Mundial de la Salud</i> (World Health Organization)
OPS	<i>Organización Panamericana de la Salud</i> (Pan American Health Organisation)
PAHO	Pan American Health Organisation
SBS	Secretaría de Bienestar Social (Social Welfare Secretariat)
SDGs	Sustainable Development Goals
SEGEPLAN	<i>Secretaría de Planificación y Programación</i> (Secretariat for Planning and Programming of the Presidency)
SEM	Social Ecological Model
SEPREM	<i>La Secretaría Presidencial de la Mujer</i> (Presidential Secretariat for Women)
SESAN	<i>Secretaría de Seguridad Alimentaria y Nutricional de la Presidencia de la República</i> (Secretariat for Food and Nutritional Security)
SOSEP	<i>La Secretaría de Obras Sociales de la Esposa del Presidente</i> (First Lady's Social Work Secretariat)
SRH	Sexual and Reproductive Health
SUN	Scaling Up Nutrition
UGAM	<i>Unidades de Gestión Ambiental Municipal</i> (Municipal Environmental Management Unit)
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Fund
UNWOMEN	United Nations Entity for Gender Equality and the Empowerment of Women
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

Introduction

Background

Adolescence is a time of significant brain development (Blum et al., 2014) and physical growth at a pace exceeded only by the critical first 1000 days (Thurnham, 2013). As identified in Sustainable Development Goal 2, Zero Hunger, addressing the nutritional needs of adolescent girls is one of the key steps towards achieving the objective of ending malnutrition by 2030. The 2013 'Maternal and Child Nutrition Series' published by *The Lancet*, the Vision 2030 Sustainable Development Goal agenda, and the Scaling Up Nutrition (SUN) movement have each played a key role in highlighting that adolescent nutrition interventions should be tailored to girls. Interventions to improve access to education, delay marriage, and prevent early pregnancies can contribute to improving adolescent girls' nutrition so they can reach their full potential (Horton, 2013; SUN, 2016; Thurnham, 2013; Black et al., 2013; Finlay et al., 2013a; Finlay et al., 2013b). There is, however, a lack of evidence to guide the development and delivery of strategic nutritional messages and interventions for this specific target group. More research is needed on the nutritional status of adolescents globally (Leenstra et al., 2005; Patton et al., 2016).

In line with the global shift of attention towards adolescents, there is increased engagement and mobilisation of multi-sectoral actors around the adolescent agenda in Guatemala. According to the country's most recent Demographic Health Survey (DHS) (data from 2014-2015), 24% of the population in Guatemala is 10-19 years old (MSPAS, INE, ICF International, 2017). The *Plan Nacional de Desarrollo K'atun Nuestra Guatemala 2032* (National Development Policy Ka'tun 2032) spearheaded by the Office of the President, advocates for the active participation of adolescents in the social and economic life of the country (CONADUR/SEGEPLAN, 2014). The policy highlights the importance of education, employment opportunities and sexual health services tailored to the needs of adolescents. The plan also notes the need to address malnutrition nationally by engaging mothers and children aged under five years.

Guatemala suffers from the 'triple burden' of malnutrition, with high rates of stunting, micronutrient deficiency and obesity in both indigenous and non-indigenous populations. Despite a number of long-standing national food fortification programmes, micronutrient deficiencies remain an issue, particularly among low-income populations (Iannotti et al., 2012).¹ The country has the fifth highest prevalence of stunting amongst children under five in the world, and the highest in Latin America. At the same time, a combination of unhealthy diet and lack of exercise (with only 50% of the population reporting to be physically active) is a key health risk for all age groups. The leading causes of death and mortality for the general population are related to nutrition, including heart attacks, stroke and cardiac insufficiency (41%), cirrhosis and malignant neoplasms (14%). Diabetes is also prevalent (PAHO, 2014). Guatemala is increasingly affected by a prevalence of overweight and obesity among women of reproductive age, and in 2014, 50% of the population was reported to be either overweight or obese (Ramirez-Zea et al., 2014). The upward obesity trend is also apparent in younger populations. Diets include increasing levels of calorie-dense, nutrient-poor and higher fat foods (Nagata et al., 2011). The dietary transition is significant in both indigenous and non-indigenous populations (Bermúdez et al., 2010; Asfaw, 2011) and the negative effects of the 'Coca-colonisation' of Guatemala has been frequently reported.²

Although nutrition data specific to adolescents is scarce, data collected on women of reproductive age (15-49 years) in the DHS illustrate the health challenges faced: 24% of all women and 37% of indigenous women in that age group are less than 145 cm in height, which is correlated with undernutrition in early life. In addition, 52% of women aged 15-49 years have a body mass index (BMI) above 25, indicating overweight/obesity, and 15% suffer from anaemia. It was reported that 24% of all pregnant women and

¹ Guatemala began fortifying salt with iodine in 1954 and sugar with Vitamin A in 1975. Although these programmes were suspended in 1979, they resumed in 1988 and continue today. The government also has programmes to fortify wheat flour with iron and folate (Fiedler and Helleranta 2010).

² The term refers to the globalisation of American culture, brands and products, primarily Coca Cola (Pendergrast, 2000).

32% of all infants between 6-59 months old are anaemic (MSPAS, INE, ICF International, 2017). Micronutrient deficiencies (zinc, folate and vitamin B12) remain widespread (Ramirez-Zea et al., 2014). The Fill the Nutrient Gap study conducted in Guatemala in 2016 demonstrated that given current food consumption patterns it is highly likely that many adolescent girls across the country are consuming nutritionally inadequate diets and are deficient in key micronutrients (WFP, in publication).

Nutritional status impacts an individual's ability to learn, to work, to reproduce and to fight diseases. Therefore, interventions targeting nutrition are likely to affect not only the individual but also societal development, educational quality, workforce skills and productivity, economy and quality of life (Ohlhorst, et. al., 2013). Guatemala does not have a specific policy for adolescent nutrition, and adolescents are only rarely mentioned in national nutrition policies. In the *Estrategia Nacional para la Prevencion de la Desnutricion Cronica 2016-2020* (ENPDC) (National Strategy for the Prevention of Chronic Malnutrition 2016-2020), the *Secretaría de Seguridad Alimentaria y Nutricional de la Presidencia de la República* (Secretariat of Food and Nutritional Security, SESAN) highlighted the elevated risk profile for overweight and obesity in adolescence. Building on the ENPDC, the Ministry of Health and Social Assistance (MSPAS) is developing a new National Strategy for the Prevention of Overweight and Obesity in Children and Adolescents, due to be published in 2018.

In 2014 it was estimated that 59% of the Guatemalan population lived on less than USD 1.90 per day, and 23% lived in extreme poverty (INE, 2014a). Of the indigenous population, 79% live in poverty, while 40% live in extreme poverty (INE, 2014a). Agriculture plays an important role in the national economy, accounting for more than 20% of GDP and employing over 40% of the country's labour force (Berdegue and Fuenteabla, 2011). It contributes 23% to Guatemala's GDP, making up 75% of export earnings, and employs 50% of the labour force (FAO, 2014). The principal cash crops in the country are coffee, sugar, bananas, and cotton, followed by hemp, essential oils, and cacao (FAO, 2014).

Research objectives

This research is part of a four-country study that aimed to contribute to the global evidence base for adolescent nutrition. The other three countries included in the study were Cambodia, Kenya and Uganda. The research had four overall objectives:

- To assess the experiences, needs and priorities of adolescents regarding their nutrition.
- To understand the policy and programmatic environment and current practices for effectively engaging adolescents.
- To establish the preferences of adolescents regarding how they want to be engaged in programming.
- To establish user-centred recommendations for more adolescent-friendly, context-specific nutrition interventions.

Research outputs

The research produced several interrelated outputs:

- Substantive country-specific report based on newly gathered empirical data.
- Concise report summarising key findings.
- Detailed country-specific spreadsheet of stakeholders engaged in adolescent programming and inventory of delivery channels and engagement mechanisms.
- Four-country literature review.
- Cross-country synthesis highlighting key learning across Cambodia, Guatemala, Kenya and Uganda.

Report structure

This report details the research conducted in Guatemala. Prior to its finalisation, WFP were invited to provide feedback that was then incorporated as appropriate. The report is structured to be of operational use to WFP and partners, and presents valuable new data that contributes to the evidence base on engaging adolescents for nutrition, health and sustainable development.

Following the introduction, the study's methods are outlined in detail including the contextual details of the study sites. The research findings are then presented in four chapters. Chapter 1 focuses on defining and experiencing adolescence including definitions at the national level and also community-level markers. Chapter 2 addresses food and nutrition, describing food consumption trends, household food responsibilities and allocation, and food classification. Chapter 3 explores interrelated factors affecting adolescent nutrition: farming, land ownership and climate change; income generation; economic migration; access to education; violence and subsistence abuse; and sexual and reproductive health. Chapter 4 discusses the engagement of adolescents. It identifies their key influencers and reports on the communication and media landscape. It summarises existing adolescent programming and highlights adolescents' preferences about how they should be engaged. The conclusion presents a series of recommendations to strengthen the visibility of adolescents; influence adolescent nutrition; engage adolescents; build on platforms for engagement; and develop entry points for strategic partnerships.



Boy in Cerro Azul, Alta Verpaz, watching over his mother's shop.

Methodology

The research was conducted in line with prevailing ethical principles to protect the rights and welfare of all participants. Permission to undertake the research was granted by the ethical committee of the Social Science Faculty at the University of Valle University (see Annex 1) and supported by the WFP Country Office in Guatemala City, Guatemala. The research was conducted in three interrelated phases: document review; stakeholder mapping; and formative research (an overview of the research team is presented in Annex 2).

Phase 1 – Document review

Undertaken at the start of the consultation process, the rapid desk review provided a solid foundation for the work. It sourced material published in peer-reviewed journals and grey literature including programmatic documents, country reports and national demographic surveys. The complete literature review was submitted as a standalone report, *'Adolescent girls nutrition in Cambodia, Kenya, Guatemala and Uganda: a review of selected literature'*. The full texts of all referenced material were collated and submitted as part of the research portfolio.

Phase 2 – Stakeholder mapping

Stakeholder engagement was initiated in April 2017. Building on preliminary meetings with key I/NGO stakeholders, the core research team facilitated a workshop to provide an overview of the stakeholder mapping, secure partner engagement, consult on possible formative research site selection, and identify additional stakeholders using a snowball technique. Through the consultation process 40 key stakeholder organisations were interviewed and their programmes included in the mapping exercise between April and September 2017 (see Annex 3).

Information on each stakeholder organisation was collated and tabulated in an Excel spreadsheet (submitted as part of the research portfolio). In addition to contact information, the mapping categorised the focus, timeframe and location of interventions, the target group (age, ethnicity, gender), the modes of engagement; key research studies produced (if any); and areas of interest (e.g. requests for additional information on relevant topics where data is lacking). From this, both gaps and future opportunities for cross-sector programming were highlighted, specifically opportunities for effective nutrition and nutrition-sensitive interventions.

The WFP national research consultant undertook a situational analysis of adolescent nutrition and reviewed relevant demographics, pregnancy statistics, education statistics, employment levels, current dietary practices and trends, and nutritional issues. It also identified entry points for advocacy and programming. The report, *'Guatemala Situational Analysis on Adolescent Nutrition Policy and Programming'* was submitted as part of the research portfolio, and key findings integrated into both the literature review and the substantive country report as appropriate.

Phase 3 – Formative research

After an interim period during which ethics clearance to conduct primary data collection was secured, the formative research phase of the study was conducted in June and July 2017, including 20 days intensive in-country fieldwork (see Annex 4 for the fieldwork schedule).

Fieldwork support

Implementing partners were engaged in each department to help facilitate the community-level engagement critical for the fieldwork component of the study. They were responsible for introducing the project to the Community Councils for Urban and Rural Development (COCODES, *Consejos Comunitarios de Desarrollo Urbano y Rural*) and community leaders then liaised with their constituency to recruit participants for the study.³ In Alta Verapaz the Population Council's *Abriendo Oportunidades* programme and the affiliated network of *Mentoras de Chisec* supported the fieldwork. *Abriendo Oportunidades* aims to improve Mayan girls' social support networks by connecting them with role models and mentors, building a base of critical life and leadership skills, and providing hands-on professional training and experience. *Mentoras de Chisec* is a group of young indigenous women based in Chisec, Alta Verapaz who previously facilitated the programme with adolescent girls (many were beneficiaries of the programme themselves). In Chimaltenango, staff from *Mi Especial Tesoro* programme and from *Comité Nacional de Alfabetización* (CONALFA, National Committee for Alphabetisation) facilitated the research. *Mi Especial Tesoro* is a Christian charity that aims to support alternative options for girls at risk of entering prostitution due to extreme poverty. The organisation provides protection, education and health care services and runs an orphanage that houses sixteen girls who have been sexually abused or neglected. The organisation is financed through donations from congregations outside Guatemala, mainly from the United States. CONALFA offers literacy classes to adults in Chimaltenango City. The programme aims to increase the literacy amongst people who never had the opportunity to attend school. Field monitors from the Secretariat of Food and Nutritional Security (SESAN, *La Secretaría de Seguridad Alimentaria y Nutricional de la Presidencia de la República*) also supported the research in Chimaltenango.

Study sites

The research sites were selected in consultation with FAO, UNFPA, UNICEF and WFP during the initial stakeholder engagement meeting in Guatemala in April 2017, and in line with data from the latest Demographic and Health Survey (2017) and the National Survey on Maternal and Infant Health (ENSMI 2014-2015). The selection was approved by representatives of the Ministry of Health and Social Assistance, SESAN and CONJUVE during a second stakeholder meeting held by WFP. Specific field sites were agreed by SESAN and the COCODE in each of the relevant areas. In each area, WFP organised a stakeholder engagement meeting with representatives from the local government ('*alcaldes municipales*'). In Chimaltenango the Departmental Commission for Food Security (CODESAN, *Consejo Departamental de Seguridad Alimentaria*) and the Municipal Commission for Food Security (COMUSAN, *Consejo Municipal de Seguridad Alimentaria*) were also consulted during the planning process. In considering different sites, a number of a number of key criteria were considered:

- Are both urban and rural locations selected?
- In each location, is there a diversity of population (e.g. in urban areas, does the population include the urban poor, and in rural areas does the population include ethnic minorities and different livelihoods; are different religions represented)?
- In each location, is there an established local partner providing outreach or interventions for adolescents? Are they willing/able to help facilitate the research?
- What are their mechanisms / delivery channels for engaging adolescents (e.g. youth clubs, community outreach) and can these be used to help identify and recruit participants?
- Do they include adolescents of different age ranges in their programming (e.g. 10-14 year olds, 15-19 year olds)?

³ *Consejos Comunitarios de Desarrollo* (COCODE) is the Community Development Council. The COCODE is a community-based decision-making body with representatives from the municipality, elected community members and other stakeholders. The council represents the interests of the community and is tasked with managing finances of community-based projects (described in Article 4 of the Urban and Rural Development Councils Act).

The core fieldwork was conducted in two departments: Alta Verapaz and Chimaltenango. In each, two specific field sites were chosen, one urban and rural. In Alta Verapaz, fieldwork was conducted in Cerro Azul (rural) and Chisec (urban); and in Chimaltenango, in Xzetzizi (rural) and Chimaltenango City (urban). The field sites provided opportunities to engage with both indigenous and non-indigenous populations. Whilst each site had its own specificities, they also had a number of comparable characteristics, including high rates of poverty, climate change related vulnerabilities, land ownership struggles, food insecurity and economic migration.

The department of Alta Verapaz was selected given the high rates of poverty, malnutrition and illiteracy; limited access to communication methods and services; and because of limited information about adolescents living in the department. Alta Verapaz was also included because of the high percentage of indigenous populations living in the department; the relative distance of the department from the capital city (around 7 hours by car); and the presence of the comprehensive Abriendo Oportunidades programme for adolescent girls (although at the time of data collection programme activities had ceased). Chisec, the capital city of the municipality of Chisec, is a busy commercial city in the north of Alta Verapaz. The indigenous Q'eqchi' population who live in the city are often impoverished, have limited economic generation opportunities and are frequently caught in landownership struggles. In contrast, Cerro Azul is a remote rural Q'eqchi' community, with few services available to the population. There is no functional phone network, no health post and only one small under-resourced school. The community is completely dependent on agriculture and economic migration.

In Chimaltenango, department data reports more positive socio-economic indicators, higher levels of literacy and greater access to a wider range of communication methods (MSPAS, INE, ICF International, 2017). The department is one-hour drive by car from Guatemala City resulting in the department having more commercial and income generation opportunities than Alta Verapaz. Chimaltenango also has a more mixed ethnic population (both indigenous and ladino), and is a key programmatic area for WFP. Chimaltenango City, the capital city of the department, was selected as a field site. It is a known refuge for gang leaders from the criminal organisation 'Mara Salvatruchas' and drug and crime rates are elevated (La Vanguardia, October 2017). High rates of malnutrition are also reported, and many economic migrants leave the city for the United States and neighbouring countries. The second field site in Chimaltenango department was the rural village of Xzetzizi in Patzún. There, the indigenous Kaqchikel community faces challenges with drought, and are dependent on cash crop farming and remittances from economic migrants residing in the United States.

WFP Guatemala was also keen to include an area that fell under their emergency response programming, in the *Corridor Seco* or 'Dry Corridor' (an area running through Central America from Guatemala in the North to Panama in the South, drawn up to indicate the occurrence of severe drought and el Niño). Marasxco, Chiquimula, was therefore included as a case study site. It was agreed that whilst not all data collection activities could be implemented in Marasxco due to time and resource limitations, in-depth interviews could be conducted with families and adolescents during household visits. In Marasxco, the predominantly ladino population and Chorti indigenous community experience vulnerabilities due to climate change. The community is dependent on farming and other opportunities for economic generation are limited. During the data collection period, the community was under further stress due to the dysfunctional communal water system.

A map of the field sites and further details can be found in Annex 5. Table 1 (below) presents the key geographical, education and health characteristics of the field sites.

Table 1: Key geographic, education, and health characteristics of the field sites

	Primary school attendance (%)		Secondary school attendance (%)		Early childhood mortality per 1000 births		Under-five nutritional status (% below -2 SD)		Women's nutritional status (15-49 yrs)		Double burden of malnutrition
	Male	Female	Male	Female	Neonatal mortality	Under five mortality	Stunting	Underweight	Under 145cm	BMI <18.5	
Chimaltenango	91.2	87.5	43.3	40.8	18	20	56.9	0.6	37.2	0.9	37 (32/41)
Alta Verapaz	90.9	89.3	39.6	25.0	23	5	36.8	1.4	33.1	1.5	28 (24/32)
Chiquimula	91.5	87.0	36.4	36.4	28	23	45.2	1.1	23.3	2.6	15 (10/19)

Data sourced from MSPAS, INE, ICF International, 2017; Ramirez-Zea et.al. 2014.

Data collection

Data was gathered through a combination of the following methods:

- Desk review of data and literature
- In-depth interviews with key informants and stakeholders
- Focus group discussions with key informants and stakeholders
- Participatory workshops with adolescents
- Technology survey with adolescents and youth
- Feedback workshop with WFP and key stakeholders engaged during the mapping

Tool development: Based upon a rapid review of literature and programme documentation, a topic guide was developed around key themes: defining adolescence; I/NGO and governmental policy and programming; health (general) and sexual and reproductive health issues; food and nutrition; education; child rearing and adolescent influencers; messaging; research needs and document requests; IT/telecommunication context; and corporate responsibility (see Annex 6). This formed the basis for the design of a series of research tools: semi-structured in-depth interview and focus group discussion frameworks per stakeholder group; participatory workshop frameworks and guidelines; and a survey on youth communication and technology channels. The key themes were addressed in each interview, focus group discussion and workshop thereby allowing the analysis of themes across participant groups and field sites. Specific questions and probes were reviewed and refined during the study. The research was designed to facilitate input from multiple stakeholders using a phased approach, so that issues raised by one group of interlocutors could be discussed with other groups of stakeholders as appropriate. This

ensured the collation of in-depth material and the rigour of its validation and triangulation. WFP had oversight of the tools prior to their finalisation and implementation.

Key informant interviews: Key informant interviews were held with a range of stakeholders at national, departmental, district and community levels. Interview questions were reviewed and refined during fieldwork in response to themes arising during the course of interviews conducted. The direction and content of each interview was determined by the interviewee and focused on issues they self-prioritised, although all components of the topic guide were covered to ensure thematic comparison. All interviews were conducted with as much privacy as possible, after full consent had been given and in the presence of the research team only. Each interview lasted for approximately 90 minutes.

Focus group discussions: Focus group discussions (FGDs) were held with selected stakeholders at the community level. As with the key informant interviews, the group discussions were structured by the prepared framework, but allowed for flexibility and the co-production of knowledge. In many cases, although not always, caregivers who participated in the FGDs were the mothers / fathers or grandmothers / fathers of girls attending the adolescent workshops. FGDs with community leaders and caregivers were held in communal meetings spaces (e.g. community halls, class rooms), again after full consent had been given and in the presence of the research team only. Each discussion lasted for approximately 2.5 hours.

Adolescent workshops: Participatory workshops were held with adolescent girls and boys aged 10-14 years and 15-19 years. Specific participatory methods were employed to ensure the meaningful engagement and integration of this group into the research and each session used appropriate terminology, language and creative methods in line with ethical good practices and within the scope of the Convention on the Rights of the Child. Methods used included graffiti walls (to depict perceptions of community life and daily activities); drawings (to depict perceptions of adolescence and nutrition) and a modified photovoice exercise using Polaroid cameras. Photovoice is a participatory photography and data analysis methodology used in community-based research to document and reflect local realities (Wang and Burris 1994). Cognisant of the different competencies of children and adolescents (James et al., 1998; Johnson, 2011) older adolescent girls (15-19 years old) undertook a 'photowalk' during their creative workshop to document and reflect their communities, daily practices, local food sources and dietary behaviours. Adolescent workshops were held in communal meeting spaces after full assent and consent had been given, and in the presence of the research team only. Each workshop lasted for between two and four hours.

Technology survey: After pilot testing the technology survey in Cerro Azul, Alta Verapaz, the research team updated the tool so it was appropriate for the field context. Individual technology surveys were administered to male and female adolescents and youth aged 10 to 25 years old. Survey questions were asked systematically in a step-wise manner on topics related to radio, television, mobile phone, internet use, and social media engagement and behaviour. If one set of questions did not apply to the participant (e.g. they did not listen to the radio), the enumerator moved to the next set of questions until the survey was complete. The survey also included a final set of questions on other (non-technological) forms of communication. The technology surveys took 15-60 minutes to complete, depending on how many question blocks it was appropriate for a participant to answer.

As a token of appreciation, all interviewees, and FGD and workshop participants were provided with WFP approved refreshment consisting of *Incaparina*, multi-grain biscuits and an apple.⁴ Because the workshops were of longer duration and directly engaged adolescents, participants were also given a Polaroid photograph of themselves or a group photo with their friends or family, depending on their preference.

⁴ *Incaparina* is a high-protein food made of cottonseed, sorghum flour, maize and yeast and is used extensively in Latin America to prevent protein-deficiency disease.

Participants and recruitment for formative research activities

Study participants were selected using purposive, nonprobability sampling. A total of 399 participants were enrolled across the three departments, and 158 data collection activities undertaken. At the national level, three interviews were conducted with government stakeholders and representatives from I/NGOs either in person or by telephone depending on the preference of the stakeholder involved. At the departmental level 13 interviews were conducted: six with representatives from NGOs involved in adolescent and/or nutritional programming; and seven with representatives from governmental agencies.

At the community level, 31 key informant / in depth interviews were conducted with community leaders and representatives from Civil Society Organisations (CSOs) involved in adolescent and/or nutritional programming. In addition, three interviews were conducted with adolescents in Chiquimula, four interviews were conducted with their caregivers, and one with a sibling of one of the adolescents. Nine FGDs were conducted with 103 caregivers of adolescents (64% mothers, 36% fathers). Caregivers were aged between 19 and 68 years, with an average age of 37 years. They were caring for between one and twelve children and adolescents, with an average of five children and adolescents in their care at the time of the research. The majority of the caregivers had left primary school in the sixth grade. Sixteen participatory workshops were conducted with 162 adolescents: 58 girls and 39 adolescent boys aged 10-14 years old; and 32 adolescent girls and 33 boys aged 15-19 years old. Eighty-two technology surveys were completed with adolescents and youth aged 10-25 years old. Table 2 details the activities and number of participants by location and stakeholder group.

The study aimed to include a range of adolescents to represent the diversity of the Guatemalan society. Table 3 summarises key demographic details of adolescents who participated in the workshops. The average age of adolescent participants (aged 10-19 years) was 14.5 years

Table 2: Data collection activities

		Alta Verapaz			Chimaltenango		Chiquimula
		Guatemala City	Cerro Azul	Chisec	Chimaltenango City	Xzetzizi	Marasxco
Interviews	Government officials	-	-	2	2	3	-
	Programme implementers	3	1	3	2	0	-
	Private sector	-	3	4	1	1	-
	Community leaders	-	5	4	1	3	6
	Caregivers	-	-	-	-	-	4
	Adolescent girls	-	-	-	-	-	3
	Siblings	-	-	-	-	-	1
FGDs	Mothers	-	38	8	10	10	-
	Fathers	-	7	11	9	10	-
Workshops	10-14 year old girls	-	31	8	10	9	-
	10-14 year old boys	-	15	6	10	8	-
	15-19 year old girls	-	10	5	10	8	-
	15-19 year old boys	-	8	5	10	9	-
Surveys	10-25 year old youth	-	21	20	21	20	-
Total (399)		3	139	76	86	81	14

Table 3: Demographics of the adolescent workshop participants

Demographic		% of participants (n=162)
Gender	Male	44
	Female	56
Ethnicity	Q'eqchi	25
	Ladino	25
	Indigenous	24
	Kaqchikel	19
	No response	7
Registered in/out of school*	In school	55
	Out of school	45
Marital status	Unmarried	94
Children	Have children	6

* On average, the highest education level of participants was fifth grade primary school.

Consent

Prior to commencing each data collection activity, informed consent was obtained. The research lead provided a full explanation of the study and emphasised the optional, voluntary, confidential and anonymous nature of participation. It was made clear that participation would not affect any future services and/or community benefits needed or received. All participants were given the opportunity to ask questions and for further explanation. The study's consent form (see Annex 6) was presented, explained in detail and read aloud for illiterate participants. The contact details of the WFP national focal point for the research was included on each consent form and provided to community leaders, governmental officials and industry representatives for their records. A copy of the consent form was provided to all participants upon request.

Particular attention was given to the consent procedure at the start of each adolescent workshop. The study and workshop objectives and the individual's participation were explained in detail to their caregiver (many of whom also participated in focus group discussions) and who were asked to complete the study's consent form. In a small number of cases, caregivers were not available for the research team to engage, so local village authorities (e.g. COCODES) who were informed about the study and often responsible for recruiting participants, provided verbal consent on behalf of a caregiver. The study and their participation were explained to the adolescents in an appropriate and accessible manner and in their own language. They were asked for their assent and given the opportunity to also complete the assent consent form.

All research participants, including the adolescent participants, gave informed consent by signing the consent form. At the conclusion of fieldwork, all consent forms were retained in soft copy by WFP Guatemala and hard copy by Anthrologica.

Data management, transcription and translation

All interviews, FGDs, and adolescent workshop discussions were recorded using a digital voice recorder, with the exception of two stakeholder interviews in which the participant requested an audio recorder not be used. Detailed notes were taken by the research team during each data collection session and particularly during the interviews that were not recorded. All data were stored securely on the principal researcher's password protected laptop and backed up on a portable hard drive.

At the end of data collection, the audio recordings of all the data collection sessions were transcribed into Spanish. Anonymised transcripts were produced in Microsoft Word. The transcripts were reviewed by the principal researcher for accuracy and were cross-referenced with the research team's field notes. Any

areas of inconsistency were resolved after an additional review of the original audio file. All transcribed interviews as well as the stakeholder mapping excel table were then translated into English and checked for accuracy with sections back-translated. Again, any areas of inconsistency were resolved.

All technology surveys were completed on paper by the local enumerators. Hard copies were collected and at the end of the fieldwork, and the data entered into Excel, cross checking the entries against the original paper copies. Hard copies of all the technology surveys were retained by WFP at the conclusion of the fieldwork, and Anthrologica retained soft copies.

Data analysis

Preliminary analysis was conducted throughout the data collection process and the research team presented initial findings to key WFP staff during debrief sessions at the conclusion of the fieldwork.

The full analysis of all qualitative data was conducted by the lead researcher using thematic analysis. Dominant themes were identified through the systematic review of interviews, FGDs, workshops and observation notes. Salient concepts were coded and their occurrence and reoccurrence labelled using MAXQDA software. The emerging trends were critically analysed according to the research objectives. Particular sections of *ad verbatim* narrative were used to build case studies and were included in the report to ensure the voices of participants were captured and maintained. The demographic data of participants and technology survey data was analysed using Excel. The analytic process was systematic and transparent, and all raw data were made available to WFP.

Methodological limitations

The study had a wide geographical scope, which combined with a limited timeframe and resources, posed a certain set of challenges. Throughout the research, the team sought to mitigate the impact of these issues by employing a carefully developed pragmatic methodology and by efficiently utilising resources available. The maximum possible number of interviews, FGDs, workshops and surveys were conducted at each field site given the time and operational constraints.

In qualitative research, there is always a risk associated with misinterpretation and the possibility that participants provide what they perceive to be socially-correct responses, or withhold sensitive information. Attempts were made to mitigate these risks by the research team working closely together to plan translation styles in advance and how to best capture colloquialisms, abstractions, idiomatic expressions and jargon. Careful phraseology was used when posing questions. Sections of narrative were repeated to the participant to confirm or clarify statements. In addition, the research team was not known to the communities or individual respondents in advance, and through the careful consent process, a 'safe-space' for sharing ideas was created. Participants were encouraged to speak openly and the research team did not feel that socially-correct answers biased the findings. Interview and discussion frameworks allowed similar questions to be asked in multiple ways in order to triangulate responses across relevant stakeholders. Observational data compiled during photowalk activities in the community also served as a method of verification (e.g. the condition of crops, food varieties, consumption of fast food etc.).

A challenge for the research team was managing the number of participants who were mobilised at the community level. High numbers of participants made it difficult to implement the participatory activities and dedicate time and attention to each participant. There were also issues of privacy that had to be carefully navigated. In Cerro Azul, COCODE advised the research team not to close the door where the workshop was being held as mothers may think '*you are doing all sorts of things with the girls*'. There was a high level of suspicion about '*foreigners*' (people from Guatemala City and abroad), and local stakeholders referenced abusive behaviour by '*foreigners*' in the past. Given these concerns, the door to the room was kept partially open, but a female caregiver stood by the door to prevent other curious

children from disrupting the workshop. For those adolescents who had been mobilised by their community leaders but could not participate in the workshop, the research team organised additional sessions at the end of the day for group games. This was well appreciated by the adolescents, and also by COCODE who expressed gratitude for sensitively managing community relations and expectations.

In other locations, caregivers were reluctant to allow adolescent girls to be engaged individually. Also, the community-based facilitators who supported the selection of respondents may not have perceived adolescent mothers to be suitable for inclusion given that they were perceived to be 'adult'. Many parents spoke of the shame associated with their daughters being 'bad' (getting pregnant at an early age). This may have precluded parents from volunteering their daughters for participation, and may have also prevented adolescent mothers themselves from coming forward. To overcome this, and create a safe space where the girls could speak in private and her family were reassured, the research team were careful to engage the whole family unit first to explain the study, then conduct an in-depth interview with the head of the household (most of often the girl's father), the primary caregiver (most often the girl's mother), and a male sibling, and then with the girl. This approach, which a field assistant likened to '*peeling an onion*', proved successful. In stressing the importance of hearing the different options of household members and explaining that the adolescent girl was being engaged because she would soon be a woman, communities appeared more receptive.

Although there was a high degree of interest in participating in the study, it was challenging to find a suitable time to meet with adult respondents, particularly male respondents in urban areas. Many worked long hours and had to leave early in the morning to travel to their workplace or farm. To overcome this, the majority of adult participants were engaged after church on Saturdays and Sundays.

In Chimaltenango, many of the girls involved in the study were living in an orphanage, having lost both parents or because they were a victim of (sexual) abuse. Because of this, findings in Chimaltenango are likely not generalisable, but given high rates of sexual and child abuse in the country, the inclusion of this group of interlocutors was important and findings are likely to be representative for girls facing similar issues in other cities in Guatemala.

In Guatemala, there is a diverse landscape of governmental and I/NGO partners delivering community-based health, nutrition and other services for women and children and it was not possible to engage all potential partners in the country. As far as possible, stakeholders were mapped in advance of data collection, and the WFP Country Office was able to prioritise key partners for inclusion in the study. Scheduling appointments with government representatives, UN agencies, NGOs and other service providers was difficult due to their limited time and competing priorities. As WFP supports SESAN and provides the government of Guatemala with technical expertise, it was essential that the government be included in the research process. Although this resulted in delays in the data collection process, particularly in the mapping component, every effort was made to facilitate positive interactions with the government and secure their support.

The engagement of private sector actors in the fieldwork was a significant challenge for the research team. This was largely because of the busy schedules of private sector actors and the bureaucratic and procedural requirements required to secure meetings, but there were also sensitivities about national members of the research team engaging private sector representatives directly. As a consequence, it was decided that only the lead researcher and WFP consultant would engage private sector actors through a series of telephone calls, but still, access proved challenging and private-sector willingness to cooperate in the study was low.

Given the sample size of the study, results cannot be extrapolated to a wider country context. Particularly in the case of Marasxco, Chiquimula, as the site was only intended to be the location for a case study illustrating specific food insecurities families in the Dry Corridor face. The saturation of findings from Alta Verapaz and Chimaltenango indicate data from these departments are likely applicable to adolescents of similar ethnicities living in both rural and urban settings in other areas of the country. Findings across all research locations were broadly corroborated by the literature reviewed.

1. Defining and experiencing adolescence

Adolescence is commonly understood as the life stage between the end of childhood and the beginning of adulthood (Kaplan, 2004). Conceptually, the UN defines adolescence as spanning the age range 10-19 years, although others argue for 10-24 years (Sawyer et al., 2018). Adolescence is a dynamic concept, both culturally and historically. The length, the progression and even the existence of adolescence as an interim life stage differs widely across cultures (Steinberg, 2014).

In Guatemala, there was not one standardised definition or age range for adolescence applied across laws and policies, and there were marked disparities between community-level definitions of adolescence and the terminology adopted at the national level. It was clear that conceptually, there was a distinct period of life that marked the transition from childhood to adulthood, although how that transition was defined, what triggered the entrance and exit between life stages, and the terminology used to describe it varied across research sites.

Age was rarely used to indicate different life stages at the community level and the markers of adulthood could be observed in individuals considerably younger than 18 years old, the legal age of majority in Guatemala. During early adolescence, the paths of girls and boys diverged, with mobility for adolescent boys increasing, whilst a girl's sphere of influence became more restricted to her household. Marriage was identified as the main marker for the transition from adolescence into adulthood for both girls and boys of all ethnic groups and across all research sites. In some cases, the conceptual juxtaposition of 'markers of adolescence' were found to impede effective and efficient programme implementation as a number of adolescents excluded themselves from services aimed at 'youth' and/or 'adolescents' because they self-identified as adults (given that they were already married, had a child or '*worked on the field*'), despite being in the 10-19 age group.

National definitions of adolescence

At the national level, the age at which a child becomes regarded as an adolescent is dependent on the government agency formulating policy. The National Youth Council (*Consejo Nacional de Juventud*, CONJUVE) with the Ministry of Social Development (*Ministerio de Desarrollo Social*, MIDES), the Secretariat of Planning and Programming of the Presidency (*Secretaría de Planificación y Programación*, SEGEPLAN) and the Ministry of Health and Social Assistance (*Ministerio de Salud Pública y Asistencia Social*, MSPAS) regard adolescence to start at 10 years old. The Supreme Court of Justice (*Corte Suprema de Justicia*, CSJ), however, stipulates 13 years, in line with the constitution. Across legislation, the concepts of 'childhood', 'adolescence' and 'adulthood' are measured by age (see Table 4 below).

The National Youth Law (*Initiative de la Ley Nacional de Juventud*, 3896), a law that aims to protect and promote the rights and obligations of young people in the country, established the National Youth Policy 2012-2020 (*Política Nacional de Juventud 2012-2020*) drafted by CONJUVE, MIDES and SEGEPLAN. Under this law and policy, a person is an '*adolescente*' (adolescent) when aged between 13-18 years, and a '*joven*' (young person, youth) from the age of 18 until 30 years. At 30 years, a '*joven*' becomes a '*adulto*', an adult member of society.

In the Guatemalan penal law (*Decreto 27-2003*), a child becomes an adolescent at 13 years old, and adult at 18 years. As an adolescent, a person has criminal responsibility over his or her actions and can, as a consequence of such actions, be tried and sent to juvenile prison if found to be in violation of the penal law.

The National Plan for the Prevention of Teenage Pregnancy (*Plan Nacional De Prevención de Embarazos en Adolescentes y Jóvenes*) drafted by the National Youth Council and the Ministry of Health and Social

Table 4: Legislative definitions of adolescence in Guatemala

Law/Policy	Responsible agency	Age of adolescence (years)
National Youth Law & Policy 2012-2020 (<i>Política Nacional de Juventud 2012-2020</i>)	CONJUVE, MIDES, SEGEPLAN	13-18
Protection Law of children and Adolescents (<i>Política Pública de Protección Integral y Plan de Acción Nacional para la Niñez y Adolescencia de Guatemala</i>)	SEGEPLAN	13-18
Guatemalan penal law (<i>Decreto 27-2003</i>)	CSJ	13-18
Marriage law (<i>Código Civil de Guatemala</i>)	CSJ	18 and over
National Plan for the Prevention of Teenage Pregnancy (<i>Plan Nacional De Prevención de Embarazos en Adolescentes y Jóvenes</i>)	CONJUVE	10-19
Welfare and Health Policy for Adolescents and Youth 2015-2024 (<i>Política de Bienestar y Salud para la Adolescencia y la Juventud 2015-2024</i>)	MSPAS	10-19

Assistance defines adolescence as being the period between 10-19 years (CONJUVE, MSPAS 2015). The plan outlines action points and strategies to protect adolescent girls from becoming pregnant before they become an adult at 19 years old. In the Marriage Law (*Código Civil de Guatemala*), however, a person can legally be married at the age of 18 years.

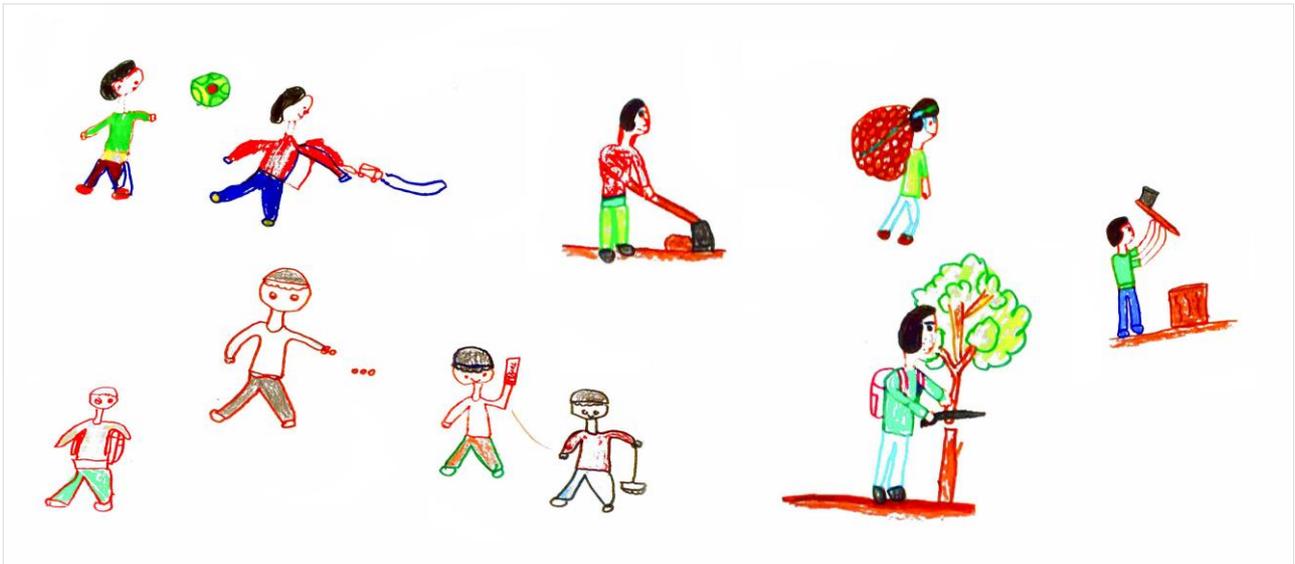
The Welfare and Health Policy for Adolescents and Youth (*Política de Bienestar y Salud para la Adolescencia y la Juventud 2015-2024*) is a national policy by the Ministry of Health and Social Assistance that aims to protect the wellbeing and health of adolescents and youth in Guatemala through guaranteeing universal, equitable and high quality access to health services. The policy is directed at young people aged 10-29 years old and highlights the existence of three sub-categories of adolescents: early adolescence from 10-13 years; mid-adolescence from 14-16 years; and late adolescence from 17-19 years.

Community definitions and markers

Across the research sites it was understood that adolescence was a key moment in life, yet, there was no set age at which one ‘turned’ into an adolescent or adult (see Table 5, at the end of the chapter). As a caregiver from Chimaltenango indicated, ‘Some might be earlier, some later... it (adolescence) does not happen in all boys and girls at the same time’.

Both adults and adolescents across research locations described biological changes and physical growth as key markers of adolescence. As a 12 year old boy who participated in the workshop in Cerro Azul, Alta Verapaz, confirmed, ‘Our body and our state of being changes’. Boys noticed that they would rapidly become bigger and stronger, and their voice would deepen. Caregivers added that adolescence was the time when boys started to have ‘wet-dreams’. For adolescent girls, first menstruation marked the most significant change (as discussed below), but other physical changes were also noted, particularly breast growth.

Such physical changes triggered social changes, including an adolescent’s shift in status in the community. It was seen to be a time when both boys and girls had to ‘stop playing on the street’ and become more ‘responsible’. During early adolescence, the path of girls and boys diverged. Girls were taught by their mothers and other female members of the household to become ‘good’ women, whilst boys were taught by their fathers and male members of the household to become ‘responsible’ men.



'Adolescents [on the left] grow up to be adults [on the right]'. Drawing by two 12 year old boys, Xzetzizi, Chimaltenango.

Adolescent boys: from playing with friends to 'carrying sticks'

Community members often measured the maturity of boys in terms of their physical strength and the work they were able to do, particularly linked to hard farm labour (see image above), and their contribution to household income. This was evident across research sites but was more marked in rural areas and in families from lower socio-economic backgrounds. In a focus group discussion in rural Xzetzizi, Chimaltenango one father explained that in his community, they assessed whether a boy is ready for socialisation by asking *'Can he carry a pound of corn?'*, whilst another father concluded that boys became adolescents *'When they can start to work directly in the field... when they can work with adults'*. Urban boys and their families, particularly those from marginalised and poor indigenous families, also indicated that the maturity of boys was measured by the work they were able to do.

When boys started heavy work in the fields, they were also able to earn an 'adult salary'. In Xzetzizi, fathers suggested that whilst they would recommend their sons for farming the land, they would first make them do a test (*prueba*) to ensure they could do sufficient work to secure sufficient income. When boys, from twelve years old, were thought to be ready to work on the land, they were made to work for a fifteen-day stretch. If they failed to complete the stint, they *'Have to go back to be with the women again'*. Boys were proud of their ability to work in the field, or to work alongside their fathers and other men to gain some financial independence. In the participatory workshop in Xzetzizi, 11 year old boys agreed that they no longer *'played in the field'*, but went to work with their fathers. As a 17 aged boy who was working as a daily labourer on a broccoli farm close to Chimaltenango City explained,

Since the boy is making some money he has an obligation to contribute something to the house. The father uses the money to save for the boy so that when he is 18 or 20 years old he will need to buy land or make a house, that is what his father wants for him.

It was common for adolescent boys to drop out of school to help their fathers earn money, although many worked long days for a very low wage or sometime no payment at all (see Narrative 1 below).⁵

⁵ In discussing their experiences, 'typical day-in-the-life' narratives of adolescents have been built from the workshop participants' self-reported activities. The narratives therefore represent a composite character rather than any one individual, and reinforce the many similarities girls and boys from the different locations described in their daily lives. For further details of the use of composite characters in qualitative research see Narayan (2012) and Angrosino (1998).

Narrative 1 – A day in the life of a 12 year old boy in a rural community in Alta Verapaz

Normally I get up at around six o'clock in the morning. Then I have breakfast. I have that what my mother and my sisters have prepared for me. We eat vegetables like mushrooms or green leaves. Sometimes we eat eggs and beans. But, the tortillas, those we eat every day.

At around seven in the morning, I go to find firewood on the hill and then from there I will go to work at the plot with my father. It takes me around 90 minutes to reach the farm. Sometimes my uncles walk with us as well. Sometimes I go to school. Not too often though, maybe one day per week.

At four o'clock I normally get home and then I rest for a bit, or play football with my friends. At night, after dinner, I sometimes go to the shop close to my house. They have a television there. I have to buy a small bag of Tortrix [a small bag of crisps] and then I can watch. Normally we watch films like Rocky, and sometimes we watch football.

Adolescent girls: menstruation and housework

Across Latin America, a girl's coming of age at 15 years old is often celebrated with a '*fiesta de quinceaños*' ('the celebration of turning fifteen years old'). It marks the transition from girlhood to womanhood and is often celebrated in church, or at home with family and friends. In indigenous communities in Alta Verapaz, mothers in Cerro Azul explained that ideally, tamales (a seasoned maize flour steamed or baked in maize husks, typically eaten with meat) and chicken would be eaten during the celebration, but indicated that in reality, such festivities were rare in their communities because, '*There is no money for a quinceanera*'. Rather, a girl's coming of age was marked by an increased amount of work in the household, and often a significant reduction in their mobility.

When a girl starts menstruating her status and role in the community change. This shift was particularly evident in indigenous and rural communities. A mother of an indigenous adolescent girl in Cerro Azul explained, '*When they start their menstruation... they maybe want to already be talking to a man... and then I say to her, you are now a women and I tell them what I know about life*'. With this biological change, girls have to learn to assume more adult-like responsibilities in the household and female members of the household, mainly a girl's mother and aunts, begin to pass on essential knowledge, '*We teach them how to do work at home. All that a mother knows, that is what they teach their daughters*'. As a mother in Chimaltenango City explained,

'When the girl gets bigger, they begin to sweep, they are asked to clean the house, wash Nixtamal [dough used to make tortillas and tamales], or go to the mill. If they have sisters they go with them, so that they educate them. They make the tortillas in the morning, and then again in the afternoon'.

Many girls who participated in the workshops, particularly those in rural and/or indigenous communities, confirmed that they found the burden of household work to be high, and they missed having '*time for ourselves*' (see Narrative 2). Younger adolescent girls who had started menstruation, but did not necessarily understand its biological or social significance, noted changes in the way their parents behaved towards them and their increased household chores. As a 13 year old girl in Xetzizi, Chimaltenango concluded, '*When you are a child you play, but when you are big you have to care for the smaller ones. Now we are adolescents, they don't treat us like children anymore. We are ladies now*'.

Social spaces – 'fixing' and mobility

Whereas the early phase of adolescence was marked by biological changes, in the later phase, adolescents were seen to become more aware of and focused on their changing place and role in society. Their attention was directed more to friends than family, and on the '*outside world*' rather than their household. As a female community leader in rural Cerro Azul, Alta Verapaz explained, '*They move in their own little*

Narrative 2 – A day in the life of an 11 year old girl in a rural community in Alta Verapaz

I normally get up at five in the morning. I help my mother make tortillas for the whole family before I go to school. I go to school at 7.30am and I stay there until midday.

When I get back from school at midday, I make tortillas for lunch. I also make the wood fire on which we cook, and when we finish eating I am the one who washes the plates at the sink next to my house. I then brush the house with a broom so it is nice and clean.

And if our family needs it, I then go to look for firewood there [points to a large hill covered in green vegetation] on the hill. It takes me and my sister about half an hour to walk up the hill. If we don't have to go for wood, we have to wash clothes. It is unfair. The boys make their trousers dirty and we have to wash them. When there is no water, we have to haul water from the communal water tap system. It is boring washing alone... all my friends wash clothes close to their homes.

Sometimes when I finish early I play football with my friends, we have a team called 'Brasil'. We only play with the girls and when the boys come back from working and they want to play, we leave the field. We don't play much though, there is always something to do in the house. If my teacher gives us homework, I do this after lunch or in the evening. I can't go to play unless I have done all my homework.

In my family we eat dinner around six o'clock. Often we eat vegetables like mushrooms with tortillas and chili. I help my mother but I don't have to make the meal myself. At around eight or nine o'clock I go to bed.

group of friends, talking together, watching television together', rather than being interested in life at home, as parents often preferred.

Self-identity and presentation also took on greater significance. A 15 year old girl in Cerro Azul, Alta Verapaz explained, *'Before as a child we were always dirty... [but now] we have to care for ourselves, we need to wash ourselves, particularly when we have our menstruation. Now we need to have clean clothes'*. Fathers in a focus group in Cerro Azul, Alta Verapaz agreed, *'A young girl of 14 years old can still play with dolls but when she turns 15 years old she leaves her dolls and starts to arrange herself, to look pretty and be presentable'*.

As adolescents start to increasingly *'arreglar'* (to fix) themselves, parents confirmed that they grew more attentive of their children's behaviour. In their participatory workshop in Chisec, Alta Verapaz, 15-19 year old girls suggested, *'You stop being a child when you start to look for a husband'* and caregivers confirmed that the movement of girls is closely observed as soon as she starts to express sexual interests. As a mother from Cerro Azul, Alta Verapaz, explained, *'Perhaps she is already talking to a young man of the age of fifteen or eighteen. If I send her out for an errand, I also send her little brother with her so that I know what she is doing... I don't want her to get into trouble'*. In this context 'trouble' meant being at risk of unwanted attention (see Narrative 3), but was also related to the risk of adolescent pregnancy (discussed below).

In reaction to the increased control parents exert, adolescents were seen to become more rebellious. The mother of an adolescent son in Chimaltenango explained, *'We say to them, don't go out at night, it is dangerous, save yourself for one girl. And they say, you are old, I am still young, I want to enjoy with my friends, I want to go out. But that is bad'*. A female community leader in Chisec confirmed that as a girl, her parents had also monitored her movements, as she now monitors her own daughter, *'My mother's tactic was with saliva... She spat on the floor and if the saliva had already dried up when I arrived home, it was the whip that met me.... [Continuing to speak about her own daughter], I don't want her to embarrass me in the street. To see her standing in the street talking to a man, I don't even know what they talk about...'*

Narrative 3 – A day in the life of a 16 year old ladina girl in Chimaltenango City

At seven o'clock I normally get up and make breakfast. I eat cornflakes with milk. Then I help my mother clean the table and together we do the dishes. Then I go to school. They [NGO offering education services] pick me up. It is dangerous to walk the street alone, or if you go by public transport... the men would just say nasty things to you... and I don't want to lose my adolescence...

Then I have classes, either reading the bible or doing maths. Then we eat a refreshment, maybe some bread with eggs or a hotdog.

*At noon I go back to my house by bus. I help prepare lunch and wash the plates. Then, maybe I go with my friends to watch the boys play football or to the market with my mother... At night I often watch television with my brothers and sisters. We watch *La Rosa de Guadalupe* together [a Mexican soap series watched by many adolescents engaged in the research]. Then I go to bed...*

Adolescent pregnancy and marriage

Adolescence was seen to be a critical period in determining a person's future. Caregivers confirmed that a 'mistake' during adolescence could reinforce the cycle of poverty that they had tried so hard to break away from. In a focus group in Chimaltenango City, fathers and grandfathers explained, '*In this time, an adolescent can do crazy things and lose their adolescence*'. The greatest fear of all caregivers across the field sites was that their children (both girls and boys) would conceive a child before they finished high school. As a mother of two children from Chimaltenango City explained, '*I can only say that adolescence is a very difficult stage for both boys and girls. As mothers we can only pray*'. In discussing her 15 year old daughter, a mother in Chisec, Alta Verapaz, confirmed, '*Girls have to take care of themselves, to guard their 'goodness'. I don't want to get her to get carried away by the words of a man, she could get pregnant, and then she would lose her adolescence, I think. I always say to my daughter watch out with your youth*'.

The rate of adolescent pregnancy in Guatemala is high, and there is limited use of contraceptives (discussed further below). Across all field sites, it was made clear that when adolescents had a child, they were considered to be an 'adult' regardless of age. As one father in Chimaltenango explained, '*At this time there are so many children who marry... they have left their childhood behind*', whilst another concluded, '*They don't have their five senses together. It is stupid because they don't have the ability to take care of their children yet*'. Adolescent girls in Chimaltenango City, also emphasised the challenges of having a baby at a young age, concluding, '*You are still a baby yourself*'.

Marriage was seen to be the only socially acceptable solution to early pregnancy. Younger adolescents (i.e. between the ages of 12 and 15 years old) who conceived were required by their communities to marry, but given that they were not able to sustain their own household or family, usually became the responsibility of the boy's parents. Such a young couple occupy a particular liminal state until they have saved sufficient money or materials to build their own house and are able to cultivate or purchase their own food. As a father in Xzetzizi, Chimaltenango explained,

If a boy of 13 or 14 years old gets a girl pregnant, he has to bring her to his parents and there they will stay because he does not yet have the responsibility to take care of a woman. He can't do the things an adult can do, he might not have a 100% understanding of how to take care of a family. He stays a while with his father and then his father sees if he can live alone.

As a participant in Patzún, Chimaltenango, explained, adolescent pregnancy put families in a precarious position.

It happened to my sister. She went and met a boy, then she went with him and she got pregnant. The boy then had to go to my father to ask for her hand. My father threw her out of the house and she had to go live with the boy's family. Now the boy's family does not have to pay the dowry that normally comes when an official marriage takes place, and this is still a problem for my family.

Having two extra mouths to feed (i.e. the girl and her child) had a direct effect on the availability of food in a household, particularly if resources were already scarce. One caregiver in rural Cerro Azul, Alta Verapaz who had her daughter-in-law living with her explained that having a baby could be a burden to the household, *'When the baby is born you have to take care of him or her. All day, the baby wants to eat so they can grow'*. The mother of an adolescent boy in Chisec, Alta Verapaz suggested however, that it was the daughter in law who posed more of a burden, *'When they are young they don't eat as much and when they grow you have to serve them more, because they are bigger'*.

A number of the indigenous girls who participated in workshops had already moved in with their husbands. They discussed their liminal position as a daughter-in-law and the responsibility of helping their mother-in-law with household tasks. As an 18 year old girl in Marasxco, Chiquimula, explained *'When my husband comes from Honduras [where he worked in construction with his uncle], he gives the money to his mother. We buy food together for everyone [in the household]. I help her in the house, washing plates and cleaning clothes'*. Older adolescent girls (aged 15-19 years) in Cerro Azul, Alta Verapaz explained that household responsibility increased with marriage, *'When you have a husband... it [sometimes feels] better to be alone [laughs]. The work he wants you to do is harder than before, washing clothes, preparing food... When girls get married, and start to care for their children it is hard. But when they are adolescents it is all better'*.

Guatemala has one of the highest rates of child marriage in the region (Girls Not Brides, no date) and early marriage was common across all sites included in the research. Participants emphasised that this was because *'Christian religion dictates sexual relations can't be practiced outside or before marriage'*. Because the legal age of marriage is 18 years, *'informal'* marriage amongst adolescents was common, particularly amongst indigenous communities. A caregiver in Patzún, Chimaltenango, suggested, *'Here in the community they don't marry formally anymore, they just go and live with each other'*. Once a girl moves in with a boy's family, the community will regard them as being married adults.

To *'control'* the behaviour of adolescents, prevent them from making *'mistakes'* and to encourage them to grow up to be a healthy adult, Guatemalan culture (heavily influenced by values promoted in the Christian church) continues to make use of the dichotomy between heaven and hell. Adolescents were told that people who followed the *'good road'* go to heaven, but that people who made mistakes *'move to hell'*. For both girls and boys, the *'good road'* was interpreted as *'Going to school and then finding work'*. Only after graduating from school should a person marry and have children. If school attendance was not possible, then a *'good'* girl will stay at home (a *'good'* space) to help her mother in the household. A female community leader in Chisec, Alta Verapaz, explained, *'A good girl gives a good example to her brothers and sisters. They don't look for problems and they can't have any hidden boyfriends'*. A *'good'* boy works with his father to help earn money for the household until he is old enough to get married and *'start his own life'*.



Two necklaces worn by a 15 year old girl, Xzetzizi, Chimaltenango. The heart was a gift from her boyfriend, the cross from her parents.

In contrast, a *'bad'* girl *'walks with boys'* on the street (a *'bad'* place), leaves the house without parental permission, and *'no longer goes to church'*. A *'bad'* boy smokes, drinks and spends time with friends on the street. Caregivers acknowledged that limited opportunities could make children take the *'wrong road'*. As one father in Chimaltenango City suggested, *'Here there is almost no work, and this can cause someone to walk the wrong road. It is difficult if you are not able to find money, and if a boy wants clothes or needs something, but he does not have anywhere to get it, then he might take the wrong road'*.

Marriage was identified as the main marker for the transition from adolescence into adulthood across all ethnic groups and in all research sites, regardless of whether a girl was pregnant or not. Fathers in Cerro Azul, Alta Verapaz agreed, *'Where adolescence stops is when we marry... that is when one becomes an adult'*. If a person did not marry, they were not necessarily regarded as a *'full'* adult, regardless of age. The fathers in Cerro Azul, Alta Verapaz continued, *'If I was thirty years old, for example, and if I was still single, they would not say 'Don', they would still call me 'joven'. Because of that, if you don't get married you will continue to be this adolescent'*.

Linguistically, the distinction between children, adolescents and adults is notable. In Q'eqchi', *'Saaj'* or *'Saajilpoyanam'* is the term for someone who is *'still young'* but not yet married or *'together'* (i.e. in a relationship). In Kaqchikel, adolescents (10-14 years old) are described as *'aq'uala'*, a term denoting a person who is not a child but not yet *'xten'* or youth (aged 14 years and older). From 18 onwards, terms become associated with gender, and a married man is referred to as *'achin'* and a married woman as *'ixoq'*.



Adolescent girls participating in the photowalk activity, Xzetzizi, Chimaltenango.

Table 5: Selection of participant definitions and markers of adolescence

Site	Respondent	Marker	Age of marker	Example
Cerro Azul	Girls 10-14	Homework	No specific age	<i>'When you can no longer play but have to help your mother'</i>
	Girls 15-19	Physical changes	12-13 years	<i>'There are physical changes, for example you get you period and your breasts grow'</i>
		Marriage	No specific age	<i>'The age does not matter, you can only be a young person if you have not yet gotten married'.</i>
	Boys 10-14	Ability to work	No specific age	<i>'Our body and our state of being changes'</i>
	Boys 15-19	Marriage	No specific age	<i>'When a boy finds a wife he becomes an adult'</i>
	Mothers	Socialisation	13-14 years	<i>'Then they have to start learning how to do things in the household'.</i>
			15-16 years	<i>'When they reach that age they already have to learn how to do homework'</i>
	Fathers	Physical changes	15 years	<i>'That is when they get their period'</i>
Marriage		14-18 years old	<i>'They stop being adolescent when they marry and become 'senoras''. Or 'when they get pregnant they are no longer a young girl'.</i>	
Chisec	Com. leaders	Marriage	16-17 years old	<i>'They start to leave the football alone'</i>
		Changed behaviour (individual)	15 years	<i>'When she gets 15 years old she stops playing with dolls and starts 'fixing' herself, to look pretty and presentable'</i>
	Girls 10-14	Romantic feelings	No specific age	<i>'When they start to fix themselves better and move around with their friends'</i>
	Girls 15-19	Socialisation	No specific age	<i>'When they have to walk with their friends to the mill to make the Mixtamal'</i>
	Boys 10-14	Romantic feelings	No specific age	<i>'A girl when she starts looking at boys and finds a husband'</i>
	Boys 15-19	Bodily changes	No specific age	<i>'We grow strong and our voice changes'</i>
	Mothers	Ability to work	No specific age	<i>'When a boy stops playing and starts to go to seek work'</i>
	Fathers	Socialisation	No specific age	<i>'When a girls starts to help her mother in the household, making the tortillas'</i>
Community leaders	Ability to work	10-12 years	<i>'When they can work'</i>	
		10-12 years	<i>'When they turn ten, twelve years they are already adolescents and learn how life is, how they have to live, practice hygiene, learn household tasks, all that a mother needs to teach her children, that, I think is the change (laughs)'</i>	
Xzetzizi	Girls 10-14	Socialisation	10-12 years	<i>'Someone stops being a child when they turn ten or twelve years and learn how you should life... learning about work, all that a women should know and should teach her children'</i>
	Girls 15-19	Household work	No specific age	<i>'When we don't have time to play anymore'</i>
	Boys 10-14	Financial independence	No specific age	<i>'When we can buy our own mobile phone'</i>
	Boys 15-19	Socialisation	18 years	<i>'When they turn eighteen years and they start to work in the field with the other adults (then they are adults)... Boys play in the field... adolescents go to work'</i>
	Mothers	Ability to work	No specific age	<i>'When I am going to work with my father'</i>
	Fathers	Romantic feelings	No specific age	<i>'When they start to fix themselves and start to dress differently'</i>
	Com. leaders	Financial independence	No specific age	<i>'That is when they (the landowners) will pay him as an adult man... as a 'normal' adult men who works with a hoe'.</i>
Chimaltenango	Com. leaders	Emerging sexuality	15-18 years	<i>'When they want to have sexual relationships'</i>
	Girls 10-14	Romantic feelings	No specific age	<i>'When they start to talk with boys over Facebook'</i>
	Girls 15-19	Physical changes	12; 13	<i>'There are physical changes for example, you get you period and your breasts grow'.</i>
	Boys 10-14	Physical changes	No specific age	<i>'When we grow taller'</i>
	Boys 15-19	Adulthood	No specific age	<i>'When we find a wife'</i>
	Mothers	Changed behaviour	12-18 years old	<i>'There are already more awake and with a different mind... 'And they celebrate it in front of the boys'</i>
	Fathers	Mental capacity	14-18 years	<i>'At eighteen years they are starting to become a real person in their mind. Adolescents make many mistakes and there are not able yet to be adults'</i>
Com. leaders	Ability to work	No specific age	<i>'When they can help their parents, their parents think they are adolescents'</i>	

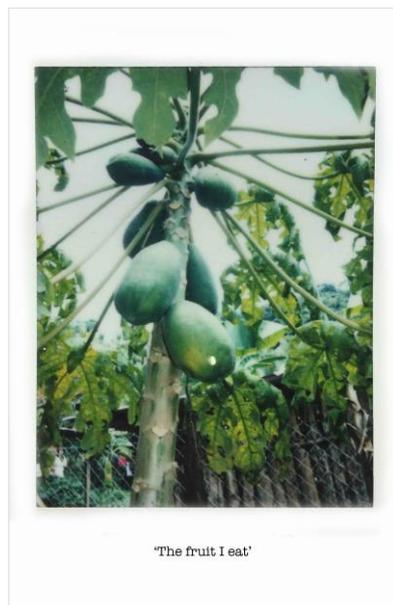
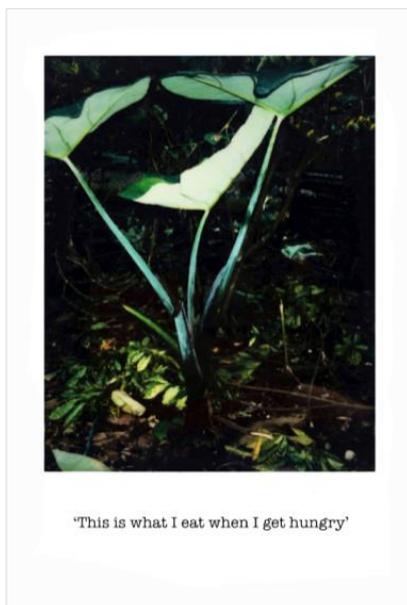
2. Food and nutrition

The chapter is structured around three sections: food consumption trends including preferences and aspirations, and the increasing trend of consuming fast food; typical diets in each of the research sites and household food allocation; and perceptions of health and unhealthy food and food classification systems.

Food consumption trends

Adolescent participants described having a uniform diet, often eating the same meal multiple times each week, or in some cases, every day (see Tables 6 and 7 below). Across all locations, adolescents confirmed eating a corn-based product multiple times a day, every day. Corn is the staple food in Guatemala, eaten by all sectors of the population as part of most meals, preferably in the form of corn tortillas. For indigenous communities, corn plays a central role and holds cultural significance.⁶ As a grandmother in Chimaltenango City noted, *'We may not forget the tortilla, no... when it is not there we don't feel like we ate...'*. Corn is not only part of the everyday diet, but also an important source of livelihood for many small-scale producers (WFP, in publication). Consumption of maize or corn is ubiquitous in Guatemalan culture, such that participants did not always identify the cereal as an integral part of their daily diet until probed further.

A number of respondents, particularly those who self-identified as being ladino not indigenous, explained that they preferred bread over tortilla (discussed further below). Across all research sites, however, adolescents and their caregivers reported supplementing tortillas with beans and eggs, a typical Guatemalan meal. As a participant in Chimaltenango City explained, *'Here we depend on the bean, we depend on it more than one can see'*.



Photographs taken by adolescent girls during their photowalk activities in Chisec and Cerro Azul, Alta Verapaz.

⁶ As stated in the *Popol Vuh* (a Maya manuscript dating from the sixteenth century written by the Q'eqchi' ethnic groups but embraced by many other indigenous groups in the country) gods created men out of maize '*our mother corn*' (Bassie-Sweet 2000). The Maya believe that the creator deities made the first humans from white corn seed that was hidden inside a great eastern mountain under an immovable rock. In order to access this corn seed, a rain deity split the rock open using a bolt of lightning in the form of an axe. This act burnt some of the corn, creating the other three colours of corn seed: yellow, black and red. The creator deities took some of the freed corn seed, ground it into corn dough, and used it to model the first humans. This primary act irrevocably connected humans to corn.

Table 6: Food adolescent workshop participants identified as part of their regular diet

		Chisec (peri-urban)	Cerro Azul (rural)	Chimaltenango (urban)	Xetzizi (rural)
Eaten daily	Tortilla	✓	✓	✓	✓
	Eggs	✓		✓	
	Soft drinks	✓		✓	
	Coffee	✓		✓	✓
	Beans	✓		✓	✓
	Fruit		✓		✓
	Vegetables		✓		✓
	Soft drinks	✓		✓	
	Chilli	✓	✓		
	<i>Atol</i> (a hot corn beverage)				✓
Eaten weekly	Sausages			✓	
	Spaghetti			✓	
	Vegetables	✓	✓	✓	✓
	'Chow Mein' (noodles)	✓	✓	✓	✓
	Herbs	✓	✓		✓
	Soft drinks		✓		✓
	'Caldo', soup (home made)	✓	✓		✓
	Soup (<i>Laky</i> ; instant)	✓	✓	✓	✓
	Fruits	✓			
	Chicken	✓		✓	
	Cheese			✓	✓
Eaten because it tastes good	'Tortix' – chips	✓	✓	✓	✓
	Frozen fruit with chocolate	✓			
	Pizza			✓	
	Fried chicken	✓	✓	✓	✓
	Ice-cream			✓	
	Sweets	✓	✓	✓	✓
	Soft drinks	✓		✓	✓
Fruits	✓	✓		✓	
Eaten sporadically	Meat – chicken, pig, duck, cow.	✓	✓		✓
	Tomatoes			✓	✓
	Pizza			✓	
	Fried chicken	✓		✓	✓
	Fruits – watermelon, pineapple			✓	
	Onions				
	Sausage	✓	✓		✓
Food they would eat if they had money	Fried chicken (' <i>Pollo Campero</i> ')	✓	✓	✓	✓
	Tamales	✓	✓		✓
	' <i>Tuyuyos</i> '		✓		
	Cacao		✓		
	Beer		✓	✓	
	Meat	✓	✓		✓
	Food from fast food restaurants	✓	✓	✓	✓

The table is constructed on the basis of adolescent girls' descriptions of their daily diet. It is representative of diets in the rainy season, when the fieldwork was conducted. Participants confirmed they had a more diverse diet in the rainy season than in the dry season. With few exceptions, adolescent girls across all field sites were able to list the foods they regularly consumed with the same level of specificity and detail as their caregivers.

Table 7: Typical daily food intake described by adolescent workshop participants

		Rural - 10-14 years					Rural - 15-19 years					Urban - 10-14 years					Urban - 15-19 years				
		Restaurant	At home	At school	At a shop	At work (boys)	Restaurant	At home	At school	At a shop	At work (boys)	Restaurant	At home	At school	At a shop	At work (boys)	Restaurant	At home	At school	At a shop	At work (boys)
Breakfast	Option 1: <i>Mosh</i> (warm oat drink), tortillas with chili		✓					✓					✓				✓	✓			
	Option 2: Cornflakes with milk, coffee												✓				✓	✓			
	Option 3: Beans with tortilla, a sausage, coffee												✓				✓	✓			
	Option 4: Vegetables like mushrooms with ' <i>Macuy</i> ' (a green leafy vegetable) with chili and tortillas, coffee		✓					✓													
Lunch	Option 1: Soup with vegetable, tortillas		✓	✓				✓	✓			✓	✓	✓		✓	✓	✓			✓
	Option 2: Tortillas, café		✓							✓		✓	✓		✓						✓
	Option 3: Fried chicken with rice or pizza with a soft drink											✓					✓				✓
	Option 4: Soup ' <i>Laky</i> ' (a popular brand), tortillas, Coca Cola		✓					✓					✓	✓				✓			✓
Dinner	Option 1: Eggs with beans, soft drink with bread											✓	✓				✓	✓			
	Option 2: Sausages and spaghetti with tortillas with a soft drink																	✓			
	Option 3: Eggs, beans, tortilla, water		✓					✓				✓	✓				✓	✓			
	Option 4: Tortillas, vegetables, chili, coffee		✓					✓					✓					✓			
Snacks	Option 1: <i>Tortrix</i> (chips)				✓					✓					✓					✓	
	Option 2: Biscuits or sweets				✓				✓						✓					✓	
	Option 3: Ice-cream													✓						✓	
	Option 4: Fruits		✓					✓						✓						✓	

Differences in food consumption patterns between urban and rural areas and across different groups of the population were due to a combination of affordability, availability, preference and social-norms (discussed further below). Adolescents in rural areas reported usually eating fruits and vegetables from the land (*tierra*) for lunch, the most important meal of the day. In contrast, adolescents from urban areas could only name two or three fruits or vegetables (most often bananas, watermelons, tomatoes or onions) that they would eat multiple times per week, but not every day. Urban adolescents more frequently reported eating meat (beef, chicken and processed meat such as hotdogs) during lunch than did their rural counterparts, who rarely consumed meat (chicken, duck, beef and pork).

There was more natural and fresh produce available in rural areas, whereas in urban areas, cheaply produced and pre-prepared foods were widely available from shops, food carts and (small) supermarkets, and were relatively affordable even for the poorest households. The consumption of processed, often imported foods (noodles, canned foods like sardines, and tinned beans) was reported by poor adolescents in both rural and urban areas. Adolescents across all research sites indicated that they would eat pre-prepared noodles (locally called '*sopa laky*'), spaghetti ('*fideo*') or tinned food at least once a week, but more frequently when economic resources were scarce or the harvest had failed.

Adolescents in urban areas reported eating more fast food ('*comida rapida*') given the limited availability of '*natural*' food. The fast food for sale in '*comedores*' (small informal restaurants) was often more expensive than preparing food prepared at home, but still relatively affordable. A mother of three in Chimaltenango City commented, '*The sad truth is that the adolescents they come together and they do their school group work there [in fast food restaurants], eating their pizzas with a litre of Pepsi... [My daughter], she drinks and drinks her Pepsi, sometimes is good, but ... every day eight cups?*'



Shop owner selling Big Cola to a customer, Xzetzzi, Chimaltenango

The high consumption of soft drinks ('*gaseosos*') was also observed across all research sites. Almost all adolescents indicated that they would drink Super Cola, Sprite or other soft drinks at least three times per week if not daily. Often, parents would purchase large bottles ('*yumbos*') of 3.30 litres which would be shared between the members of the family during breakfast, lunch and dinner. Adolescents from poorer economic backgrounds did not always have the money to afford such drinks, but aspired to purchase them and would often consume soft drinks on special occasions such as weddings, graduations and birthdays.



Boys loading Supercola for transport to the villages around Chisec, Alta Verapaz.

Consumption of soft drinks was interwoven with cultural practices. In Xzetzzi for example, words for Super Coca and other soft drinks existed in the local language; their consumption was included in health advice from traditional midwives ('*comadronas*'); and soft drinks were used in religious celebrations of the *Kaqchikel* Maya. These findings are aligned with other recent research (see for example, the ethnographic study on the use of soft drinks by the Tz'utujil Maya in Lago Atitlan, Nagata et al. 2011).⁷

⁷ Nagata et al. (2011) observed that Coca-Cola had become uniquely integrated into all aspects of Atiteco life, including cuisine, language, special events, celebrations and funerals. In Santiago Atitlán, for example, Coke and Pepsi cost less than bottled water if purchased in a returnable glass bottle (354 ml). Coca-Cola has become so ubiquitous in the diets of the Tz'utujil Maya it is synonymous with the word for water. More positively, however, Coca-Cola may have contributed to the local economy and Nagata et al. argue that it may have strengthened Tz'utujil identity. It has also been noted that drinking soft drinks has a more benign effect than ethanol consumption, and consuming soft drinks therefore has the potential to reduce the prevalence of alcoholism.

The consumption of unhealthy, fatty and sugary food was particularly common amongst urban communities and, increasingly, the rural poor. Guatemala has a strong food processing industry that, through effective marketing and distribution, has made snack food only ‘*an arm’s length from desire*’ (Nagata 2010). Even in remote communities such as Cerro Azul, Alta Verapaz, processed food including instant noodles, chips, soft drinks and sweets were available. In Chisec, Alta Verapaz, it was reported that major food companies such as Tortrix and Laky used community radio to promote their goods, organised parades and distributed candy during promotional activities. Food packaging was also designed to be attractive to young people, and as a salesman for a food distributor in villages close to Chisec suggested, ‘*The colours are striking to them*’. Soft drink producers also incentivised shops in both urban and rural areas to stock and sell their products by giving discounts dependent on sales. The companies did not need to offer discounts to consumers, however, as price points were already low, and sales were high. For example, at the time of data collection, six ‘*yumbo*’ Super Cola bottles (3.30 litres each), cost 5 Quetzal (around 0.68 USD).



Crisps and snacks for sale in a small shop, Chisec, Alta Verapaz.

Caregivers engaged across the field sites expressed their concern about the availability of so much ‘*bad*’ food near schools. This is in line with findings by Chacon et al. (2015) who conclude that ‘*child-oriented advertisements are available in almost all stores within a short walking distance from schools, exposing them to an obesogenic environment*’. According to Pehlke et al. (2016) food kiosks (‘*casetas*’) on school premises were a significant source of food for urban primary school children, with 75% of students purchasing food stuffs from them on a daily basis. Caregivers did not often provide pocket money for refreshments to younger adolescents who received lunch via school feeding programmes.⁸ Rather, snacking was seen to be an issue facing older adolescents, both those in-school who were given pocket money because they were not eligible for school feeding programmes, and those who had left education. One mother in Chimaltenango suggested that because adolescents could not ‘*Restrain themselves... They only buy snacks... all that snack food that is bad for you*’. Other caregivers associated purchasing snack food as a sign of growing independence. One mother explained, ‘*In primary school...they take their food... but the adolescents, no not anymore, they don’t like to bring their own refreshments... they like to buy them*’, and another mother agreed, ‘*Because of the age they have, they don’t take any fruit, papaya, apple, orange, or bread with beans. I have a big daughter and now she does not want to take this food anymore, she just wants to take the money [to buy snacks from shops or food stalls]*’.



“These snacks I buy with the pocket money I get”

Photograph taken by 16 year old girl, Xetzizi, Chimaltenango.

Adolescents confirmed that they spent their money on food that would not normally be eaten at home particularly snacks (‘*golosinas*’) including sweets (‘*dulces*’), crisps or other salty snacks (‘*tortrix*’). During their participatory workshops, adolescents took photographs of the places they enjoyed going and the food they enjoyed eating. They discussed the sense of independence they felt when purchasing such food, and some identified it as an opportunity to make decisions free from the restrictions of their caregivers or other influencers. They indicated that they purchased snacks because of the taste (‘*it just tastes good*’); notions about the food (‘*it gives us energy*’); and consumption associated with peer pressure and social acceptance (‘*we all buy it*’).

⁸ The Guatemalan Ministry of Education, with support from the World Food Programme provide free school lunches to children in primary schools. Younger adolescents reported eating eggs, bread, *atol* (hot corn based drink) *mosh* (hot oat based drink), *Incarparina* (high protein drink) and beans with sausages during their lunch break.

Adolescents in rural areas who did not have a stove or fridge at home also reported buying snacks because they were convenient (*'you don't have to prepare it'*).

According to the Guatemalan Restaurant Council (GREGUA), the number of restaurants increased by 10% in the decade to 2014 (GAIN 2016). Many adolescents in urban areas indicated their preference for eating at fast food restaurants such as 'Pollo Campero' (a Guatemalan chain that specialises in fried chicken meals), 'Pollolandia' (a central American chain with more than 2000 restaurants in the region) and 'Telepizza' (a fast-food Pizza restaurant chain partnering with Pollo Campero, selling cheap pizza slices alongside the popular fried chicken restaurant). In addition to selling affordable food, the restaurants' proximity to residential areas and their home delivery services increased their popularity, particularly in areas such as Chimaltenango City, where the prevalence of gang violence restricted adolescents' movements (discussed further below).

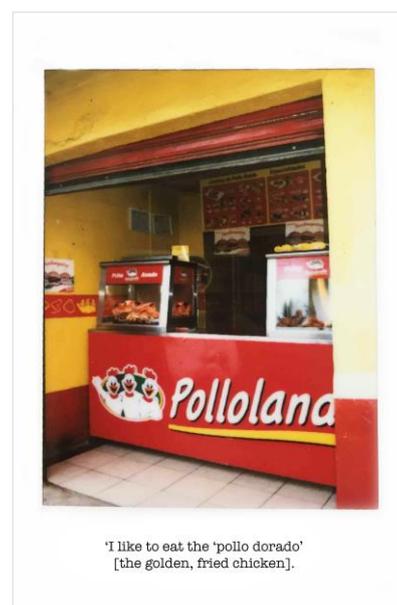
Adolescents who did not eat fast food, either because they could not afford it or did not have access to it, discussed their aspirations to do so. In Guatemala, being able to eat fast food is perceived to be a sign that a family has middle- or upper-class status. For example, adolescents in the participatory workshops in rural areas 'dreamt' of eating fried chicken in fast food restaurants. One boy in a workshop of 10-14 year olds in Cerro Azul, Alta Verapaz, echoed the sentiment of the group when he concluded, *'In 10 years, I will eat only chicken from Pollandia'*. Similarly, girls in Cerro Azul, Alta Verapaz, described that as adults they would drink coffee, Super and Brava beer and eat at fast food chain restaurants. A recent study by Millward Brown (2015) concluded that 76% of all Guatemalans 'prefer' to eat at fast food restaurants and the most popular types of fast-food were reported to be hamburgers, pizzas, tacos, and fried chicken (GAIN 2016).

Being able to eat fast food is a sign that a family has middle or upper class status in Guatemala. Many of the boys who lived in rural areas confirmed that they had never eaten at such restaurants because *'Poor people don't have money for this type of food'*, but admitted to being envious of people who did. In discussing the Pollo Campero restaurant in Chisec, Alta Verapaz, the boys in one workshop agreed, *'When you see the people there, you say they have money, because if you are rich, you only eat tasty things'*. Caregivers spoke similarly of their ambitions, and as one mother concluded, *'We don't eat there because it is very expensive, but if we had money maybe we would be able to [laughs]. I would love to try it, it must be so tasty'*.

Adolescents emphasised that in terms of food choices, having quick energy was their priority to ensure they could complete their daily workload. Many confirmed their preference for *'fast'*, *'high energy'*, *'fashionable'* and *'filling'* foods. They chose food that gave them immediate energy and was related to their desired social identity.



16 year old girl participating in the photowalk activity and the photograph she took of a small fast food restaurant where she liked to eat, Chisec, Alta Verapaz.



'I like to eat the 'pollo dorado' [the golden, fried chicken].

Household food responsibilities and allocation



Drawing by 13 year old girl depicting her helping to prepare food, Cerro Azul, Alta Verapaz.

Gendered roles in terms of food sourcing, preparation and allocation were reflected by all adolescent participants. Although men were generally responsible for income generation, women would also earn money if necessary. As one caregiver from Cerro Azul, Alta Verapaz, explained, *'If the men of the household do not have work, the women also need to help him get resources to be able to feed his children. That is what I do when my husband does not have money, then it is I who looks for work to give food to my children'*. Whilst household funds were pooled, it was always the women and girls who bought food stuffs and prepared meals, and girls were expected to help their mothers from early adolescence (see drawings).

During a participatory workshop in Chisec, Alta Verapaz, a 17 year old girl described that girls in her household rise at six o'clock each morning to help start the cooking fire and make coffee. They then go to the mill to make dough to make tortillas (families have to pay to use the tortilla mill to mill their corn), and prepare breakfast for the family. A 14 year old girl from the same community agreed with these daily duties, *'First the mill, then the breakfast. Then we wash the breakfast plates, and then we go and seek food for lunch'*. As a mother from Chisec, Alta Verapaz, concluded, *'Because it is women who are in charge of the kitchen, we rule over all the food'*. Such gendered roles were also reflected by adolescent boys. As one 14 year old boy explained during a workshop in Chisec, Alta Verapaz, *'When I am old, I am going to find a wife, and then I will tell her that she makes me food... And if she does not know how to make food, she will have to learn'*.

Across the field sites, but more explicitly in rural areas, men and boys usually received larger portions and *'better'* food *'for strength'*, including *'special'* food that is not available to girls. In describing her drawing (below), an indigenous Q'eqchi' girl in Cerro Azul, Alta Verapaz, explained that when she and her mother had prepared the tortillas, they would first serve the men, and then they would eat. Discussing a similar scenario, an 11 year old girl in Xzetzizi, Chimaltenango explained that men ate first *'So they have strength to carry large packages on their backs'*. Even when girls were pregnant or breastfeeding, they would eat second and receive smaller portions of often less nutritious food, being given, for example, more tortillas, vegetables and Coca Cola instead of meat which, if it is available, is usually reserved for boys. Pregnant girls were also restricted by food (discussed further below).

To gain strength boys were reported to more consume more food but to supplement this with additional foods (when they could afford them) including coffee, sugar, soft drinks, alcohol and energy drinks. In rural areas, boys who worked on the land from an early age confirmed that they would purchase drinks to give them energy, such as *'Raptor'*, an energy drink high in sugar. Alcohol was also perceived as a drink for men and boys, to relax with after a long day's labour in the fields.



'This is my mother making chilli. My father eats first and my mother and I eat when we finish making tortillas.'
Drawing by 14 year old girl, Cerro Azul, Alta Verapaz.

Adolescent girls suggested it was unfair that boys received larger portions of better food whilst the girls had to also do heavy, albeit domestic, work. In a participatory workshop in Xetzizi, Chimaltenango, an 11 year old girl described how she often had to walk two hours in difficult mountainous terrain to fetch firewood for the household, and commented *'If we don't eat much, we also don't have strength to carry [the bundles of wood] we feel weak too'*.

Food classification

Participants used various mechanisms to classify food types and the health effects of consuming different foods. Across all research sites and regardless of ethnicity, adolescent and adult participants made a distinction between *'good'* and *'bad'* food. Food from the *'tierra'* (earth) was seen to be *'natural'*, and thus was good for health. Food purchased from shops and food that was not prepared by *'mothers at home'* was not seen to be *'natural'* and was therefore unhealthy. Often food from shops and fast food restaurants was perceived to be *'chemical'* yet was still attractive to adolescents, linked as it was to social status. Various foodstuffs were classified as *'chemical food'* including energy drinks, fried chicken that was not prepared at home, frozen chicken sold in shops, all canned food and, particularly relevant for adolescents, snacks sold in colourful packaging, soft drinks, candy and junk food (*'comida chatarra'*).

Indigenous participants also made a distinction between *'hot'* and *'cold'* food groups when describing recommended food consumption practices. In Xetzizi, Chimaltenango, for example, where the majority of participants self-identified as indigenous Kaqchikel, food was classified as *'comida caliente'* (hot food) and *'comida frio'* (cold food). An excess of cold food was believed to cause ill health because it was believed that foods with innately cold qualities must be warmed *'for the stomach'* before ingestion in order to have a positive effect (Manderson, 1987; Walter and Hawkins, 2007). Hot food could be good as it could *'heat up'* the body, but was seen to be risky if an individual was already perceived to be *'hot'*, for example, pregnant women, menstruating women, angry or drunk people (Wilson 1964). The ideal was to maintain a perfect balance between hot and cold states (Walter and Hawkins 2007). Classifying food acted as a protection mechanism for pregnant and lactating women, for as a traditional midwife in Chimaltenango explained, *'[if they eat cold food], then their milk can become cold. When the cold milk of the mother reaches the child's little stomach than they cry and become infected. They will vomit and cry all night'*.

The hot / cold categorisation was also used by adolescents to classify *'new'* types of *'chemical'* food, such as frozen chicken and pre-packaged noodles (classified as *comida frio* even when cooked). Although participants perceived that *'eating chemicals'* was *'bad'*, many concluded that such food / soft drinks tasted *'good'*, and it was therefore *'difficult not to have them'*.



Counter of a small shop in Cerro Azul, Alta Verapaz.

3. Factors affecting adolescent nutrition

Guatemala has high rates of inequality and one of the most elevated rates of poverty in Latin America. Participants across the study identified poverty as a key barrier preventing adolescents from having a healthy and nutritious diet. Against this backdrop six interrelated themes were found to determine adolescents' access to adequate and healthy food: farming, land ownership and climate change; income generation; economic migration; access to education; violence and substance abuse; sexual and reproductive health.

Farming, land ownership and climate change

The majority of the adolescents participating in the study came from households engaged in small-scale subsistence farming or were involved with commercial farms. Land ownership was identified as a key cause of economic hardship across rural and urban, indigenous and non-indigenous families, which exposed communities to shocks and stresses. Not owning land meant having to either rent land or sell one's own labour to cultivate the farmland of others, and many were forced to seek livelihood opportunities outside the agricultural sector to supplement the money they earned as farmers. Land distribution remains highly inequitable in Guatemala. According to USAID, the largest 2.5% of farms occupy nearly 60% of agricultural land. Land rights are the source of continuous tension and social exclusion issues between the ladino land owning elite and indigenous communities who believe they have the right to own the land their ancestors were born on and cultivated. Land ownership is politically charged and as such, Guatemala still lacks basic land laws and much of the land has yet to be mapped (USAID 2016). Efforts to provide title deeds to land owners are ongoing (USAID 2016, Worldbank, 2016).

The insecurity of land tenure is a particular risk for indigenous Guatemalans. In both urban and rural areas of Alta Verapaz, for example, participants confirmed that they did not have access to their own land, having previously sold it during periods of economic stress. Farmers who rented land were also in a precarious position. They could only afford to rent small plots of land, usually to cultivate corn and beans for consumption, with no surplus crops to sell for profit. As one participant in Xzetzizi, Chimaltenango explained, *'We lose anyhow. Because we are renting, we pay upfront for the land, before we have even seen how the harvest is'*. In Xzetzizi, Chimaltenango a farmer could pay Quetzal 500 (approximately USD 68) to rent land as an individual, but as a representative from COCODE confirmed, *'They [farmers] don't plant much because the area does not give a great harvest. It just gives them 20-25 pounds of broccoli so*



"They are travelling to sell their broccoli on the market"

Photograph taken by 18 year old girl, Xzetzizi, Chimaltenango.

they can't break even'. Alternatively, farmers could pay Quetzal 300 (approximately USD 41) to rent from a large *'finca'*, commercial farm, that would provide a form of bonded labour to farmers. The company paid for seeds and fertiliser, and the farmer was given a percentage of the harvest's profit. The wives of farmers in Xzetzizi, Chimaltenango complained that if they wanted to eat the broccoli that grew in their *'backyards'*, they had to travel at least an hour to the market in Patzún to purchase the vegetable. The cost benefit of doing so was usually inadequate given the price of the vegetables in market and the expense the women faced in travelling to and from market.

To some degree, *'day workers'* (*'jornaleros'*) were more protected against a failed harvest than farmers who rented land, for, as one elderly farmer in Xzetzizi, Chimaltenango suggested, *'If the harvest does not give, then it is better to work as a 'jornalero' [day labourer] and plant seeds for the future that way'*. Still, *'day workers'* had little security. If a harvest was not plentiful there were less opportunities to work, and many were left without a means of income.

As an alternative to farming, a number of participating families in Chiquimula had invested in livestock. The following narrative between a 17 year old girl and her mother in Marasxco was representative.

Mother: *We have to buy the food, some beans, some eggs because we don't have food on the land. We don't have money. When there is no rain, there is no corn.*

Girl: *Sometimes there is no food. It makes me sad. Last time there was no food was last winter. We had to sell our pigs.*

Mother: *When we sell our pigs, we have buyers from the city. They know where to find us...*

Girl: *The worst time was when my father was in an accident [leaving him unable to work for several months], then there was nothing anymore.*

Mother: *We did not have a harvest, no rain, no corn, no animals for such a long time. The last years were bad. There was nothing to eat... We have to look for wood, firewood, to sell to people.*

Across all research sites, the effects of climate-related vulnerabilities were evident, but particularly in the more rural communities whose livelihoods were dependent on the land and where alternative income-generating activities were limited or non-existent. In both Alta Verapaz and Chimaltenango, participants attributed poor harvests (of corn, cardamom, coffee, broccoli and peas) to changing weather patterns related to climate change. Comparing recent harvests to the yield from ten years previously, older adolescent girls and boys and their caregivers in Alta Verapaz recalled that the harvests were better when they were young, and that food was more plentiful. A mother in Cerro Azul, Alta Verapaz, concluded, *'For the last five years it has been much warmer than before, the sun is brighter and it burns the corn'*. Similarly, in Xetzizi, Chimaltenango, older adolescent boys explained in their workshop, *'We sow beans for the next November, but when we sow the crops the snow falls, and when we are ready to harvest, the crops burn. The crops burn because they don't have water. This year, the bean harvest was very poor'*.

Poor harvests directly impacted the food security of communities. An adult farmer in Xetzizi, Chimaltenango confirmed, *'Last year the harvest did not give us anything from what we planted. And we did not have any work. Now, because of the rain, the beans and the broccoli are rotting'*. Direct access to farmed products was challenging if the harvest was poor and work opportunities were limited. As a result, households had less money but food prices increased. A mother of a 14 year old girl who participated in the study in Chisec, Alta Verapaz explained, *'Now with there being no water for the harvest, everything is more expensive. For example, tomatoes are expensive at the moment. They cost Quetzal 3 per pound [USD 0,40]. If you don't earn those Quetzals, you won't eat'*. With less opportunity to harvest fresh produce, adolescents confirmed they often resorted to purchasing cheap, unhealthy and processed foodstuffs such as canned goods and *fideos* (imported noodles). Such food scarcity and food insecurity was common across all rural communities. One 10 year old girl from Cerro Azul, Alta Verapaz, explained, *'Sometimes there is no food... we only drink water or coffee'*, whilst another 12 year old girl confirmed, *'Normally we eat chilli, pinol [a type of flour made from ground maize], our tortillas, and hot water... but there are days there is food and days there is not'*. A caregiver in the same fieldsite confirmed, *'At times there is nothing to eat because there is no work and no land. Sometimes there is nothing to eat, but you have to take care of the children, whether it just is some chillies with tortilla'*.

Water scarcity not only affected harvests, but also increased the burden of cooking and maintaining the household. This was most discussed by indigenous girls and women in rural areas. They reported having to walk longer distances to find firewood and source water. An older woman in Cerro Azul, Alta Verapaz, recounted, *'Ten years ago it was not like, that but now we don't have wood or water. The springs have dried up and now we have to purchase firewood'*. A female caregiver agreed,



'This [sadines] is what I have to buy when there is no food from the land'

Photograph taken by 15 year old girl, Cerro Azul, Alta Verapaz.

The water that comes from the communal water taps, that is the water we drink. But the water that comes from the air [rain] is what we use to wash our clothes. When there is not enough water we have to go to the water springs. It takes two hours to walk there. But we have to go more and more.

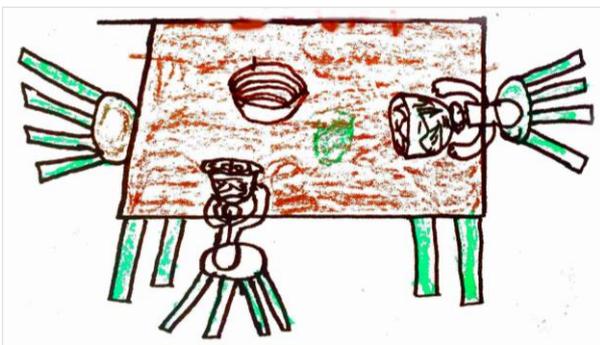
Income generation

Adolescents across the research sites confirmed that they often had to support their households by finding (informal) employment. During times of scarcity, participants would borrow money from neighbours or their community, or would seek to purchase food items on credit. An 11 year old girl in Chisec, Alta Verapaz whose mother had a small shop selling water and snacks recalled, *'People always want to have stuff on credit, and my mother always gives them the goods because she has a good heart, she gives credit, but they do not pay'*. Another girl explained that her mother had credit at a local shop, and when her father returned home from working as an agricultural labourer in another city, he would have to *'Hand in all the money he gained whilst he was away'* to settle their food bill.

Some adolescents took pride in their ability to contribute to household resources and as a 15 year old boy from Cerro Azul, Alta Verapaz emphasised, *'I am happy to help my mother with the food now. I am no longer a boy'*. In contrast, adult participants were more reflective and as father in the same field site explained, *'Not all families have land. Now we have families here who have six, seven, nine children, but they don't have an allotment. Therefore, they don't have money to let them study, so they [the children] go to find work, in the heat of the sun, hot and sweat. That is so sad for us'*.

Girls would most often support their caregivers by working at home, doing household chores, including sourcing food, preparing meals and looking after younger siblings. Some girls assisted their mother with paid work, as in Chimaltenango City, where girls worked alongside their mothers at the recycling plant (see below), and in a few cases girls themselves had employment. In Chisec, Alta Verapaz, a shop owner noted *'Some girls are like domestic workers, they do a bit of work in a restaurant or washing clothes. They can sometimes get work washing clothes for around Quetzal 25 (around USD 3) for a big pile of clothes'*. In contrast, girls in Cerro Azul, Alta Verapaz, suggested that in a village setting, *'There is only work in the house'*. Yet, as highlighted above, girls would not receive additional or preferential food to provide the calories needed for hard physical household work.

In the rural field sites, many of the adolescent boy participants (both indigenous and ladino) worked as unpaid labourers to help their fathers on the farms, but some also reported doing paid work. Boys indicated that they started to contribute to the household income when they were *'strong enough'* to work outside the home, either on the land with their male relations, or being employed in the agriculture or construction sectors. Boys started work as young as ten or eleven years old, regardless of the legal working age. As a group of fathers in Chisec, Alta Verapaz, explained, *'If you are 15 years old, you officially can't go [to work], but younger people just borrow the documents from the older ones'*. There, adolescent boys tried to find paid work on the nearby palm oil plantations. In Chimaltenango, many of the boys who



Drawing by two 14 year old boys, Chimaltenango City.

participated in the workshops confirmed that they worked in the municipal recycling plants separating cardboard, paper, nylon and other recyclable materials from garbage. The image on the left was drawn by two 14 year old boys during their workshop in Chimaltenango City. The boys worked together at the recycling plant and the drawing depicts them eating lunch with the workers from the plant, as they did most days. They confirmed, *'Yes, it is heavy work, but we make around Quetzal 40 a day [USD 5.5] when we are there for around five hours'*.

As with girls, the food allocated to an adolescent boy was often not proportional to the hard physical labour they were engaged in on farms, plantations or recycling plants. Adolescents working on palm oil plantations in Alta Verapaz, for example, were not provided with meals by their employers and described bringing tortillas with chilli to work because they could not afford to purchase the hot lunches served by the small-scale restaurants on or near the plantation. They confirmed that they frequently bought snacks (*'They do not fill the stomach'*) or soft drinks (*'For strength'*) before they returned home at the end of the day to eat a larger meal. They complained that the food from the shops was expensive and unhealthy, as opposed to the *'natural'* food from the land they farmed.



Photograph taken by 16 year old girl, Cerro Azul, Alta Verapaz

It was also common for adolescent boys working in the agriculture sector in Xetzizi, Chimaltenango, to take their lunch to the field, usually *'portable'* food stuffs such as *'a couple of tortillas with some salt'* and chilli, sometimes with beans or cheese. If the farm was close to their home, a boy's mother or sister would bring a hot lunch (*'almuerzo'*) to the plot. If the boy was working alongside his father, he would also receive lunch, but if he was already cultivating his own plot and was unmarried, he had to fend for himself. Adolescent farm workers would often purchase *'Raptor'* or other energy drinks to increase their ability and physical stamina to work on the land.

In contrast, the working adolescents who participated in the workshops in Chimaltenango City, were often provided with lunch by their workplace, and discussed eating *'fideos'* (noodles) and meat with other adult employees. The provision of a midday meal at work was an important service as it was often the most nutritious meal that adolescents would eat in a day. They would usually consume the food with Coca Cola or another soft drink, emphasising again that such drinks gave them *'energy'*.

Economic migration

Across all field sites, participants from both ladino and indigenous communities confirmed that it was common for men and boys to leave their communities to seek employment opportunities elsewhere, often as a result of failed harvests. This finding is corroborated by other studies (see for example IFAD et al., 2017; FAO, 2014) which also report a strong correlation between climate change, economic challenges and migration.

Migration was seen to influence nutrition in multiple ways. For a young male adolescent migrant, moving away from home (and his wife or other female relatives) often meant not having access to healthy home-cooked food, but resorting to purchasing food *'On the go'*. With limited resources at their disposal, boys reported that the only food they could afford was cheap and easily accessible fast-food. Female relatives left at home had to manage the household budget whilst the main income generator was away. It was frequently reported that they ran out of money and had to resort to borrowing money or undertaking piecemeal work, on top of their hard household work. As one mother concluded, *'It is not just the men who work'*. Many girls confirmed that when their husbands, fathers, or sometimes brothers *'Stay away for long, then we do not have anything to eat'*.

There were striking differences in the types of work men and boys from different areas were engaged in, and in the distance they had to travel to find employment. In Alta Verapaz, they were most likely to be engaged in unskilled labour on palm oil plantations, working under hard conditions to earn Quetzal 40-60 per day (USD 5.50-8.00) as a *'jornalero'* (day labourer). Some travelled further to neighbouring departments to find employment, leaving their families for weeks at a time to work on banana farms (in Petén and Escuintla) or sugarcane plantations (in Escuintla). Many dreamt of migrating to the United States

in order to *'find a better life'*, but as one participant concluded, *'We would love to go to the United States, but we are too poor to even pay for the coyote [human trafficker]'*.⁹

In Marasxco, participants reported that men and boys would often work in the construction or transport industry as unskilled workers. Many moved to the coastal provinces to work on the fruit plantations, and whilst international migration was not common amongst the family members of participants, some had migrated to El Salvador or Honduras. One 18 year old girl in Chiquimula explained that her husband worked in Honduras but had to pay for his own board and lodging and transport there and back. She concluded, *'When my husband goes to look for work in Honduras, I borrow money for food for me and the baby. When he comes back he gives it to me. I can't really say here comes our money, because there is nothing left after that [paying off the debts]'*.

Participants in Chimaltenango also confirmed that it was challenging to find a stable income in the department. Those who did find work were often employed as day workers in the construction, transport or mechanics sector, earning a minimal wage. Domestic migration was common, either to Guatemala City or to Escuintla to work on the coffee or banana plantations. In contrast to the other field sites, however, men from Chimaltenango department were increasingly moving to the United States as economic migrants. As a young man in Chimaltenango City highlighted, *'In the United States you gain dollars, whilst here money is not enough. There, you don't earn beans, you earn meat'*.



House being built with remittances sent by migrants in the United States, Xzetzizi, Chimaltenango.

In Xzetzizi, Chimaltenango, where farmland had become increasingly dry and barren, migration to the United States was also relatively common and remittances were a key component of the local economy. A girl who participated in the workshop in Xzetzizi explained that her father had moved to the United States eight years ago. He was employed as a waiter and sent remittances home on a monthly basis. She described his life *'Over the border'* as being *'Not easy'*, but noted that he had been able to build a *'Big house'* in Xzetzizi (see photograph), and her family were *'Able to afford to eat at Pollo Campero'* (a sign of prosperity, as discussed in the previous chapter).

It was unusual for women and girls to migrate for work. In Chimaltenango, a small number of participants reported cases of girls and women travelling to Guatemala City for employment as domestic workers or in restaurants, to help supplement their household's income. One participant suggested that, although it was rare, their move to the City resulted in some girls and women entering prostitution, *'There is one zone called 'colonia Q'eqchi' where there are many Q'eqchi'es working in prostitution'*.

Access to education

Across the field sites, adolescents of both age groups and genders discussed the importance of finishing primary school and ideally going on to secondary and tertiary education, *'For the future'*, and *'So we can work with clean clothes in the city'*. Caregivers also aspired to have their children complete school, and many positioned education as a protective factor for adolescents, in terms of protecting them from a *'Hard life'* and as a way of improving their life trajectories. A father in Cerro Azul, Alta Verapaz, who was a subsistence farmer explained, *'It is important that they are prepared for the future. What we want is that they are doing better. That they have better knowledge, that they can get a good job. Not like us. We did not study, and now we work on the mountain'*. Many of the caregivers involved in the study were illiterate

⁹ *'Coyotes'* are human traffickers who, according to respondents in Chimaltenango, charge USD 1000 to facilitate border crossings between Mexico and the United States.

and did not want their children to be *'tonto'* (stupid). As one father indicated proudly, *'I never went to school, but my children are going and know how to read a bit'*. Caregivers also made a direct link between education, employment opportunities and the potential to earn a good income. A mother in Chisec, Alta Verapaz, suggested, *'I think it is important that an adolescent completes at least the third grade of primary school. It is important that they go and find a professional career'*, whilst another responded, *'It is most important that they study, so that they have money to be able to help us'*.

Although the value of education was well recognised by participants, indigenous adolescents and those residing in rural areas suggested that it was common for their age group to stop attending school so they could work in the house or on the farm. Some of the younger adolescents (aged 10-14 years) engaged in the study attended school, but most older adolescent participants (aged 15-19 years) had dropped out of school after graduating from the third grade of primary school. Many participants highlighted that to attend secondary school required money for transport (as most often, schools were not located close to their homes), school fees, books and other school materials, all of which were deterrents to attendance. As one teacher in Cerro Azul explained, *'Many children stop studying because they do not have money to buy shoes, and they are asked for them when they go to school. It is this help that our children need, because their fathers can't find work'*. Older adolescent girls in Cerro Azul, Alta Verapaz, described being sad and disappointed that they no longer attended secondary school, and as one 17 year old girl concluded, *'I would have liked to become a lawyer but now... not anymore'*.

With limited economic resources, caregivers often had to choose which child or children to send to school and a boy's education was usually prioritised over a girl's. A mother in Cerro Azul, Alta Verapaz suggested, *'Many girls only finish the sixth grade of primary school and then the money has run out. There they wait until they become 18 years old and then they get married'*. A community leader in Chisec, Alta Verapaz, confirmed, *'Well, with the adolescent girls, we have not succeeded in educating them'*, and an adolescent girl from the same community who had recently left school during the fifth grade of primary school concluded, *'We are already lost'*. It was well accepted that adolescent girls, particularly older girls, would leave school to help shoulder the burden of housework.



'This is me, chopping corn'. Drawing by 14 year old boy, Cerro Azul, Alta Verapaz.

Although many adolescents left school to support their household, either in terms of housework (girls) or to seek paid work (boys) rates of unemployment were high.¹⁰ As the mother of one adolescent boy in Cerro Azul, Alta Verapaz explained, *'He goes to seek work. He has graduated, but now there is no work... So he just works on the mountain, just planting corn...'*. An 18 year old boy in Xetzizi agreed, *'All you can do is plant corn, because there is no work whatsoever'*. Most adolescents who participated in the workshops *'dreamt'* of going to university and obtaining a degree so they could *'Work in an office with clean clothes'* (10-14 year old boys workshop, Cerro Azul, Alta Verapaz) or *'Find work preparing food for customers'* (15-19 year old girls workshop, Chisec, Alta Verapaz), but accepted that it was unlikely they would ever attend tertiary education.



'The boys go to school, but not me...'

Boys at school drinking the Incarparina they receive as part of their school lunch. Photograph taken by 16 year old girl, Xetzizi, Chimaltenango.

¹⁰ In discussing unemployment, participants used the male version of the term, attributing a gender bias to unemployment which implied that it was boys who were liable to be unemployed, whilst the social norm was for girls to be engaged in housework.

Violence and subsistence abuse

In urban fieldsites, participants at all levels identified violence and subsistence abuse as key barriers to a safe and healthy adolescence. Adolescence was seen as a vulnerable period during which youth were susceptible to alcoholism drug abuse and both gang-related and gender-based violence. Because of their socio-economic situation and geographic location, urban adolescents reported that they were at risk of being recruited into street gangs. In a workshop in Chimaltenango, a 15 year old boy concluded, *'Adolescents are tired because of violence'*.

In Chimaltenango, the largest city included in the study, gang violence was common. Many caregivers raised concerns that their adolescent children (both boys and girls) may be pulled into criminal organisations such as 'Mara Salvatrucha' that was active in the city and seen to be *'A real threat'* for adolescents.¹¹ Adolescent participants agreed their age group was at particular risk of becoming recruited into such gangs. One 16 year old boy asked, *'What else will you do [except join a gang] when you don't have something to do [i.e. have job]'*, and another 15 year old boy confirmed *'At least you will have money to eat'*. A female caregiver spoke for many when she explained,

It is not like before. Now I cry a lot for my children. It was better being a child 20 years ago when there was more work. Now, if you as a parent do not take care of your children, they can become part of the Maras or such a group. Parents don't know who their children are spending time with on the streets. It is scary.

Once recruited into a gang, adolescents could be quickly entangled in criminal activities, and in having to adhere to group rules, could not extricate themselves. Still, for some, the promise of material benefits was attractive. Being part of such an organisation could result in economic prosperity (and hence the availability of more food), and this was prioritised over risks to personal health and safety. A participant in her late twenties whose 10 year old daughter participated in a workshop recounted,

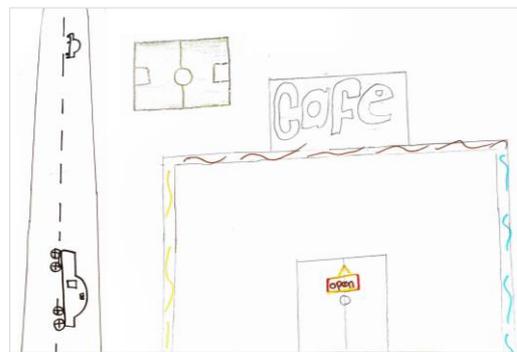
Because there is no work, they [adolescents] take the wrong road. Because you can't find money, but you need some stuff, like clothes and food or something else. Because of that, because of not having work, they take the wrong steps. I had a friend when I was single and worked. I asked her, why are you going astray? She said, 'because on this evil path [meaning gang affiliation], there is money to be made. Here, I can easily dress myself. I can eat. The only thing you have to do is take away the fear'. She killed people to be in the gang. She had to be with [have intercourse with] 25 men to be in the group. What she wanted was an easy job. But still now she sneaks out at night to steal for the gang.

Subsistence abuse was highlighted as a factor preventing the healthy development of adolescents, particularly older boys in urban centres. Alcohol or drug (use was often reported by urban boys as a way to escape their daily struggles (*'To forget'*) or as a substitute for food, *'It fills us up when we don't have food'*). Caregivers across all urban fieldsites suggested that alcoholism was a significant problem, and that boys began drinking at a young age, often reflecting the drinking patterns of older males. They made a direct link between alcoholism and child protection issues, and several adult participants asserted that substance or alcohol addictions could cause parents to neglect the nutritional needs of their children.

Violence against women and sexual violence was also prevalent and perpetrators not often held accountable (UNWOMEN 2017). The national Human Rights Office reports that thousands of girls are sexually abused each year in Guatemala, and that 89% of abusers are relatives, and 30% of those are parents (Guttmacher Institute 2014a; 2014b). After El Salvador, Guatemala has the highest rate of femicide, or gender-motivated killing of women, globally. In their workshop in Xetzizi, Chimaltenango, girls (aged 10-14 years) expressed fear about *'Walking alone'* because they had heard reports that *'In other places [i.e. Chimaltenango City] they hurt girls walking alone'*. As a result of the violence in Chimaltenango City, girls reported often having their mobility severely restricted, partly to lower the risk that they may be

¹¹ Mara Salvatrucha is an international criminal gang that originated in Los Angeles, California, US in the 1980s. The gang later spread to many parts of Guatemala, and is active in urban and suburban areas.

abused. Participants in one workshop in Chimaltenango City agreed with one girl who asserted, 'I can't go out to other areas. My parents would be scared for me'. Girls residing in urban centres confirmed that because of their restricted movements, they spent much of their time inside their own 'colonias' (gated communities) and in their home watching 'telenovelas' (soap series) or on their mobile phones (discussed further below). By avoiding risk and outside violence, urban adolescents had difficulty participating in exercise and often reported high levels of sedentariness (a finding echoed by Venator and Reeves, 2015).



'There are places where it is not safe for a girl to go at night'. Drawing by 17 year old girl, Chimaltenango City.

Sexual and reproductive health

Adolescents, particularly indigenous girls, had very limited access to sexual and reproductive health information and services. According to the 2015 Demographic Health Survey (DHS), 52.8% of indigenous women of reproductive age use contraception, compared to 68% of non-indigenous women (MSPAS, INE, ICF International, 2017). Pre-marital relations between adolescents are 'taboo' in Guatemalan society. From an early age, girls were taught by their mothers that virginity was one of their most important virtues. Social perceptions about 'saving oneself for marriage' were dominant and linked to the strong moral influence of the church. A pastor from an Evangelical church in Xzetzizi, Chimaltenango explained,

The church is first place that we will teach them [adolescents] that the bible does not permit such things... As a church we believe two things. If a young person uses those [contraception] and they are not yet married, they commit fornication, right? If a family uses it, there is another problem, adultery... So we basically only use it when you are in couple, a legal couple, when you are married. But a young person that is not married, the church and the bible have taught us that [pre-marital sex and contraception use] is not allowed...'

Guatemala has one of the highest teenage pregnancy rates in Latin America with one in five adolescents between 15-19 years having borne a child (MSPAS, INE, ICF International, 2017). According to the 2015 DHS, indigenous girls are younger at the time of their first pregnancy than non-indigenous girls, and 45% of all girls that fall pregnant between the ages of 15-19 years have never been to school (MSPAS, INE, ICF International, 2017). In 2017, the Sexual and Reproductive Health Observatory (*Observatorio en Salud Sexual y Reproductiva*) concluded that girls under 15 years old are five times more likely to die in childbirth than women over 20 years old.



'There is a secret place behind the football field where boys and girls meet'. Drawing by adolescent boys in workshop, Chisec, Alta Verapaz.

Stigma about the use of contraception, particularly by unmarried adolescents, is widespread and the rate of contraceptive use remains low. In the DHS, only 9.8% of adolescent girls aged 15-19 years reported using any form of protection and no data were gathered from adolescents younger than 15 years (MSPAS, INE, ICF International, 2017).

Yet, adolescents in the study frequently highlighted their increasing sexual desire and the pressure of finding a suitable marriage partner. Adolescent pregnancy and early marriage were common across the research sites, and in indigenous communities, motherhood was regarded as a positive pathway for girls. As boys in Cerro Azul, Alta Verapaz, indicated, 'Girls will become mothers when they grow up', and girls confirmed, 'That is how it goes. You become a mother, that is the goal'. This narrative was frequently reiterated by caregivers and other influencers (discussed further below).

Participants highlighted that not being 'allowed' to have sexual relations was a primary driver for early marriage. A 14 year old boy in Cerro Azul, Alta Verapaz, explained, 'That is why they [adolescent boys] seek a wife', and as one community leader in Xzetzizi concluded,

I believe that young people want to marry to be able to have eh... to 'enjoy themselves'. When we discuss that they have to get married to have sex, young people give that as the reason, to be honest. One young person said to me, 'I married because I am a man, and as a man you want to have sex' and so on....

After marriage, the use of contraception may be more accepted amongst women, but their preference was for 'natural methods'. According to adult participants, most women in rural communities tried to plan pregnancy through abstinence, applying the rhythm method, or having their partner withdraw. As one woman in Xzetzizi, Chimaltenango, recounted, 'There are those women, like me, who are not planning pregnancies, but then, bam, you are pregnant again. I've talked with various women and they tell me that they have got pregnant even if they weren't planning it'. Rumours about contraception circulated, particularly amongst indigenous women in rural areas, that questioned the effectiveness of different methods and suggested that contraceptive injections and pills could have negative effects on women's health. As one caregiver concluded, 'It is better for your health to have children and not have injections. That is what they told me in the hospital. It is not the will of God that you inject yourself. It is God's will that women get pregnant, so there is no point'.

Sexual and reproductive health (SRH) education is not often taught in schools and information was lacking, particularly in rural areas where stigma attached to using contraception may have been stronger. A primary health worker in Xzetzizi, Chimaltenango, confirmed that it was difficult for health workers to 'Speak out against' the culture of not using contraception.

The population is not open to the idea [of SRH]. Sometimes there are issues with the family because the children [adolescents] come to investigate [about contraception], and sometimes there are diseases [sexually transmitted infections] that the children come to tell us about [seek treatment for]. But then the fathers of the family get angry because you are giving it [information, contraceptives, treatment] to the children, or because they say that we influenced the children [into having sexual relations].

Caregivers did not feel equipped or inclined to discuss sexual and reproductive health issues with their adolescents, and many confirmed that they repeated narratives about virginity and abstinence as promoted by the church. When asked what kind of advice they passed onto their children, mothers in Xzetzizi, Chimaltenango forwarded only broad and general statements such as 'You have to take care of yourself' or, 'It is better to enjoy your youth'.



'My parents don't know'

In discussing sexual and reproductive health, adolescent girls who participated in Xzetzizi, Chimaltenango, highlighted that even if they did not have boyfriends, they were sufficiently mature to make decisions about their own lives. They did not always equate having a boyfriend to being 'bad' or 'taking the wrong road'. During the workshops, many of the girls expressed frustration with their caregivers. As one girl conclude, 'I don't understand why they don't let me be', and another, who kept her mobile phone hidden from her parents confirmed, 'It is unfair that they don't trust us'. Adolescent boys indicated that they faced fewer restrictions than girls and, when they were older, were actively encouraged to find a sexual partner and eventually to marry. Having multiple sexual partners was reported to be a source of pride for older adolescent boys, part of their machismo culture, whilst girls were expected to only have one sexual partner, their husband.

Photograph of her 'secret' phone, taken by a 19 year old girl, Xzetzizi, Chimaltenango.

Even when girls and women were informed about their reproductive health, they often did not have agency to protect themselves and participants reported that many of their male partners refused to give them 'permission' to use contraception. According to the Guttmacher Institute (2014a), 63% of married women aged 15-19 years old reported that they had to ask their husbands for permission to use contraception. There was a dominant perception, particularly in indigenous communities, that men were socially required to have many children and that this was a sign of their prowess. In recounting discussions with adolescent boys during Sunday school, a pastor in Xzetzizi, Chimaltenango, explained,

I ask them why they want to get married, and the adolescent boys tell me, 'Because I am a man'. They tell me how many children they want to have but they don't think it through seriously. Because the bible says that you have to fill the earth with children, doesn't mean that you have to. I tell them that God has not told us to have 13 children. It is not a shame not having children, or having few children. It is more of a shame to have children that you cannot even buy food for. That is shameful.

Indigenous adolescent girls who were pregnant or had children confirmed that they did not necessarily have more or 'special' food during pregnancy, and several reported that they still had to eat after the men in their household were replete. Their household tasks did not diminish during pregnancy, and particularly girls in rural areas reported continuing hard physical work until late in their third trimester.



Adolescent boys participating in the photowalk activity, Cerro Azul, Alta Verapaz.

4. Engaging adolescents

The UN Convention on the Rights of the Child, ratified by Guatemala in 1990, emphasises that children and adolescents have the right to participate in decisions affecting their health and wellbeing. One of the guiding principles of the Convention is that child and adolescent views should be voiced, respected, and utilised effectively to enrich decision-making processes.

Engaging adolescents is key to the full realisation of this fundamental right, yet adolescent voices are not often (if at all) incorporated in the evidence-base used to shape policy and programming. Engaging adolescents requires a commitment to user-focused design so that interventions respond to their needs and priorities, are contextually relevant, and utilise a range of the most appropriate engagement and communication channels for reaching adolescents girls and boys over time.

By emphasising a systems-based approach to adolescent programming, where adolescents are seen as an integral part of the social fabric of their communities, this chapter presents data on key adolescent influencers, appropriate media channels for reaching adolescents, and local structures that can be utilised for direct engagement with adolescents, their families, and their communities.

Analysis is underpinned by the social ecological model (SEM), that places the individual (i.e. the adolescent) at the core, surrounded by nested levels of interpersonal, community, organisational and policy-level influence that represent the multifaceted and interactive effects of personal and environmental factors determining behaviours (UNICEF 2014, CDC 2015). Interrogating the power dynamics between adolescents and their environment can lead not only to greater engagement for nutrition-specific and nutrition-sensitive programming, but also support effective cross-sectoral programming (e.g. linking health, education, SRH etc.).

The first section of this chapter explores the key influencers of adolescents. The second section triangulates results from the technology survey and the workshops to report the various technology platforms adolescents engage with. The third section details findings from the landscape analysis of national delivery channels reaching adolescents, and presents the channels adolescents preferred and prioritised and their key recommendations on how to best operationalise these.

Influencers of adolescents

As Aubel (2012) concludes, *'Most policies, research and programmes on child nutrition in non-Western societies focus narrowly on the mother-child dyad and fail to consider the wider household and community environments in which other actors, hierarchical patterns of authority and informal communication networks operate and influence such practices'*. This also holds true for adolescent programming. It is critical that the various actors who influence adolescents, are better understood. During the participatory workshops, adolescents were asked to identify the people they spend time with and where, how they get advice and information, and who they trust. In their consideration of who and what influences them, and in what ways, adolescents were articulate about the level of agency and self-determination their age group had in different contexts. In terms of key influencers, the following groups emerged: caregivers; other family members including siblings, and for married girls, their husband and husband's family; peers; church; health workers; community leaders; teachers; and landowners. There were, however, significant differences in the profiles of influencers identified by adolescents in indigenous and ladino, urban and rural communities, as discussed below.

Caregivers and other family members

Caregivers, primarily parents, were regarded as adolescents' main gatekeepers and influencers, and could be both positive enablers, and/or restrictive forces depending on the relationship and context. Older adolescent girls (15-19 years old) in Chisec, Alta Verapaz, indicated that their parents were the most trusted sources of information they had access to. Younger adolescents from Chimaltenango City, also indicated that they trusted the advice of their parents over the advice of their friends. Half of the girls who participated in Chimaltenango lived at a church-run orphanage, either because they had lost both parents or because of child protection issues. Many of these girls confirmed that they '*Looked up to*' the caregivers who were based at the orphanage and who gave them pastoral care.

Although being well-trusted, caregivers were also seen to actively restrict the agency of adolescents, particularly girls. Mothers involved in the study indicated that they had more authority than their husbands over younger children, but during adolescence, influence became more gendered, with mothers playing a great role in advising daughters, and fathers advising sons. A mother in Cerro Azul, Alta Verapaz, suggested that when children are younger, '*It is us who are in charge of educating them and teaching them... You don't have others in the community that correct the young people*'.

Many adolescents identified older siblings, often those of the same sex, as being influential in their lives. Ladino girls in Chisec, Alta Verapaz, explained, for example, that they looked up to their older sisters studying in '*the city*'. Indigenous younger boys in Cerro Azul, also indicated that they liked to spend time with their older brothers, but noted that their older brothers did not often have time to '*play*' with them due to work and other commitments. Indigenous boys and girls often mentioned spending time with their siblings whilst collecting firewood.

Married girls spoke about the changing sphere of influence they experienced after marriage, when their main influencers shifted from their caregivers to their husbands and in-laws. A girl's mother-in-law exerted particular influence on the behaviour of her daughter in law. If the girl moved to live in her husband's house, she was expected to help her mother-in-law with the household. If the newly married couple had sufficient financial resources establish their own household, the girl was expected to manage it and her interactions became focused on her husband and their children, local shop keepers, and eventually with her children's school teachers. Because of these limited social contacts, many of the younger adolescent girls involved in the research asserted that they were happy to not yet be married. Girls in a workshop in Cerro Azul, Alta Verapaz, agreed, '*When you have a husband it is even more work. He dirties his clothes, you clean them. And it is boring. You are just at home all the time and can't play with your friends*'.

Peers

Across all sites, it was clear that the sphere of influence around adolescents grew as they aged, and they began to turn more to their peers and other non-family members for advice and validation of their actions. Friends and peers became natural *confidants* with regards to particular issues adolescents could not discuss (or preferred not to discuss) with their caregivers for fear of reprisal. For example, openly discussing (potentially) sexual relationships with older generations was seen to be socially unacceptable, and adolescents were more likely to confide in their peers. This was particularly true for girls who feared having their already limited mobility further curtailed if they admitted to being interested in boys, love or sexual relationships. In contrast, adolescent boys quickly assumed pride in projecting a '*machisto*' image, but still discussed their relationships with their peers rather than adults.¹² Given the limited information available about sexual and reproductive health issues (as discussed above), an adolescent's immediate friendship group was often the only way to source knowledge and share feelings and experiences, both positive and negative.

¹² As discussed above, in Guatemala, as in many Latin American cultures and elsewhere, a boy with many girlfriends is perceived to be 'strong' and 'virial', whilst a girl with many boyfriends is considered a 'slut' (following Olthoff 2006; Arends and Hordijk 2015).



'Here I go with my mother'



'This is where I buy the snacks'



'The health center'



'Football field'



'There is free WiFi in this park'



'We sing in church'

Photographs taken by adolescent girls and boys during photowalk activities in Chisec and Cerro Azul, Alta Verapaz, and in Xzetzizi, Chimaltenango

Despite this, girls acknowledged that sharing personal information with peers could also be risky. As one girl explained, *'Telling friends your secrets means they can be found in the mouths of others... or they just make stuff up and then they can look at you badly'*. Adolescent girls also indicated that not all advice from friends was trustworthy. In discussing potential peer pressure, an 18 year old girl in Chimaltenango City suggested, *'Many times when you tell your friends something, they advise you wrongly... They say that they take alcohol to forget their problems, but it not like that... Well you forget your problems for a while, but afterwards they come back and so they don't help us always'*. Whilst the pressure to join gangs was discussed in Chimaltenango City, adolescents in Chisec, Alta Verapaz, also concluded that older peers could *'Seduce an adolescent to take the wrong road, to drink alcohol and smoke, all sorts of things'*. This type of negative peer pressure was not directly reported in the rural areas included in the research.

During the photography and drawing sessions as part of the participatory workshops, adolescents documented activities they would do, alone and with friends, and places they liked to go. Adolescents who were in education routinely met their peers at school, whilst those who did not attend interacted with friends in different community settings. As adolescent boys faced less restrictions, they would more



Drawing made by group of 10-14 year old girls depicting activities they do and places they go, Cerro Azul, Alta Verapaz.

frequently meet peers in the community than girls. Both older and younger boys in rural and urban areas discussed meeting friends after work or school, particularly to play football. Indigenous boys in rural areas reported meeting friends at local shops where they would watch television together, whilst urban ladino boys would meet friends in public parks or at landmarks (such as the park in front of the main municipality building in Chisec, Alta Verapaz), or simply 'On the street'.

Many of the older indigenous adolescent girls admitted that having left school, their friendship group had reduced. Some felt that they no longer

had any friends their own age, and given their heavy load of housework, had limited time and reason to meet others outside their household or immediate community. A 17 year old girl from Xzetzizi, Chimaltenango, explained, 'We wash clothes at our houses and in the river. There are more people there, but they are not friends. We just finish what we have to do and then go home'. In discussing this smaller social space, mothers often confirmed that they purposively kept their girls busy at home, so they 'Would not seek problems'. Other girls reported that whilst they still had a good network of friends, they had limited time to interact. One 16 year old girl from Xzetzizi, Chimaltenango, explained, 'I have friends... but no time to visit them. We meet each other when we are going to church'. Church youth groups were considered to be a safe space and was an important location for many girls (discussed below). Adolescent girls in rural areas also suggested that they would read books or do handicrafts such as embroidery or sewing patterns on traditional 'huipiles' (blouses) to pass the time and/or earn a little income. Younger indigenous girls in rural areas also met to play football after completing their household tasks.

Adolescent ladino and indigenous girls applied various strategies to stay in touch with friends. Girls in urban areas were more likely to use social media, and with their mobility severely restricted due to safety concerns, would use applications including Facebook and WhatsApp to 'chat' with each other, although their internet usage was often closely monitored by caregivers. Social media was not option for adolescents living in rural areas. Indigenous adolescents in rural areas reported that they did not often have access to a mobile phone, and some areas had poor network coverage (discussed further below).

Church

The church continues to play a significant role in the lives of adolescents in Guatemala. It is easily accessible, socially acceptable, and exerts a great degree of influence, particularly on the lives of adolescent girls. In rural areas, church-based youth activities were one of the few activities available to adolescents. All respondents involved in the study reported that they attended church at least once per week, either on Sunday or Saturday. Mothers in Chisec confirmed that whilst there were few other activities for their daughters to participate in, they went to church to 'Receive some advice, and have bible classes'. In discussing their interaction with church, many adolescent girls described their attendance as a welcome break from housework and watching television, their other main source of entertainment (discussed further below). Church was a place where they could meet their friends, and given that many of adolescent girls were not allowed to spend time in the community (due to social norms and to protect them from potentially risky situations), it was a safe space in which to observe other community members. As one girl's father in Cerro Azul, Alta Verapaz confirmed, 'That is where girls communicate, chat and get to know each other'. That a church was often located in close proximity to the homes of adolescents was an important factor as it meant it was easily accessible. In Cerro Azul, Alta Verapaz, for example, a community with no health centre and only three televisions in the entire village, there were four churches, one Catholic and three Evangelical. In the participatory workshops, when asked to draw the places they would go most often, or would like to go, many girls drew their church.



Compilation of drawings depicting the churches they attend, by 10-14 year old girls in Cerro Azul and Chisec, Alta Verapaz, and Chimaltenango City and Xzetzizi, Chimaltenango.

Across the field sites, it was reported that churches had developed effective strategies to attract adolescent girls and boys. They employed young leaders (usually a little older than the adolescents) to take Sunday school and youth classes, and sought to engage adolescents through music, dance, poems, theatre and sports activities. The Catholic church in Chisec, Alta Verapaz, for example, worked with *'pastorcitas'*, young female pastors, who were close in age and background to the adolescent girls that attended their classes. In the same community, an adolescent girl confirmed, *'I like to go to church to listen to them singing [religious songs of Santo Benito]. We find*

advice in the music, advice for us young people, about respect for our fathers, about how to take the 'right road'. The songs help me in life, I like to learn them and I am happy when I am able to sing them in church'. It was noted, however, that when adolescents got married, they were no longer invited to attend youth groups. Because they were then perceived to be adults, regardless of their age, they had to attend regular mass. Several of the girls who were already married indicated that whilst they missed their friends in the youth groups, they felt *'proud'* to be allowed to attend sessions with other (older) women.

In addition to conveying moral and spiritual teachings and guidance, other information was often passed to congregations at church, including informal health promotion advice. A number of religious leaders who were engaged in the study confirmed they would be willing and interested to pass on knowledge about nutrition to their congregations, providing they had been trained on the key messages. This could be an effective strategy as caregivers reported that they tried to implement and reinforce the messages conveyed at church at home. Teachings were reiterated in the household through bible readings and listening to Christian radio stations. As one father in Chimaltenango City asserted, *'I, as father of the family, have much to do with the education of my children, and in the first place the fear of God. Without God, men are nothing. It is very important that we teach the children about God. It is the father who has the responsibility to educate his children'*.

Health workers

In Chisec, Alta Verapaz, and Xzetzizi, Chimaltenango, older adolescents highlighted that health extension workers and health workers at the *'puestas de salud'* (rural health posts) provided health- and nutrition-related advice. In their participatory workshop, older boys in Chisec, Alta Verapaz (aged 15-19 years old) confirmed that they only went *'When we re sick, but not as often as the women go'*. They suggested that health workers told them about various diseases like dengue and chikungunya, and told them to *'Eat healthy food with not much fat, just fruits and vegetables'* (a statement that was met with laughter in the workshop).

Health information was conveyed during ante-natal checks, and mothers confirmed that they received advice on how to prepare for childbirth, what kind of food to eat whilst they were pregnant, how to care for their children and what kind of food to give them. One mother in Chisec, Alta Verapaz, suggested that eating a lot of food during pregnancy was beneficial, *'When someone stays very thin, the baby will also be very thin, and if the mother is big, the baby will also be big'*. Another mother from Chisec, Alta Verapaz, recounted that health workers had taught her *'How to care for my children, how to feed them with yuka and papaya'*, whilst a community leader from the same area,

Health workers told us that it is not good to give children snacks, that anything they sell in the shops is bad and we should only give them what we find in the market. They told us that it is not good to hit children when they don't eat, because their bodies are weak and they can start to get sick or be 'underfed'.

In Chisec, Alta Verapaz, women engaged in the study reported that health workers also advised them not to drink the soft drinks that were so popular in their communities, *'The drinks are prohibited according to the health centre. The health workers say that these drinks, like Super Cola, do not have any nutrition, that we have to eat vegetables, watermelon, apples, mangoes and all of that...'*. Indigenous girls who were pregnant or had children also identified *'comadronas'* (traditional midwives) as key influences.

In Chisec, Alta Verapaz, and Xetzizi, Chimaltenango, younger girls who had not been through ante-natal care did not identify health workers (or traditional midwives) as influencers or source of information, and did not discuss attending health facilities. Younger girls suggested that they only engaged with health centres when they had a particular need but not for preventative care or health advice. Many were reticent about seeking healthcare given the risk that their attendance would be linked to sexual and reproductive health advice. Even when adolescents and young women were pregnant, many still did not present at health facilities. As one 21 year old girl in Xetzizi, Chimaltenango, who was pregnant with her first child confirmed, *'I have not been to the health centre, and nobody has told me when this [pointing to her visible bump] will come out'*.

The most recent DHS reported that of women aged 15-49 years who had given birth in the previous five years, 86% has visited health centres for ANC services more than four times during their pregnancy, and only 3.3% had never attended such sessions. There were only slight differences in attendance between urban and rural areas, with 88.7% of women in urban areas and 84.6% of women in rural areas completing four ANC sessions, although women in urban areas tended to attend earlier in their pregnancy (MSPAS, INE, ICF International, 2017).

Community leaders

Across all field sites, but particularly in the rural, indigenous communities, adolescents highlighted the power and influence of community leaders. More often than not, community leaders were seen to represent the community and act as mediators in times of conflict, as well as being a source of information. They were not necessarily regarded as strong advocates for youth issues, however.

The COCODE in each area included in the study was identified as being influential. Particularly in rural communities with limited communication mechanisms, the COCODE was key in organising community meetings and conveying civic information. The president of the COCODE in one fieldsite explained that to call a meeting, he would *'Walk around the community using a loudspeaker and in less than twenty minutes they are all in the town hall. If the women leader does it, then in less than thirty minutes they are all here'*. Adolescents highlighted that youth leaders had yet to be appointed to the COCODE.

Adult participants saw an important role for community leaders in terms of supporting adolescents to have healthier and more nutritious diets. Caregivers in Chisec, Alta Verapaz, explained that many community members wanted the COCODE to prohibit shops from selling *'bad food'* to adolescents. As one mother concluded, *'We can't send our children to the shops [because of the bad food on sale], and that is not good. But for the people who have the shops, it is work for them, we can't tell them to stop. It is the COCODE who have to stop them selling bad stuff'*. Only one participant, a well-educated community leader in Chisec, indicated that legal frameworks had a protective effect on adolescent well-being. She referred to national child protection measures that *'Prevented people from hitting children'*, but did not discuss how community leaders could contribute to the enforcement of such legislation.

In contrast to their caregivers, only a small number of adolescents referred to community leaders as key influences. The level of direct interaction community leaders had with adolescents in their catchment area, was heavily dependent on the personality and interest of the leader themselves. One male community leader from Chisec, Alta Verapaz, a keen football player, explained, *'I communicate with the boys. This year we had a football match and the boys are now satisfied. But the with the girls we are a bit behind'*. The boys in this community spoke with enthusiasm about this community leader (*'He is very fun'*). A female

community leader in Chisec saw the positive effect sports had on boys, but confirmed that it was more challenging to engage girls in sporting activities, particularly older girls, given the lack of time they had available after completing their household chores.

Teachers

In Cerro Azul, Alta Verapaz, Xzetzizi, Chimaltenango, and Chisec, Alta Verapaz, adolescents suggested that teachers were only influential figures for younger adolescents, given that most older adolescents no longer attended school. During the participatory photography exercise in Chisec, younger adolescent boys took photographs of their schools and in their discussions highlighted that their teachers *'Would teach us things about life'*. Younger adolescent girls in Cerro Azul, Alta Verapaz, also confirmed that teachers would educate them about *'Hygiene and what is good to eat and what is not'*. In Marasxco, Chiquimula, schools (and churches) were reported to provide basic health and nutrition information, but mainly at the primary school level. In Chimaltenango, girls who attended education sessions at El Tesoro Especial, a centre established to provide education to victims of abuse and supported by a United States church-based organisation, perceived the teachers at the centre to be a trusted source of influence.

Landowners

Because girls were rarely employed outside the home, the influence of landowners and employers was related specifically to adolescent boys. Caregivers reported that some small-scale farmer owners (often their family members or members of the same community) taught adolescents how to farm and work the land (*'Where to sow and where not to sow'*, *'How to stop fungus coming to the plants'*), and cascaded knowledge about food production. It was understood to be a task for older generations to teach adolescents how to *'Work on the earth'*, and such practical knowledge was well received and appreciated by adolescents. It was rare for owners of large-scale farms to directly convey such technical expertise to their adolescent employees, hiring them purely for their physical labour rather than to support skill development.

Media and communication landscape

According to Open Society Foundation, the media landscape in Guatemala is still 'underdeveloped' (Avila 2014). With limited electricity throughout the country, radio remains the only mass media that is readily available. Television is increasingly popular, although many households, particularly in rural areas, do not own a television, and people often watch television in communal spaces such as shops or restaurants (as described above, adolescents were drawn to purchase food and snacks from shops and restaurants to enable them to watch the television). The most recent DHS reported that 69% of the population watched television at least once per week (MSPAS, INE, ICF International, 2017). Over the past five years, over 25% of households acquired a television for the first time, and in households that do own a television, household viewing was reported to be up to seven hours per day (Avila, 2014). Owning a personal computer with internet access remains the privilege of a minority of the population, although smartphones are widely available and used in urban areas. Younger, urban-based mobile phone users are increasingly using them to access social networks, chat with friends and search for information (Avila, 2014). A recent study concluded that mobile phones have become 'indispensable' in Guatemala (IDS, 2017).

As part of the research, a technology survey was conducted with 82 adolescent and youth participants aged 10-25 years old (see Table 8 below). Of the survey respondents, 55% were female and 45% were male, and 85% were aged 10-19 years old. A greater number of boys reported to use the internet more frequently than girls, but girls had better access to radio, television and mobile phones (see Table 9 below). Boys would access the internet in public hotspots including *'cabinas publicas'* (public internet cafés) or public

Table 8: Demographics of the adolescent and youth survey respondents

Demographic		% of participants (n=82)
Gender	Male	55
	Female	45
Ethnicity	Q'eqchi	45
	Ladino	18
	Indigenous	22
	Kaqchikel	13
	No response	2
Religion	Atheist	15
	Christian	22
	Evangelical	40
	Other	23
Marital status	Married	5
	Partner	7
	Unmarried	88
Children	Have children	7

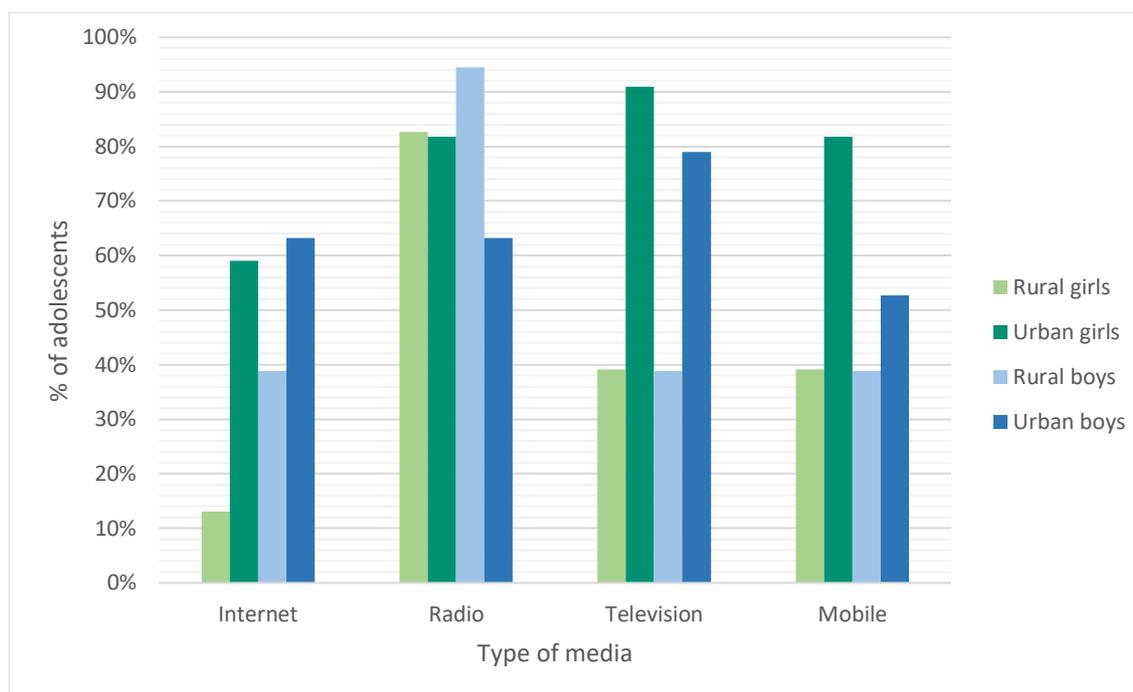
Table 9: Media and communication use by gender and age

Media used	Overall % (n=82)	Boys % (n=37)	Girls % (n=45)	10-16 years % (n=53)	17-23 years % (n=29)
Radio	81	78	82	89	66
Television	72	65	73	66	38
Internet	43	51	36	30	66
Mobile phone	54	46	67	49	72

Table 10: Media and communication use by location

Media used	Overall % (n=82)	Urban setting % (n=41)	Rural setting % (n=41)	Alta Verapaz % (n=42)	Chimaltenango % (n=40)
Radio	81	73	88	88	75
Television	72	85	59	46	93
Internet	43	61	24	17	70
Mobile phone	54	68	46	34	83

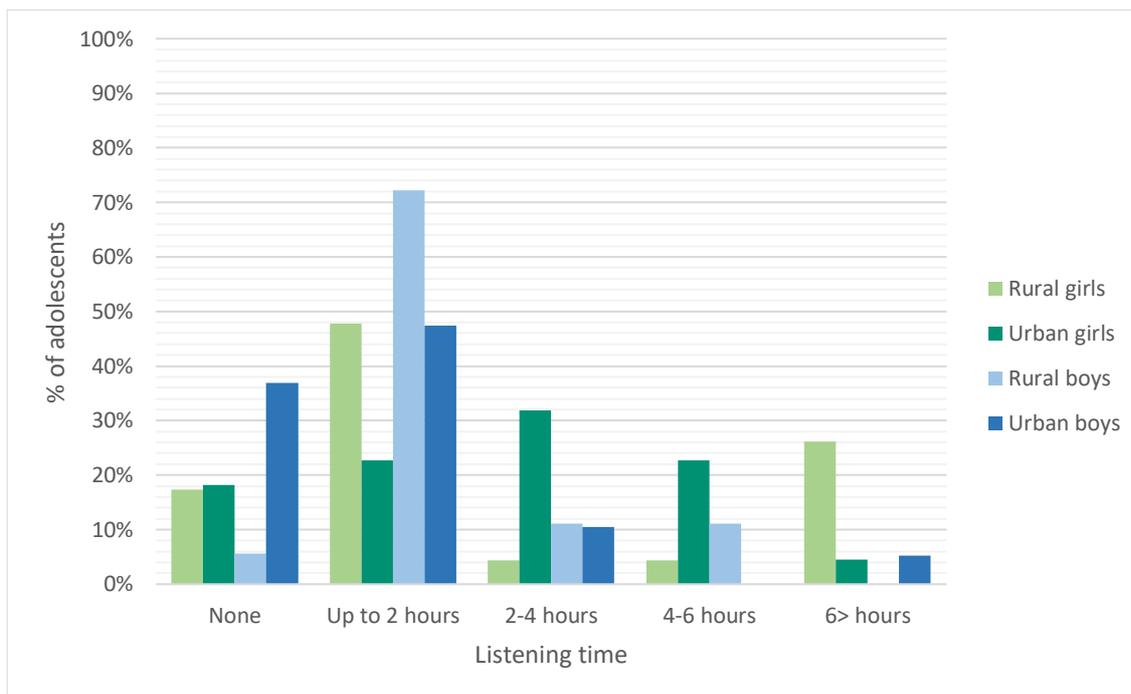
Graph 1: Media use by gender and location



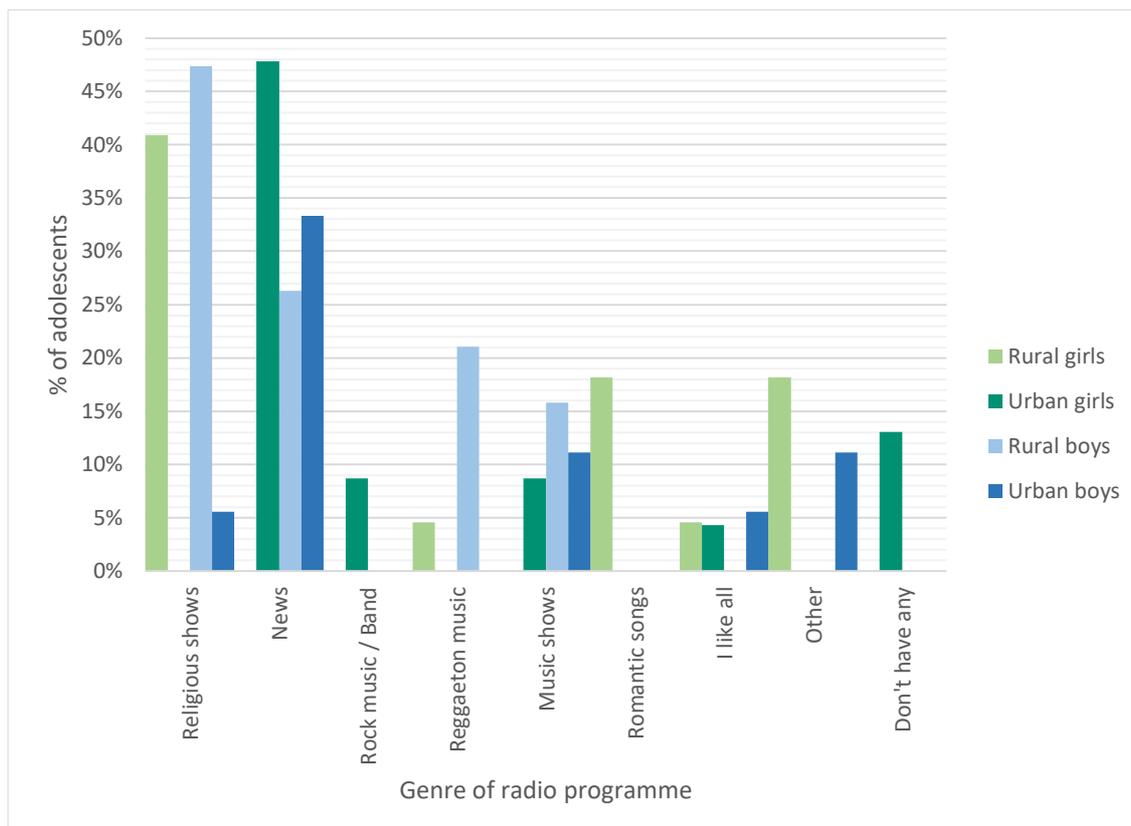
spaces, such as the park in Chisec that had public Wi-Fi. Girls were only able to access the internet on the mobile phones they (at times, secretly) had access to. Girls were often provided with phones so that their caregivers would know where they were and what they were doing every moment of the day. Girls were also better able to access other communication methods such as radio and television given their work in the household, whilst boys were often outside the home for long periods due to school or work commitments.

Radio

Graph 2: Radio usage per day by gender and location



Graph 3: Popular genres of radio programming by gender and location



Radio was widely available to adolescents, both boys and girl in both urban and rural settings (see Table 10). The majority of survey respondents reported listening to the radio. Of those, 50% (n=33) indicated that they would listen to the radio on a daily basis, and 24% (n=16) at least twice per week, with boys more likely to listen daily and girls every few days. Girls spend longer listening to the radio than boys, with 47% (n=21) of girls spending more than two hours per day listening to the radio, compared to 19% of boys (n=7) and 26% (n=6) of rural girls listened for over six hours per day. In contrast, a proportion of urban boys (37%, n=7) reported that they did not listen to any radio. The respondents who did not listen to the radio, suggested not doing so because they did not have access to a radio, found the programmes their parents preferred to listen to *'boring'*, and chose to listen to music on their phones instead.

Radio listeners would most often listen to the news on the station *Emisoras Noticias*, music (*'I like the rhythm, it makes me dance'*) on stations including *Alfa y Omega* and *Emisoras Unidos*, and religious channels such as *La Voz Católica* and *Radio San Benito*. According to workshop participants, adolescents listened to the radio to keep up-to-date with political developments in the country (both boys and girls) and the football scores (boys). They also source advice and information from radio programmes, *'Because they give advice about life, they share experiences and entertain the listeners'*.

Adolescents reported listening to the radio alone (mostly girls), with their caregivers and other family members (both girls and boys), or with their workmates (boys). Girls were more likely to listen during the day, at home, whilst boys would listen in the early morning or late afternoon (i.e. before or after work). In rural areas, adolescents emphasised the influence of community radio stations and confirmed that they listened because of their focus on issues that were locally significant and of direct relevance to their lives, and because they were transmitted in local languages.¹³ As the Open Societies Foundation concluded in their 2014 report, *'Community and religious organisations are active in creating content in different languages, focused on local audiences'*. This view was echoed by a community radio presenter from Alta Verapaz who was engaged in the research. He concluded, *'The listeners like the jokes, the way I speak to them... in their own language'*.

Television/video

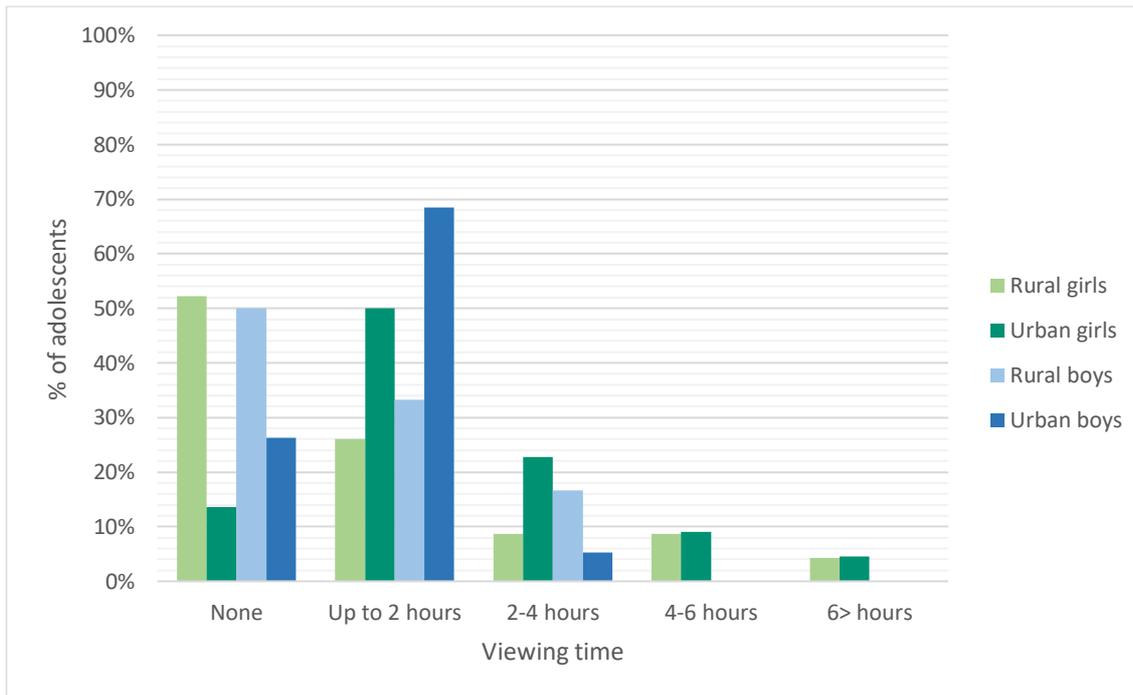


Drawing of watching television by a 15 year old girl, Chisec, Alta Verapaz (left) and photograph of a television in small shop in Cerro Azul, Alta Verapaz where boys would gather in the evening to watch films.

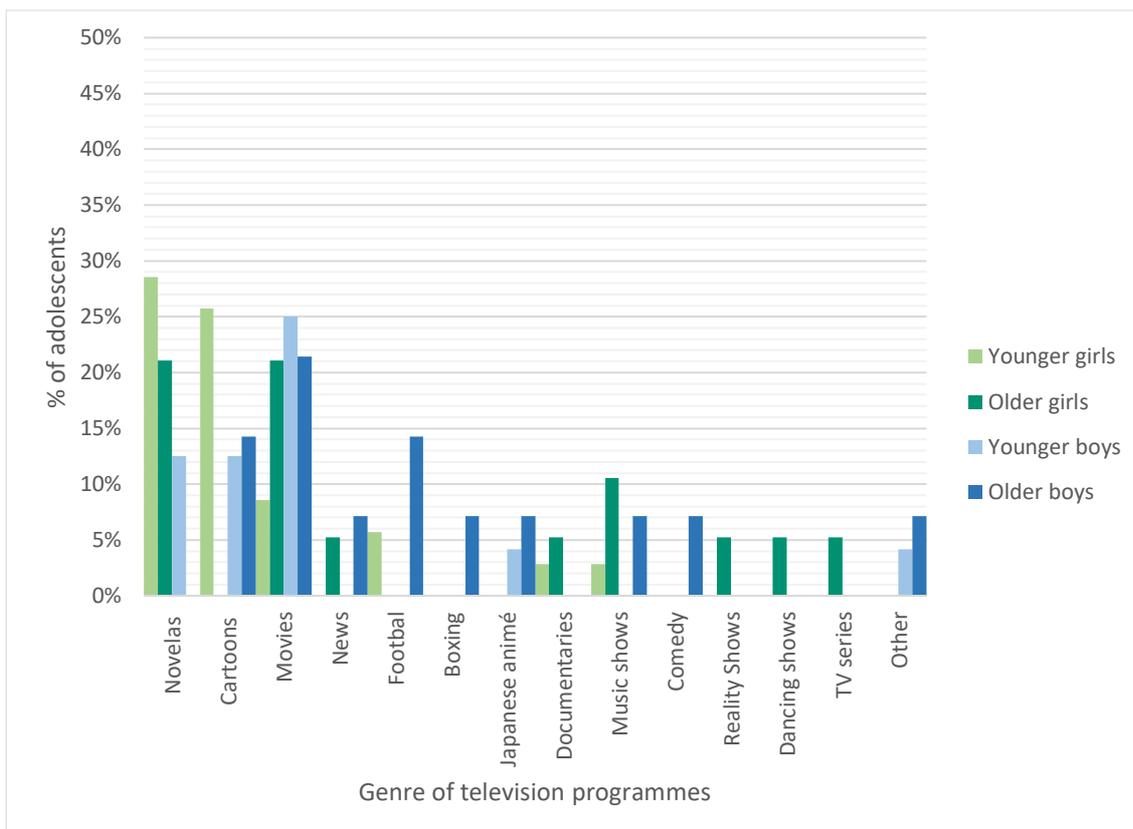
Television viewing was common across the research sites. In urban sites, 81% of respondents confirmed that they watched regularly (more in Chimaltenango compared to other sites), and 60% of respondents in rural areas watched regularly. Most respondents watched at home or at the house of a family member or friends. It was usual for boys to purchase snacks from shops so they were able to watch films and cable television programmes on the shop's television.

¹³ At the time of data collection, many community radio stations were pirate stations which the government was attempting to close down (see also Avila 2014). The reform of the national telecommunications law in 2011, allowed broadcast media with legally allocated frequencies to renew them, but failed to address the situation of community broadcasters without legal frequencies. The government required community stations to purchase an FM licence costing several thousand USD.

Graph 4: Television usage per day by gender and location



Graph 5: Popular genres of television programming by gender and age



Many watched television alone (mostly boys), or with family members (mostly girls) usually in the afternoon or evening. Most survey respondents watched 15-120 minutes per day, and more girls than boys reported longer viewing durations of two hours or more per day. Some girls reported watching for more than four hours per day, often whilst doing their household chores. The most frequently viewed

programmes were films and the news (both boys and girls), cartoons and other animations (younger adolescents), and soap series (*novelas*) (both girls and boys, but more often girls).

Mobile phones

Of the survey respondents 59% (n=47) had access to a mobile phone, but only 25% (n=20) reported owning a mobile phone themselves (see Graph 1 above). Most adolescents in the participatory workshops explained that they had access to a mobile phone by borrowing their friends' or relatives' phones, but their usage was likely to be closely monitored and time limited. Only four of the 90 girls (4%) who participated in the workshops across the field sites reported owning a phone compared to 14 of the 72 boys (20%). Common reasons for not owning or having access to a phone included expense (*'It costs too much'*; *'My parents don't have enough money'*); age restrictions (*'My parents don't think I am old enough'*); and lack of knowledge (*'I don't understand it'*).

Of the survey respondents who had access to a phone, (59%, n=47), 75% (n=35) had access to a smartphone. The majority used a sim card from either Tigo (63%, n=22) or Claro (31%, n=11). Most often, respondents used their phones to communicate with friends and family members, by sending text messages. Voice calls (via the phone or through WhatsApp and Facebook) were less frequently made. All respondents that had access to a smart phone used social networks via their mobile phones, most often Facebook, but also WhatsApp. A recent study concluded that *'Calls are perceived to be the media of adults'* (Ramirez 2017).

Adolescents in the workshops indicated that they used their phones to chat with their friends or to listen to music or the radio. In the workshop in Xzetzizi, Chimaltenango, two of the ten older girls who participated in the workshop confided that they were doing household tasks for others in the community so that they could secretly save money to purchase a phone. They were concerned that if their parents knew they wanted to have a phone, they would prohibit it. In discussing why they wanted phones, the reasons most frequently forwarded by the girls were to chat with friends, watch YouTube clips, seek information for their homework, and access the internet to research *'life issues'* related to SHR, boys and love.

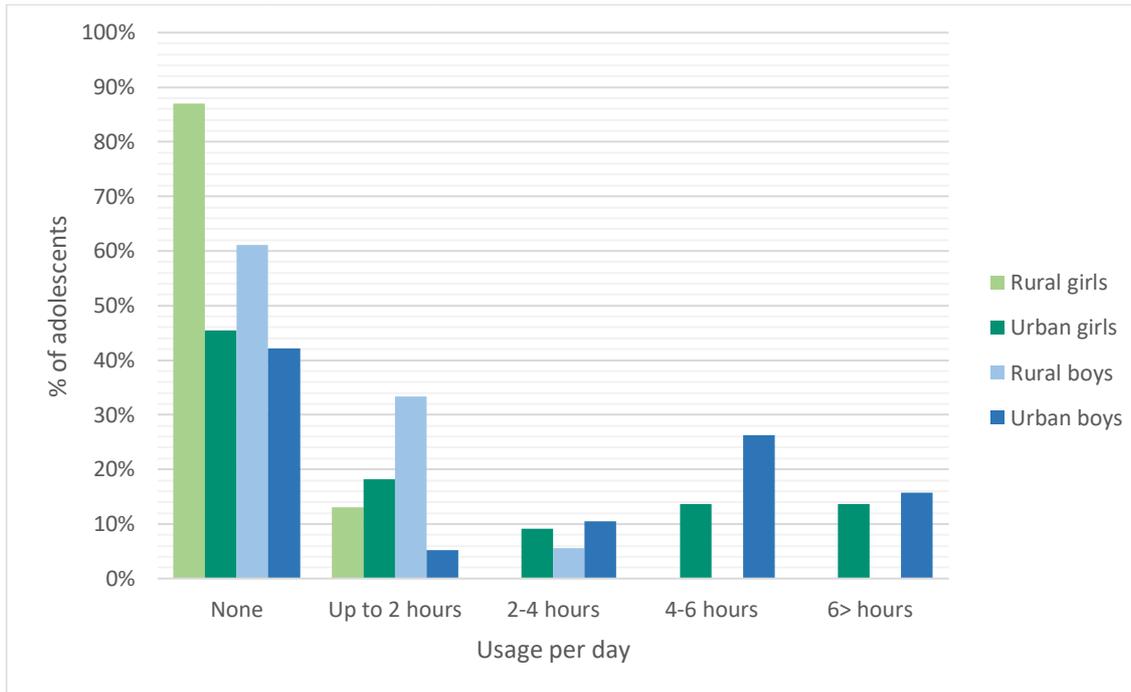
In all research locations, mobile phone usage by adolescent girls was monitored by their primary caregivers. Having access to the internet via their phones and therefore being part of a wider social network was perceived to be risky. As a community leader in Chisec, Alta Verapaz, suggested, *'In the case of girls, dangers comes in many forms. It could be that they have a boyfriend at an early age, that they are walking in the streets too late, or that she has a phone. The phone is the latest 'inferno' [hell] for people [with children] here in Guatemala'*. Caregivers confirmed that they felt less able to control the behaviour of their adolescent children when they were online, and were afraid that girls may make *'secret boyfriends'* on the internet. Not only were they concerned about the girls' safety, but also the risk that online liaisons would be acted upon, that the girls would make arrangements to meet the boys in secret, engage in pre-marital relationships and would become pregnant. Parents were less concerned about the online behaviour of boys given that they did not face the same gendered restrictions and social norms as girls.

Not all research locations had consistent phone coverage. Adolescents in Cerro Azul, Alta Verapaz, for example, explained that they had to walk for up to twenty minutes to have reception on higher ground. The areas that had coverage were often unavailable to adolescent girls because, *'It is where all the man go in the afternoon'* and as such it was perceived to be a male dominated space that was inappropriate for girls. Adolescent boys confirmed that they sometimes travelled to Chiquibul, a neighbouring village known to have better reception where they could download music to their phones.

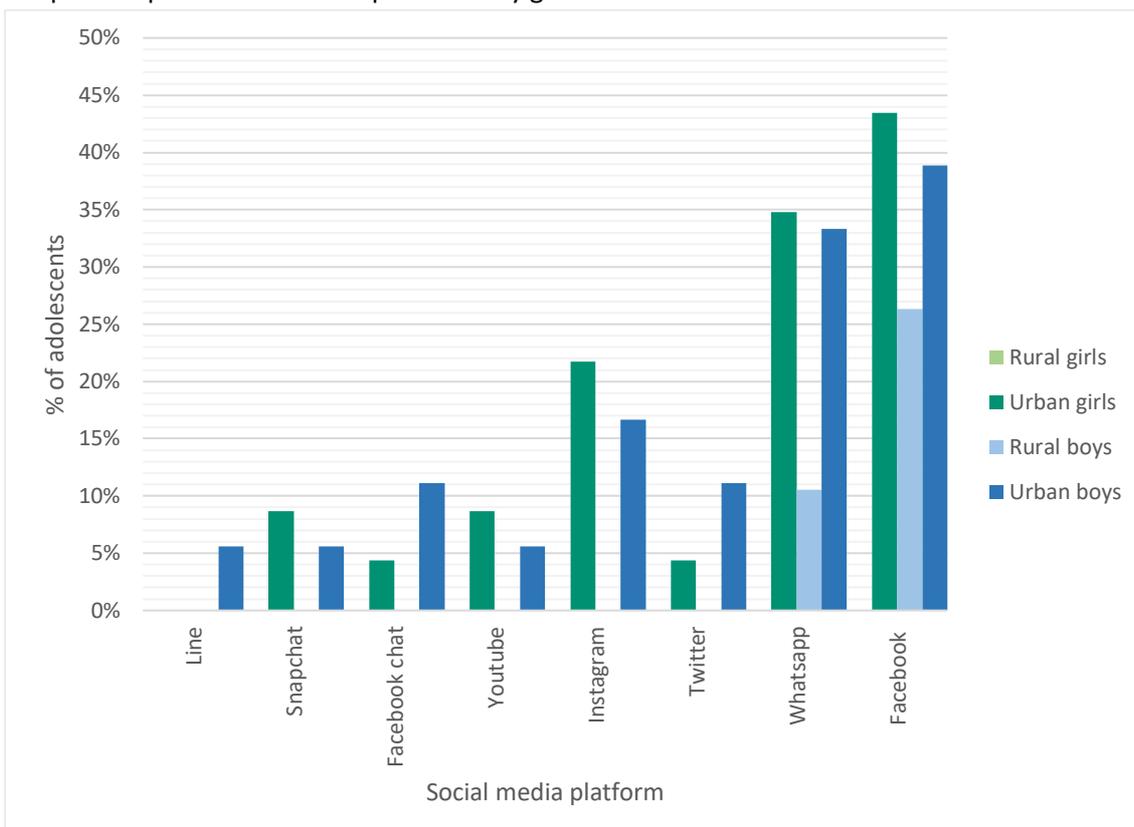
Internet

Less than half of the survey respondents used the internet (43%, n=35). Common reasons for non-use included issues of access (not having access to an enabled smartphone or computer); cost (*'It's too expensive'*); permission and risk (*'My parents don't allow me to go online because horrible things happen on the internet, like they post naked women'*); and time limitations. Although there were internet cafes in Chisec, Alta Verapaz and in Chimaltenango City, older adolescent girl respondents did not frequent them, mainly because such places were seen to be socially unacceptable given the number of boys that *'hung around'* playing video games (discussed below). Boys who did not use the internet cafes reported that they did not do so because of the cost incurred to get online.

Graph 6: Internet usage per day by gender and location



Graph 7: Popular social media platforms by gender and location



Of those respondents who did use the internet, over half went online every day, mostly in the afternoon or evening and for between two and four hours. Most used the internet alone, and only a few went online together with their friends. Most (80%, n=28) accessed the internet via a smartphone, either their own personal phone, or a phone borrowed from family or friends and several respondents explained that they only went online when they had money for credit (often only once per week due to limited resources). Boys spent longer online than girls, and as may be expected, adolescents in urban areas spent longer online than those in rural areas.

Slightly more boys than girls were able to access the internet at secondary school or in public areas with Wi-Fi connections. Again, this is in line with the fact that girls' mobility was more tightly restricted, they were supervised more closely by their caregivers, and fewer girls were enrolled in secondary school. Respondents in the survey and adolescent participants in the workshops who had internet access indicated that they used it for entertainment, going online to chat with friends and family (including family members who had migrated overseas); to look at photographs; watch films; and to look for information, both for school work and more broadly. The most visited websites were Google (used to search for information and material needed for school assignments) and Facebook (to chat with friends, look at pictures, or read the news). Other social media apps commonly reported were WhatsApp (to chat with friends) and Instagram (to post and view pictures). All respondents, but particularly girls, indicated that their online behaviour was supervised and routinely monitored by their caregivers.

Gaming

In all the field sites, younger boys (aged 10-14 years) who participated in the workshops indicated that they played video games at public internet cafes, except in Cerro Azul, Alta Verapaz, where there were no internet cafes. This was an important source of entertainment given the lack of such equipment at home. One of the workshop participants in Chisec, Alta Verapaz, earned a small income by overseeing a video room with an Xbox on which 'Boys play FIFA and Mortal Combat'. It cost Quetzal 5 (0.70 USD) to play for one hour with a single controller, and Quetzal 10 (1.40 USD) for two controllers. The cost of a game was often shared amongst several adolescent boys. Adolescents from wealthier families received pocket money from their caregivers to play games and it was common to find a crowd of boys gathered around a computer to watch others play games.



"The cafe I play games in"

*Photograph taken by 16 year old boy,
Chisec, Alta Verapaz.*

Adolescent programming

The landscape analysis mapped programmes delivering activities for adolescents in the following sectors: adolescent sexual and reproductive health; livelihoods; agriculture; education; social protection; participation, and nutrition.¹⁴ Most programmes were not implemented at scale and often had only local coverage. The mapping exercise revealed various delivery channels that had been effectively used by programme implementers to reach adolescents. With the recent entry of the nutrition sector into the adolescent programming space, there is a valuable opportunity to leverage the good practice and lessons learnt from other programmes, and in parallel, to integrate evidence-based nutrition interventions into successful programme models.

Table 12 (at the end of the chapter) provides a summary of adolescent programming reported during the stakeholder mapping. Several trends were evident. Younger adolescents were reached through school-

¹⁴ The results of the mapping exercise were compiled in a spreadsheet database that was deposited with WFP at the conclusion of the research.

based interventions. Most programmes provided holistic services to the entire family but primarily focused on pregnant women and children under five years, or on adult male farmers. Older male adolescents were incidentally included in agricultural support services, and older female adolescents were included in health related services when pregnant. When adolescents were the direct beneficiaries there was a bias towards sexual and reproductive health programming for girls, and a strong focus on rights-based advocacy and awareness-raising programmes rather than actual direct service provision. At the time of the research, a number of programmes were or had recently been active in the field sites.

Abriendo Oportunidades: In Chisec, Alta Verapaz, the Population Council implemented the programme *Abriendo Oportunidades*, focusing on adolescent girls (see box below). A 2011 quantitative household survey showed that 97% of the girl leaders trained under the programme remained unmarried during the programme cycle, and indicated that their sense of self-efficacy, as well as self-confidence had significantly increased because of the programme (see box below). Since the programme finished in 2015, no programme has offered activities specifically for girls in Chisec, Alta Verapaz. In Cerro Azul, Alta Verapaz, there were no organisations working with adolescents or specifically with girls. It was reported that INGOs including Mercy Corps had previously worked in the community on issues including child marriage and economic empowerment. No activities were being implemented at the time of the study, although a community leader indicated that in 2018, the Population Council would start a girls' club as part of their *Abriendo Oportunidades* programme.

Mi Especial Tesoro: In Chimaltenango City, adolescents engaged in the study were part of the *Mi Especial Tesoro*, a programme that aimed to provide alternative options to girls at risk of entering prostitution due to extreme poverty. Implemented by a Christian charity funded by donations from congregations mainly in the United States, it provided protection, education and healthcare services and gave refreshments to complement the often limited food that the girls consumed at home.

Renacimiento: In Xetzzi, Chimaltenango the NGO '*Renacimiento*' had worked with adolescent girls from 2011 onwards organising recreational activities which focused on empowerment. They also provide classes in handicrafts such as embroidery so that indigenous girls could learn a skill and gain a degree of financial independence.

Madres guías: '*Madres guías*' ('guide mothers') are community volunteers supported by the Ministry of Social Development (MIDES) to cascade training on nutrition, agriculture and health to their communities, and to foster social development. In Marasxco, Chiquimula, WFP worked with these community volunteers during the height of the drought to provide emergency training around healthy nutrition, empowerment and well-being. These front-line workers then mobilised other women at the community level to cascade nutrition-related knowledge. The programme was initially implemented by MIDES in 2013 and supported by WFP in 2015. Lessons learnt from this initiative informed WFP's longstanding health education activities to improve infant and young child feeding practices in the highland departments where stunting remains a major concern (Sololá, Totonicapán and Chimaltenango).

Survey respondents and workshop participants also highlighted various non-NGO organised mechanisms and platforms that they engaged with including groups at school; youth groups in the church; and sport clubs (most often football clubs and basketball groups). Such groups would usually meet one day per week or sometimes more frequently. The importance of football and other sport activities was also emphasised by adolescents during the participatory workshops across all field sites. In Chisec, Alta Verapaz, for example, both younger and older adolescent boys indicated that football was a way for them to meet other boys, and as one older boy highlighted, '*We don't train, we just communicate, we organise a game at an indoor soccer pitch, and we play Chamusa*'. '*Chamusca*' is a Guatemalan-Spanish slang term for an informal but often highly competitive football match amongst friends.

The *Abriendo Oportunidades* programme, Chisec

In Chisec, community leaders and adolescents spoke with passion about the effects of the *Abriendo Oportunidades* programme for adolescent girls run by the Population Council. The programme was designed to improve Mayan girls' social support networks, connect them with role models and mentors, build a base of critical life and leadership skills, and provide hands-on professional training and experience. Facilitators of the programme (who went on to establish an independent network of young indigenous leaders with ex-beneficiaries of the programme called the '*Mentoras de Chisec*'), reported the positive effects the programme had on girls enrolled in activities in Alta Verapaz. As one facilitator recalled, '*Girls were less shy after partaking in the classes, they had increased knowledge on sexual and reproductive health and performed better at school*'. Similarly, a female community leader confirmed, '*The only programme that helped the adolescents here in Chisec was Abriendo Oportunidades*'.

According to local youth leaders, aspects of the curriculum were designed to make adolescent participants more aware of their own well-being and of health and nutrition, and equipped them to '*make healthy decisions*'. The curriculum included components on self-esteem, gender rights and prevention of violence. In 2016, the programme added a module on agriculture, which, according to the facilitators was successfully implemented and well received. A facilitator explained, '*The girls learnt how to cultivate, so that they had good nutrition. They also learnt the 'moon cycle method' that they ancestors knew...*' (an indigenous approach to plant crops according to the lunar cycle (Lea 2017). According to some of the young women who had participated in the programme, they also benefitted from the financial literacy training. As one girl recounted, '*We would talk about our needs and wishes, and what we could do one day if we saved the money...and if our parents gave us money. They [the facilitators] explained that it was different 'wanting' to eat Tortrix [chips] and Coca Cola and so forth than really 'needing' to eat them*'.

In discussing key aspects of the programme, the young *mentoras* stressed that other organisations working with adolescent girls must recognise how difficult it often is for girls to attend activities because of other priorities and calls on their time including taking care of the household, studying, or obligations at church. They also highlighted the importance of working with men and boys in the community so they understood the programme and would allow the girls to attend and '*be empowered*'. To engage the men and boys, activities had to be '*Close to their homes, an in the late evening, from four to six in the afternoon, after their work*'. The distribution of bicycles to girls enrolled in the programme was regarded as being highly effective. It overcame significant access barriers by enabling the girls to cycle to and from school and programme activities, thereby saving them considerable time and out of pocket expenditure associated with transport costs.

At the time of data collection (July 2017) the programme was no longer operational in Alta Verapaz and activities had ceased. Stakeholders indicated, however, that discussions for ongoing engagement were underway, and they hoped the programme would be re-launched in the coming months.



Adolescent girls playing in the street, Cerro Azul, Alta Verapaz

Engagement preferences

Understanding how to effectively engage adolescents is essential for assessing how nutrition-specific and nutrition-sensitive interventions can be delivered and best related to other components of the 'adolescence equation'. Key influencers, modes of engagement, delivery channels – the mechanisms, but also the tone of the engagement is critical. Throughout the research, adolescents clearly articulated their priorities and needs related to engagement.

- *'Come to us, fit around our lifestyles'* – Adolescents stressed the importance of accessibility. They preferred to be *'reached'* in places they already frequented with their peers, in the afternoon or evening after they finished their work (housework or employment) or school day.
- *'Use our groups, don't group us'* – Given their more constrained social worlds, adolescent girls stressed the importance of creating opportunities where they could meet with peers, and they wanted *'groups to be made with just us girls'*. In line with their different experiences, however, girls highlighted that girls in- and out-of-school had different social groups, as did girls who were already married and had children, compared with those who did not. Activities, including nutrition interventions, should be tailored to such groupings.
- *'Make it entertaining'* – All adolescents reported that they wanted to be engaged in a fun manner, *'don't just preach to us, that is boring'*. They recommended the use of music, different media and sports activities as positive hooks to engage adolescents.
- *'Show us real experiences'* – Adolescent participants across all research sites emphasised their desire to have activities for young people facilitated by youth leaders who were close to them in age and socio-economic status, and who had shared similar experiences and challenges growing up.
- *'Ask us, include us'* – Adolescents stressed that they did not want to *'be just told'*, but to understand *'the why'*. They wanted to be engaged in a participatory manner and involved in key decision-making processes so that their voices were heard and their opinions recognised.
- *'Speak our language'* – Adolescents stressed that they were not a uniform group and that boys and girls, older and younger adolescents and those from different communities should be engaged in the most appropriate way. Younger adolescents suggested they be approached *'playfully'*, whilst older adolescents emphasised the importance of speaking their language, not only in terms of local dialects, but also to capture colloquialisms and current trends.
- *'Include the people around us'* – Because of the important gatekeeper roles that caregivers played in their lives, adolescents emphasised that initiatives directed at their engagement should also involve their families. Girls stressed that they did not have the same decision-making power as boys and suggested that girls be supported to negotiate with their families to facilitate their participation in activities.
- *'With food, we need energy now...'* – Adolescents reported that having energy was their priority to ensure that they could complete their daily workload. They confirmed their preference for *'fast'*, *'high energy'*, *'fashionable'* and *'filling'* foods. They were likely to source foods that gave them immediate energy and were related to their desired social identity. This focus on the present should be carefully considered in adolescent nutrition programming and to create opportunities to set new and healthy trends.
- *'Build us up for the future'* – Participants emphasised the importance of engaging adolescents holistically, providing health and nutritional information alongside sexual and reproductive health services, vocational training and financial management. Adolescents suggested that this approach would address *'all the challenges we face in our lives'*, by giving them interrelated life and livelihood skills.

Table 11: Adolescent programming reported during the stakeholder mapping

Theme	Delivery channel	Scope of engagement	Target group	Key partners
Provision of health information	Community based 'Guide mothers'	Nutritional and health information for children under 5 years old provided to 'guide mothers' who meet other mothers in their community.	Mothers including adolescent mothers	WorldVision, Catholic Relief Services, Mercy Corps, FAO, WFP.
	Health and nutrition extension workers	Providing adolescents with SHR related and nutrition related information	Adolescents and adolescent mothers	Plan International, SESAN, MSPAS, Wings Alas, Tula Salud
	Peer education	Adolescent girls cascade health information and leadership training to other adolescents.	Adolescent girls	Plan International, UNICEF, Wings Alas, Tula Salud
	Mobile phones	Health information provision and collection via mobile phone platforms	Families, indirectly adolescents	WFP (Agri Up), Wuqu' Kawoq, Tula Salud
	School based informational campaigns	On Sexual and Reproductive Health and Rights and other health and nutrition related issues as well as on the importance of girls education	Younger adolescents	UNFPA, PLAN, UNICEF, MINEDUC
	Mass and digital media	Nationwide distribution of information and educational materials on nutrition and health	Youth and adolescents	UNICEF, UNESCO, CONALPHA, IGER
	U-report	Survey tool focused on obtaining information on the lived realities of youth and adolescents in Guatemala	Youth and adolescents	UNICEF
Health service delivery	Traditional health practitioners and auxiliary nurses.	Provision of culturally appropriate care to indigenous adolescents	General population including adolescents	MSPAS
	Mobile clinics	Community based counselling and provision of temporary and permanent contraceptives	General population including adolescents	Wings Alas
	Adolescent friendly health spaces	Provision of age and gender sensitive services to adolescents in primary healthcare settings in Guatemala	Adolescents	UNICEF, MSPAS
	Contraceptive provision	Provision of contraceptives to adolescents	Adolescents	MSPAS, OPS/OMS
Cash / food distribution	Cash Transfers	Cash transfers for health, nutrition and education services	Vulnerable families, indirectly reaching adolescents living at home, or those that already have their own families	MIDES
	Food packages	Food packages to reduce poverty and social risk in urban areas	Vulnerable families, indirectly reaching adolescents living at home or those that already have their own families, including single mothers	MIDES, MSPAS
	Food distribution via eateries ('comedores')	Food provision through shelters in cases of emergency	Vulnerable families, indirectly reaching adolescents living at home	MIDES, MSPAS
	Micronutrient supplementation	Provision of micronutrients to young children under 5	Mothers including adolescent mothers	WorldVision, USAID, WFP, MSPAS

	School meals	Provision of healthy nutrition to adolescents in schools.	School going adolescents	Catholic Relief Services, WFP, MINEDUC
	Alternative Care Homes	Provision of daily feeding to orphans and children involved in child protection cases	Adolescents	UNICEF, SOS Children Villages
	Community Gardens	Supporting a community with the cultivation of crops to feed the adolescents in the community	Farmers, indirectly adolescents living at home	WorldVision
Income generation	Crop monitoring via online bulletins	Information provision on drought, rain, and market prices of crops.	Head of households, indirectly adolescent farmers	MAGA
	Vocational training	Vocational training on for example sowing, arts and crafts, agribusiness	Heads of household and adolescents (female for arts and crafts, boys for agribusiness)	CARE, Municipal Youth Network, MINEDUC, MPSA, FAO
	Agribusiness support	Agro-forestry, diversification, training, farming field schools	Farmers, indirectly including adolescents	Catholic Relief Services, Mercy Corps, Oxfam, USAID, FAO
	Saving groups for families	Saving funds for emergency situations or for obtaining small loans when the harvest fails.	Farmers, indirectly adolescents living at home	Catholic Relief Services
	Youth Leadership Network	Adolescents providing feedback on national policies and design awareness raising campaigns	Youth and adolescents	UNFPA, UNDP
	Leadership workshops	Workshops with girls where they are taught their rights and leadership skills	Adolescent girls	PLAN
	Advocacy on gender equality	Right based advocacy for women's rights and the position of the female farmer in Guatemala and against gender based violence	Woman and older girls	Oxfam, UNWOMEN, DEMI
	Peer to peer education	On the importance of education and schooling	Adolescents	PLAN, UNESCO
Advocacy and leadership	Youth Leadership Network	Adolescents providing feedback on national policies and design awareness raising campaigns	Youth and older adolescents	UNFPA, UNDP
	Leadership workshops	Workshops with girls where they are taught their rights and leadership skills.	Adolescent girls	PLAN
	Advocacy on gender equality	Right based advocacy for women's rights and the position of the female farmer in Guatemala and against gender based violence	Woman and older girls	Oxfam, UNWOMEN, DEMI
	Peer to peer education	On the importance of education and schooling	Adolescents	PLAN, UNESCO
	Safe Spaces	Community based girl's clubs where adolescents learn practical life skills, financial and agricultural skills.	Adolescent girls	Population Council, CARE, MINEDUC, MSPAS, UNICEF

Conclusion and recommendations

The world currently has the largest generation of 10-19 year olds in history (UNFPA 2017). As a population group, unique health concerns and needs are associated with adolescents and as target group they require specific nutrition interventions. There is clear evidence of the growing disparities among adolescents and youth within and across countries. Demands on young people are new and unprecedented and those who live in poverty face major disadvantages. With the Sustainable Development Goals, the global policy landscape has shifted and adolescents are being recognised as a significant population that deserve greater visibility and attention.

The research gathered new empirical data in Guatemala on the experiences, needs and priorities of adolescents regarding their health, nutrition and sustainable development, and established their engagement preferences in different contexts. In conclusion, a series of user-centered recommendations are made in relation to strengthening the visibility of adolescents; influencing adolescent nutrition; engaging with adolescents; the platforms for engagement; and entry points for strategic partnerships. A summary table that collates key policy and programming implications is presented at the end of the chapter.

Strengthening the visibility of adolescents

- Nearly one quarter of the population in Guatemala are adolescents, but they are largely invisible in policy. Adolescent malnutrition is a large-scale challenge, and as a sub-population with unique nutritional needs, adolescents are being left behind. Guatemala should consider applying an adolescent lens to existing policies and programming. Focused advocacy efforts are needed to encourage key actors to commit to interventions for this group.
- At the national-level, different sectors use various definitions of adolescence, and in so doing, the needs of adolescents risk becoming diluted or falling through policy and programming gaps. Existing nutrition policies and key strategic plans rarely mention adolescents and no budget is assigned to adolescent nutrition, which results in limited programming for this group. National efforts to limit stunting have been widespread and effective. Similar attention should be afforded to adolescents as a priority target group, and synergies created with other effective programming.
- Definitions of adolescence at the national level are not consistent with definitions used at the community level. This results in some adolescents self-identifying in ways that prevent them from seeking youth-orientated services. Interventions must be sensitive to variables including age, gender, socio-economic status, life experiences / stages, livelihoods and ethnicity. Effective engagement should target groups as defined and understood at the community level.
- 'Adolescents' must not be interpreted as a homogenous or standard group. Within this age group, different life-stages occur and should be accounted for. Similarly, adolescents are subjected to a range of socio-economic and contextual factors that shape their lived realities. These sub-groups are not mutually exclusive, rather an adolescent can belong to or self-identify with multiple groups concurrently and over time. Assuming a user-centred design approach, interventions should therefore be developed in an age-, gender- and context-specific/sensitive manner.

Influencing adolescent nutrition

- When taking adolescents as the central unit of analysis, it becomes clear that in Guatemala this group is uniquely affected across the 'triple burden' (the existence of underweight, overweight and micronutrient deficiencies in the same population). Adolescence provides a 'second window' to

improve the nutrition and health of the population through promoting optimal development and preventing diet-related chronic diseases in adulthood.

- Programmes targeting adolescents must take account of the nutritional challenges faced in different contextual settings, and the impact this has on their overall growth, development and well-being. Complex and poor dietary habits are the underlying problem for both undernutrition and over nutrition.
- Increasing communication and information about nutrition alone will not improve the diet or health-related behaviour of adolescents. Rather, interventions should adopt a systems-based approach that addresses the nutritional needs of adolescents in the context of and in combination with other key components of their lives. Communication and information should be combined with improved access to healthy food and other services.
- Reducing poverty by increasing safe income-generation opportunities that would raise household economic status is key, but such opportunities should be designed to encourage school attendance for adolescents. For adolescents who are older or do not attend school, vocational training that develops business skills and provides resources such as start-up equipment, is an important avenue of constructive engagement.
- In addressing agricultural practices for adolescents and their households, an agri-nutrition lens should be adopted. Knowledge, skills and resources should be developed for effective and efficient irrigation systems and post-harvest storage, and consideration given to issues of land access. New and emerging urban-agricultural methodologies (e.g. sack-gardens) may be particularly relevant and appealing for adolescents residing in urban and peri-urban localities.
- Addressing adolescent nutrition requires a systems-based approach that considers restrictive social norms, sexual and reproductive health issues including early marriage and teenage pregnancy, and access to education. These are critical components related to improving nutritional status and wellbeing.

Engaging with adolescents

- As target beneficiaries, adolescents should be engaged as active participants in the design, implementation and monitoring of interventions. Programmes should be sensitive to the needs, preferences and priorities of adolescents. During the research, they clearly articulated suggestions that should be operationalised including ease of access, the strategic use of language, and showcasing real experiences. They emphasised the importance of privacy, trust, transparency and equity in all engagements. They wanted interventions to develop their skills for the future, but to be dynamic and entertaining, using music, dance and sport.
- Although it risks perpetuating unequal social norms, adolescents emphasised that they wanted to be engaged in gender-specific groupings and in places where they already meet. Adolescent boys meet their peers in the community after work or school, particularly to play football or other sports. Rural indigenous boys also reported meeting friends at local shops to watch television (usually football or films). Adolescent girls met each other in the community whilst undertaking household chores, such as looking for firewood or washing clothes. Many older indigenous adolescent girls reported that since leaving school, their friendship group had reduced, and they only had limited time to meet others outside their household or immediate community, emphasising again that due to their restricted movement, interventions had to engage with them in *'their space'*.
- Several key influencers in the lives of adolescents were identified including caregivers and parents, particularly mothers (for younger adolescents); husbands and mothers-in-law (for married adolescents); peers (for older adolescent boys); teachers (for those in-school); religious leaders (for older adolescent girls); and community leaders (for adolescent girls and boys of different ages).

Securing their buy-in and support is vital in both generating demand and facilitating utilisation of programmes and services.

- Adolescents can be agents of change for family members and their broader communities. In addition to receiving information about nutrition and nutrition-related services for their own wellbeing, adolescents should be considered primary targets for cascading knowledge and improving the nutrition of their younger siblings and other vulnerable groups (e.g. children under five, pregnant women).
- There is need to support trusted adolescents to assume positions of leadership to represent the voice(s) of their peer group(s), to ensure appropriate user-centred design, and to provide monitoring and evaluation feedback to ensure programmes are appropriate, relevant and effective.

Platforms for engagement

- Considering the dynamic needs of adolescents, there is no 'one size fits all' delivery channel. Interventions should respond to the complex realities of an adolescent's life and rather than being an additional burden, should be mindful of the conflicting responsibilities they may have. Adolescents should be engaged through multiple avenues or platforms that are mutually supportive.
- The formative research and stakeholder mapping documented existing programmes that engaged adolescents and implemented activities related to nutrition; sexual and reproductive health; economic empowerment and livelihood support; education; social protection; and leadership related to youth participation. There was a particular bias towards girls and sexual reproductive health programming. Overall, however, programmes were not implemented at scale and coverage was therefore limited. Only a few programmes were designed with adolescents as the primary beneficiaries, but multiple programmes 'accidentally' included adolescents (such as health interventions for pregnant women, and livelihood support programmes for farmers).
- Various platforms engaged adolescents at the community level. Religious institutions played a significant role in the lives of all adolescents who participated in the study. Church is easily accessible and socially acceptable, particularly in rural areas where limited activities for adolescents are available. It is challenging, however, for religious institutions to actively tackle sexual and reproductive health and family-planning related issues, and this limits the potential impact of the church as a delivery channel. For those in formal education, particularly younger adolescents and boys, school was identified as a positive and trusted platform for engagement, although it was noted to be a selective channel given that not all adolescents (particularly older adolescents and girls) attended. Girls who had attended ANC services discussed health facilities (specifically rural health posts) as providing health- and nutrition-related advice. Other adolescents, including boys and younger girls, perceived health centres to be for curative treatment, and perceptions around contraceptives and the negative implications of pre-marital sexual relations restricted the use of health services by many.
- Technology platforms are a promising way to engage adolescents, yet the research provided further evidence that the penetration and use of technology is highly context-specific and differs according to social groups, age and gender. Girls in urban areas were more likely to use social media and watch television given their restricted mobility due to safety concerns. These girls reported using applications including Facebook and WhatsApp to chat with each other. Girls' internet usage was closely monitored by their caregivers, although a few girls had 'secret' mobile phones to communicate with friends and boyfriends. Radio was more widely accessible for all adolescents in both urban and rural areas. Where adolescents did not have personal access to the radio through their mobile phone or own radio, they reported listening to radio programmes their parents selected. This could potentially limit the programmes they have access to, particularly those that discussed more sensitive issues such as contraceptive use or other sexual and reproductive health related themes. Television was the preferred mode of entertainment in urban areas and was increasingly popular and accessible in rural areas. Younger boys also reported playing video games in internet cafes.

Entry points for strategic partnerships

- Policy and programming entry points need to be strengthened and expanded. Currently, programming is selective and localised. Further investment in both nutrition-specific and nutrition-sensitive adolescent programming is needed if the most vulnerable girls and boys are to be reached.
- Most organisations that engage adolescents in Guatemala focus on providing sexual and reproductive health services for older adolescents. These existing programmes may provide a valuable opportunity for engaging adolescents on other issues, including nutrition for themselves and their families.
- Many adolescents are included in activities that are orientated towards adults. In acknowledging this, programmes should be aware of the special needs of adolescents of different ages and encouraged to modify their services appropriately. Services aimed at women of reproductive age should purposefully try to reach all adolescents, and services aimed at pregnant women should ensure that pregnant adolescents are effectively included.
- Actors already active in the nutrition sector should be encouraged to further tailor their interventions to better reach adolescents. Their programming should recognise this specific target group and their unique needs, engage adolescents in appropriate ways and use approaches to which they are receptive. Investment in such channels should be prioritised to help mainstream adolescent nutrition programming. Existing communication strategies used by the MHSA, the Ministry of Culture and Sports and others could be strengthened to include age and gender-sensitive information targeting adolescents and adolescent nutrition issues.
- Coordination between government, partners and programme implementers should be improved to support an enabling environment for adolescent engagement. SESAN has an important role to play given their remit to coordinate, integrate and monitor food and nutrition security interventions among the public and private sectors, society and national and international agencies.
- The food industry should be positively engaged to ensure low-cost and healthy food is produced and sold, and to influence market trends towards the recognition and consumption of food that is healthy and has a high nutrient value. The Scaling Up Nutrition (SUN) business network could be strengthened to serve as an effective entry point to develop strategic partnerships with the private sector.



Adolescent girls organising their photographs in a participatory workshop, Cerro Azul, Alta Verapaz.

Summary of key policy and programme implications

Theme	Key considerations
Food consumption trends	<ul style="list-style-type: none"> • Make diverse, healthy, natural and affordable foods available and attractive to adolescents and their families, particularly in times of scarcity. Promoting healthier foods in small shops (particularly those located close to schools and workplaces) would increase their availability to adolescents who should be encouraged to choose healthier food over other options. • Curb the promotion and availability of unhealthy foods to adolescents and their families.
Food knowledge & classifications	<ul style="list-style-type: none"> • Existing food classification systems and traditions do not necessary prioritise or promote adolescent-specific nutritional needs but can be entry points in designing context-specific nutrition and health information communication strategies and activities. • Marketing and food advertisement campaigns can spread ‘rumours’ around the benefits of consuming certain types of food, e.g., the benefit of using energy drinks for strength. These types of promotions should be discussed in health promotion activities or restricted. • Knowledge of healthy food does not directly translate to healthy food practices, so investment should be made to ensure adolescents assume healthy diets and consumption patterns. This is linked to making healthy food not only available and accessible, but also aspirational and attractive. The promotion of healthy foods should focus on components adolescents value in terms of choice and consumption, primarily that they are energy-giving, filling, tasty and socially desirable. Healthy food choices could be promoted through engaging mass media such as <i>telenovelas</i> (soap operas), or social media.
Household food allocation	<ul style="list-style-type: none"> • The lack of household resources in times of scarcity linked to drought, floods and failed harvests means that adolescents are at risk of missing out on healthy nutrition during the critical years of adolescence. Policies invoking the activation of social safety nets and food assistance should be strongly linked to scarcity, and should purposively consider adolescent issues and constraints. • Adolescents and their caregivers must be better informed about the most cost-effective healthy foods available to them. • Ingrained gender norms related to food allocation within the household prevent girls’ healthy nutrition. Raising awareness about the importance of an adolescent girl’s nutrition should focus on her strength and role in the (household) economy (in terms of immediate value) and on the importance of her health for the next generation (future value). • Engaging with key male and adult influencers is critical. • Raising awareness around good nutrition during pregnancy also needs to be discussed in these forums. Cheap, safe and healthy snack foods should be made available for pregnant adolescents, and consideration given to snacks in terms of their value as food and micronutrient supplements.
Income generation	<ul style="list-style-type: none"> • Poverty is widespread, particularly amongst indigenous populations, and is exacerbated by climate change induced vulnerabilities and landownership struggles. Given this, income-generating activities are often prioritised over school attendance. Adolescents and their families therefore need strong incentives for this age group to continue formal education. • Some adolescents eat lunch, regarded as the most important meal of the day, at their workplace and many eat snacks to substitute lunch if they cannot afford to purchase it. Engaging with workplaces provides a valuable opportunity that programmes aimed at increasing adolescent nutrition should carefully explore and manage. • Healthy food is often more expensive, or at least is perceived to be, so it may be may useful to explore reducing costs associated with healthy unprocessed products whilst simultaneously decreasing access to non-nutritious, unhealthy foods.
Education	<ul style="list-style-type: none"> • The value of adolescent education should be promoted through community-based role models and linked to attractive incentive structures for adolescents and their wider family unit. To help facilitate school attendance, it is important to explore ways to reduce income-generation activities of both boys and girls, and the housework / household responsibilities of girls.
Violence & substance abuse	<ul style="list-style-type: none"> • Whilst it is important to invest in longer-term solutions to security issues, in the short- to medium-term girls in unsafe urban centres must be reached where they are and not left behind due to their constrained environment. • Investment should be made in sport and recreational activities for adolescent girls and boys. Whilst this would help overcome the sedentary nature of adolescents in insecure urban centres, it would also provide them with a safe platform to meet peers, form social relationships and develop a healthy body and mind. Engaging boys through sport activities would help promote the importance of health and nutrition for strength and physique as a positive alternative to alcohol and substance abuse.
Sexual & reproductive health	<ul style="list-style-type: none"> • Reducing adolescent pregnancy is key in ensuring the healthy development of adolescent girls and is linked with poverty reduction and education promotion efforts that have been proven to have a positive impact on adolescent nutrition and broader well-being. • Health facility services should actively try to reach adolescents and sustain engagement. Services should be carefully designed to ensure this age group perceives them to be relevant. Normalising health facility visits for preventative care is important and should aim to shift association away from sexual and reproductive health issues. In parallel, the provision of quality care for adolescents must be further strengthened.



Universidad del Valle de Guatemala

Comité de Ética de Ciencias Sociales
18 avenida 11-95 zona 15, Vista Hermosa III
Teléfonos: 2364 0336 /40, ext. 402
Correo electrónico: eticaccss@uvg.edu.gt

A: Ingrid Gercama, M.A.

DE: Comité de Ética –CE-,
Facultad de Ciencias Sociales
Universidad del Valle de Guatemala –UVG-

FECHA: 08-06-2017

ASUNTO: Aprobación de protocolo #27 "Nutrición en Adolescentes: investigación formativa".

El Comité de Ética de la Facultad de Ciencias Sociales de la Universidad del Valle de Guatemala ha revisado y aprobado el protocolo arriba indicado.

Se le recuerda que el Comité de Ética de la Facultad de Ciencias Sociales debe revisar y aprobar todos protocolos de investigación que involucren seres humanos por lo menos una vez al año. Si el proyecto dura más de un año, es responsabilidad del investigador enviar al Comité el protocolo de investigación para revisión y solicitud de aprobación de continuación del estudio.

Archive esta notificación como prueba de la aprobación del Comité. Esta aprobación es válida hasta el 07-06-2018. Para evitar atrasos en la aprobación de su investigación y la posible suspensión del estudio, por favor envíe su solicitud de continuación, por lo menos seis semanas antes de la fecha de vencimiento.

Cualquier problema o evento serio relacionado con el estudio, deberá ser inmediatamente notificado al Comité. Cualquier modificación al protocolo debe ser enviada al Comité para su aprobación antes de ser implementado.

Si tiene alguna duda o pregunta, por favor contactar al Comité de Ética de la Facultad de Ciencias Sociales a través del correo electrónico eticaccss@uvg.edu.gt.



Mtra. Gabriela González Oliva
Presidenta Alterna
Comité de Ética
Facultad de Ciencias Sociales
Universidad del Valle de Guatemala

Annex 2 – Research team

From WFP Headquarters, the global study was conceived by Lynnda Kiess, Senior Policy Advisor, and supported by Indira Bose, Fill the Nutrient Gap Consultant. Both provided oversight throughout the project.

The study was led by Anthrologica. It was managed by Juliet Bedford who contributed to each stage of the research, provided technical guidance and was responsible for the final deliverables. The in-country research was led by Ingrid Gercama who undertook data collection, conducted the full analysis of material generated and drafted the report in collaboration with Juliet Bedford. The initial document search and background literature review was conducted by Leslie Jones .

From WFP Guatemala, Maritza Oliva, Eunice Lopez, Irma Chavarria and Melvin Alvarez collaborated with Anthrologica throughout the project. In-country support was provided by WFP national consultant, Maria Ana Isabel Galindo Flores who worked alongside Ingrid Gercama and led the mapping component of the project, organised the logistics of field research and completed a landscape analysis of recent nutrition and demographic data, and existing policies concerning adolescent nutrition.

Additional field assistance was provided by Mathilde Choc, Claudia Macz, Marcellina Tum, Modesta Ical Cholom who served as translators during data collection in Alta Verapaz and Chimaltenango. Virginia Cum served as both translator and transcriber in Chimaltenango, and Soledad Tzoc Bec as transcriber for all collected data in Alta Verapaz. Amilza Orocxo transcribed the material from Chimaltenango into Spanish, and Maria Salazar translated all the material into English. Two interns from the Anthropology Department at Valle University, Ana Lis Salazar Batres and Ana Sofi Gonzales supported the technology survey, took detailed field notes and assisted during focus group discussion sessions.

Annex 3 – Stakeholders involved in mapping exercise

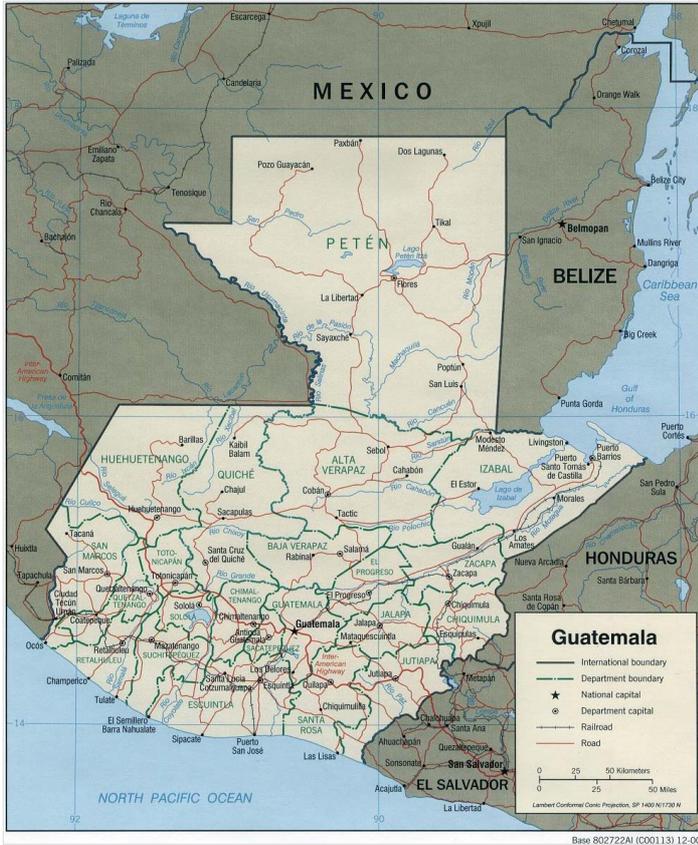
Type	Organisation
Donor	USAID
INGO	WorldVision
	Catholic Relief Services
	Mercy Corps
	Oxfam
	Population Council
	Plan International
	CARE
United Nations	UNFPA
	UNICEF
	FAO
	WFP
	PAHO/WHO
	UNDP
	UNESCO
	UN Women
National NGO	SOS Children's Villages Guatemala
	Tula Salud
	WINGS-ALAS
	WUQU' KAWOQ
	APROFAM - Association for Family Welfare of Guatemala
Private Sector	TIGO
	Pollo Campero via Fundación Juan Bautista Gutiérrez
	Mahler / Nestlé
Government	MSPAS
	SESAN
	MINEDUC
	MIDES
	MAGA
	SEGEPLAN
	SOSEP
	SEPREM
	SBS
	CONAPREVI
	CONJUVE
	DEMI
	MUNIGUATE
	UGAM
	MCD
Research	INCAP

Annex 4 – Fieldwork schedule

Date (2017)	Location	Activity
19 June	Guatemala City	WFP team meetings
20 June	Alta Verapaz - Cerro Azul	Key Informant Interviews
21 June	Alta Verapaz - Cerro Azul	Focus Groups Discussions
22 June	Alta Verapaz - Cerro Azul	Adolescent Workshops
23 June	Alta Verapaz - Cerro Azul	Adolescent Workshops
24 June	Alta Verapaz - Chisec	Key Informant Interviews
25 June	Alta Verapaz - Chisec	Focus Groups Discussions
26 June	Alta Verapaz - Chisec	Adolescent Workshops
27 June	Alta Verapaz - Chisec	Adolescent Workshops
28 June	Alta Verapaz - Chisec	Key informant Interviews
29 June	Chiquimula - Marasxco	Key informant Interviews
30 June	Chiquimula - Marasxco	Key informant Interviews
1 July	Guatemala City	National Holiday
2 July	Chimaltenango - Chimaltenango	Key Informant Interviews / Focus Group Discussions
3 July	Chimaltenango - Chimaltenango	Adolescent Workshops
4 July	Chimaltenango - Chimaltenango / Xzetzizi	Key Informant Interviews / Focus Group Discussions
5 July	Chimaltenango - Xzetzizi	Adolescent Workshops / Focus Group Discussions
6 July	Chimaltenango - Xzetzizi	Adolescent Workshops
7 July	Chimaltenango - Xzetzizi	Adolescent Workshops
8 July	Guatemala City	Debrief

Annex 5 – Maps and fieldsite details

Map 1: Guatemala



Map 2: Fieldsites



Indicators and key characteristics of departments included in research

Indicator	Alta Verapaz	Chimaltenango	Chiquimula
Population	1,100,000	650,000	97,102
Main ethnic groups	Q'echi' (90%)	Kaqchikel (78%)	Ladino (73%)
Topography	Mountainous Rainforest	Mountainous Dry	Mountainous Dry
Livelihoods	Agriculture Agro-forestry Palm oil plantations	Agriculture Trade Remittances Economic migration	Agriculture Trade Remittances Economic migration
Mobile phone coverage	Limited coverage	Good coverage	Medium coverage
% of the population in extreme poverty	57	66	34
% of the population who are illiterate	15	12	21
% of women who never attended school	34	11	25
% of women who reported not being able to access a health centre (due to distance)	51	34	41
% of births attended by a medical professional	47	37	42
% of children under five with chronic malnutrition	50	56	56
% of children under five with severe malnutrition	18	22	25
% of women aged 15-49 years who are overweight	32	34	31
% of women aged 15-49 years who are obese	15	22	16
% of women who reported a man could justifiably hit his wife or girlfriend	7	7	18
% of women who seek services having experienced violence	35	31	22
% of women who accessed a newspaper, radio or television at least once per week	74	93	82
% of men who accessed a newspaper, radio or television at least once per week	86	95	91

Sources: MSPAS, INE 2014a, ICF International, 2017; FEWS NET, 2017; MINEDUC, 2016; INE, 2014c

Alta Verapaz

Alta Verapaz is a department in the north of Guatemala, close to the Mexican border, with a population of 1.1 million. Approximately 90% of the population self-identifies as indigenous and lives primarily in rural areas (INE 2014b). During pre-Hispanic times, Alta Verapaz was part of the Maya Civilisation and today, most of the inhabitants are from the Mayan *Q'eqchi'* ethnic group and speak both *Q'eqchi'* and Spanish (Hernandez, 2014). The indigenous population in Alta Verapaz has been the target of violence and exploitation by ladino and foreign elites throughout history. During the Guatemalan Civil War, for example, most of the massacres against the indigenous population took place in Alta Verapaz and surrounding departments, and during the colonial era the department was known for its tobacco plantations where ladino and foreign plantation owners employed large slave populations to cultivate the land (Dudley, 2010). In Alta Verapaz, 57% of the population continues to live in extreme poverty, the highest rate in the country. The department has the second highest rate of illiteracy at 14.6%, and 34% of the female population has never been to school (MSPAS, INE, ICF International, 2017). Health and nutrition indicators in Alta Verapaz also reveal troubling trends: the leading causes of mortality include pneumonia, acute diarrheal diseases and malnutrition, and the maternal mortality rate is, again, one of the highest in the country (Hernandez, 2014). Only 47% of births across the department are attended by a medical professional (MSPAS, INE, ICF International, 2017).

Food insecurity is common across the department. A 2015 government census of primary school children indicated that Alta Verapaz had the fourth highest percentage (47%) of chronic malnutrition in the country (MSPAS, INE, ICF International, 2017). Agriculture is the main livelihood and income generating opportunity for many people in the department, and most are subsistence farmers or engage in commercial farming. Cardamom is the fourth-largest agricultural export of Guatemala, of which 70% is cultivated in Alta Verapaz (GAIN, 2014). Coffee is also a staple cash crop in the department, bought by middlemen and coffee traders who export the beans to the Middle East (Verite, 2016).

Alta Verapaz has been identified as the region in Guatemala most vulnerable to climate change (Mazariegos, 2016). Forested areas in the Central Highlands are an important ecosystem that supports significant income-generating activities for the *Q'eqchi'* Maya, but in recent decades, deforestation has occurred at an increasing rate and this has negatively impacted the limited food security (Pope et. al. 2016). Some scholars speculate that the combination of slash-and-burn agriculture and population growth in *Q'eqchi'* communities have been significant factors in the deforestation of the Sierra Yalijux mountain range in southern Alta Verapaz (Renner, Voigt, and Markussen 2006; Pope et al., 2015). Land conflicts are frequent, particular given the valuable natural resources including oil, mineral and precious wood reserves located in the region.

Recent research also indicated that approximately 30% of forest has been lost to cocaine trafficking as drug traders invest in the legal timber industry to launder money (Taylor, 2017; Rodriguez, 2017). Due to its location on the border with the Mexican states of Chiapas, Tabasco and Campeche, Alta Verapaz forms part of the drug corridor running from Izabal on Guatemala's eastern border with Honduras and El Salvador (Sesnie et. al., 2017). Crime and violence are common in the department. In 2010, for example, as a result of the Mexican Drug War, the Los Zetas drug cartel members assumed control across much of the department and occupied many towns (Associated Press, 2010). In April 2017, the Guatemalan Armed Forces created a security zone along the border with Belize, Honduras, El Salvador and Mexico to block more than ten land routes commonly used by drug-trafficking organisations (Dialogo, 2017).

Alta Verapaz is the crossing point for the 'Transversal Norte', a trucking route that runs from the north of Guatemala to Belize, Mexico in the west and Honduras in the east. Despite this, the department remains relatively isolated from the rest of the country (Dudley, 2010). In 2011, just 34% of the department had electricity, whilst the capital and most areas of Central Guatemala are reliably connected to the electricity grid (Avila, 2014). Alta Verapaz is also one of the least connected departments in terms of communication technologies. Although the overall number of mobile phone subscriptions in Guatemala has risen since the

2000s, data from the three largest mobile phone providers demonstrates that coverage in Alta Verapaz remains limited, particularly in rural areas (Opensignal 2018).

Chisec City

In Alta Verapaz, the research was conducted in Chisec, a municipality in the north of the department of Alta Verapaz. Chisec is a sprawling urban settlement with a market, banks, pharmacies, two universities, a health centre and numerous churches, and is well connected to other areas of the department by an effective public transport network. Approximately 95% of the municipality's inhabitants are Mayan, and both Q'eqchi' and Spanish are widely spoken (Solano, 2012).

Chisec and its surround are well known for African palm oil production, locally referred to as '*Palma Africana*' or '*Rax-Muhj*'. Given high levels of both international and local demand for edible oils and fat, swaths of land are used to cultivate the crop (Solano, 2015). Numerous studies have reported that changes in land relations and the agro-ecosystem threaten the Maya-Q'eqchi' population and their livelihoods (Fradejas, 2013; Mingorria, 2016). As a result, land rights and resource-related struggles are common in the municipality and are a continuous point of contention between land owners, businesses and indigenous communities (Rodrigues, 2017; Mingoria 2017).

The research was conducted in the *barrio* (neighbourhood) Monja Blanca, a peri-urban neighbourhood located on the outskirts of Chisec City. The city centre is 20 to 30 minute walk from Monja Blanca and is frequently visited for both work (in the commercial sector) and leisure activities. Many residents in Chisec do not own land but rather rent land on which they produced coffee or cardamom. Others work as day labourers on the palm oil plantations and some migrate or commute to other departments to work on large agricultural plantations.

Cerro Azul

The village of Cerro Azul is one to two hour's journey by commercial bus from Chisec City. The route passes the '*Palmas de Ixcán*' (a Guatemalan palm oil production company) and is a steep, mountainous road lined with lush green vegetation and fields planted with corn. According to the COCODE, the village has approximately 125 households and most depend on livelihoods from subsistence and commercial farming cardamom and coffee. Others seek work on the nearby '*Palmas de Ixcán*' palm oil plantation or migrate seasonally to work on banana and sugar cane plantations in Escuintla or other areas on the coast.

The community is isolated and has only very limited access to services. Cerro Azul does not have a functioning phone network and the nearest 'point of connection' (e.g. to get coverage) is a 20 minute uphill walk. The community has a public primary school with three classrooms to cater for approximately 200 students, and seven churches (six Catholic and one Evangelical). There is no official health centre in the village. The government provides piped water, but it is limited and has to be rationed by the community.

Participants in Cerro Azul stressed that the lack of primary health services in the community was a barrier to adolescent development. They reported that nurses from Fray hospital in Chisec City visited the community for a couple of days each month to provide basic care, but for urgent or emergency care, community members had to travel to the hospital in Chisec. It was possible to call for the ambulance from the neighbouring town Chiquimbul, but the patient or their family would have to cover the cost of gasoline or pay around 200 Quetzal (USD 27). If the ambulance was unavailable, hiring a private car was possible, but the journey would cost around 400 Quetzal (USD 54) one way.

Community members recalled that the area was once rich in natural resources, but ladino land owners and companies continue to exploit the indigenous community. Participants emphasised the ongoing inequities they faced by demonstrating that the size of the pipe taking oil out of the area was twice the size of the

pipe delivering drinking water to the community. The sale (or seizure) of land has increased the vulnerability of the population and local farmers are dependent on unstable, low-paid jobs.

Chimaltenango

Chimaltenango is a mountainous department in the southwest of country, approximately 54km from Guatemala City. The population numbers nearly 650,000, 78.4% of which are of indigenous Kaqchikel Maya descent (INE, 2013). It has a young population, with an average age of 16 years and 66% of the population continues to live in poverty (INE, 2014c). The economy depends on a mix of agriculture, trade and remittances (FEWSNET, 2016). The basis of the local urban economy in Chimaltenango relies on the industrial sector (agri-business, textile, processing factories) and poorer community members often work as casual labourers on an ad-hoc basis, or in informal trade. Rural communities depend on small-scale cash crop and subsistence agriculture with farmers cultivating vegetables including broccoli, peas, zucchini, carrots, onions, tomatoes and corn and beans (International Center for Tropical Agriculture, 2011). The mountainous terrain offers ideal conditions for potato growing (FEWSNET, 2016).

Education and healthcare indicators appear to be promising, but ongoing improvement and efforts to sustain this trend is needed. Although illiteracy rates in the department have decreased over recent years, 11.8% of the population are still illiterate and there is a high dropout rate between primary and secondary school. Only 32% of school-aged children attend higher secondary school (MINEDUC, 2016). Access to healthcare remains difficult for many, in particular women. According to the most recent DHS, 34% of women aged 15-49 years old reported not being able to attend a health centre when needed because of the distance from their home to the service delivery point, although 57% of births in the department were attended by a medical professional (MSPAS, INE, ICF International, 2017).

Malnutrition remains a significant challenge in Chimaltenango with 56% of all children under the age of five demonstrating chronic undernutrition, and 22% severe undernutrition (MSPAS, INE, ICF International, 2017). The double burden of malnutrition is clearly evident in the department with 34% of women aged 15-49 years presenting as overweight and 22% as obese (MSPAS, INE, ICF International, 2017).

The highlands of Guatemala are characterised by a varied climatic system (International Center for Tropical Agriculture, 2011). The dry season runs from October to early May and the rainy season from late May until the end of September, but the effects of climate change are being registered in the department. During the research, for example, farmers in Patzún reported that their pea harvest would fail due to the icy winds during the rainy season and the heat during the dry season. Tropical storms or hurricanes also hit the department every year, destroying crops and effecting the livelihood of subsistence farmers.

Criminality in Chimaltenango has significantly increased over recent years. In 2013, 191 people were recorded as having a violent cause of death (homicide, parricide or murder), representing an 148% increase from 2012 (INE, 2014c). In 2017, a total of 24% of women aged 15-49 in the department reported having experienced physical, sexual or emotional abuse at some point during their lives (MSPAS, INE, ICF International, 2017).

The department's geographical proximity to the capital means that it has good access to and coverage of communication platforms. In the latest DHS 95% of men and 93% of women aged 15-49 years old indicated that they had access to a newspaper, radio and/or television at least once per week (MSPAS, INE, ICF International, 2017). Television was particularly popular in Chimaltenango, with 83% of the men and 76% of women surveyed watching television at least once per week.

Chimaltenango City

Chimaltenango city was founded in 1526 close to an old Mayan fortress. Because of its location on the Pan American Highway it has grown into a commercial hub for the surrounding villages and is a main stopping place for truckers (Britannica 2017). This supports the many cafes and bars, and prostitution is common. Chimaltenango City has a reputation as a dangerous place with high levels of violence, drug crime and alcohol abuse. In describing the city, a local farmer who participated in the research concluded, *'Chimaltenango is lost, it is one of the worst places in the world... Many young people here are murdered, and many more pass through the prisons...'*. Chimaltenango is on the drug trafficking route between Guatemala and the Gracias a Dios border with Mexico (Insight Crime 2016).

Chimaltenango has a wide range of services including a hospital, secondary schools and several universities as well as representation from key government bodies. The city also has a wide range of recreational opportunities including a permanent fair, city park, football stadium, numerous public football pitches and basketball courts that can be rented by the hour, a large market, popular clothes shops, and multiple fast-food chains (including Pollo Campero). Many people can not access these opportunities, however, due to limited resources. The majority of men who were engaged in the research in Chimaltenango worked as unskilled labourers paid by the day in the service industry as taxi or bus drivers, in the construction sector or at the government recycling plant. Many reported poor working conditions and low wages, and there was a high rate of both domestic migration to the large sugar cane and banana plantations in Escuintla or Petén, and international migration to the United States.

Xzetzizi

Xzetzizi is a small village in the Patzún municipality of Chimaltenango department. The village is located on a hillside surrounded by heavily forested mountains. The village has one primary school, a large Catholic church and a health post. The closest commercial city is Patzún, approximately 30 minutes by road from Xzetzizi. Community members commute to Patzún daily and children attend secondary school in the city.

Some of the village men are engaged as day labourers on construction sites outside Xzetzizi, but most work on commercial farms growing broccoli, carrots and cauliflowers. Rather than cultivate vegetables for household consumption, most farmers buy food with the money they receive from selling cash crops. When the harvest is poor, they are forced to look for employment in Patzún, or in Chimaltenango or other departments. There is a high rate of migration to the United States. Large areas of the town are under construction funded by remittances made by men working in the United States. In discussing the concrete buildings under construction, one adolescent boy who participated in the research explained, *'These are the houses from those who went'*. Households who are not supported by remittances are unable to afford concrete so the structures of their houses are usually wood with zinc roofs.

Chiquimula

Chiquimula department lies in the northeast of Guatemala bordering El Salvador and Honduras, approximately 145km from Guatemala City. According the 2015 census, the official population of Chiquimula was 97,102, although government officials suggested that the population has grown further over the intervening years. Approximately 93% of the population identify as ladino, and 7% as *Chorti*, Maya or indigenous. Across the department 34% of the population live in poverty, 21% are illiterate and 25% of the female population has never been to school (MSPAS, INE, ICF International, 2017).

The population cultivates sorghum, vegetables and coffee as their main livelihood, although many households also have smallholdings raising pigs, cows and other livestock. Work can also be found on the large plantations that produce sugar cane, cacao, bananas and other fruits and hire labour on a piecemeal basis (FEWS NET 2017). Migration is common, either to the sugarcane and coffee plantations on the coast

of Guatemala or to Honduras and El Salvador (*ibid*). The population is susceptible to vulnerabilities related to climate change as well as structural patterns of exclusion. Chiquimula lies in the '*corridor seco*', a dry climate zone running through Central America from Guatemala to Panama that experiences severe drought and the effects of *el Nino*. With limited rainfall and the scarcity of public water resources, Chiquimula has been identified as being at high risk of desertification (MARN 2013). Data on the incidence of malnutrition (collected by, for example, FAO and the World Food Programme in 2016) is clear evidence of the food insecurity and related vulnerabilities faced in the department. According to the most recent DHS, 56% of children under the age of five present with chronic undernutrition and 25% with severe undernutrition. The double burden of malnutrition is also evident in the department with 31% of women aged 15-49 years old being overweight and 16% obese (MSPAS, INE, ICF International, 2017).

Of women aged 15-49 years, 41% reported being unable to access health facilities because of the distance between their community and the point of service delivery, and only 42% of births were attended by a medical professional (MSPAS, INE, ICF International, 2017). Chiquimula also has one of the highest levels of gendered-based violence in Guatemala. In the DHS, 18% of women aged 15-49 reported that a man could justifiably hit his wife or girlfriend because she argues with him; goes out without telling him; does not take proper care of their children; denies him sexual relations; or has burnt the food. Only 22% of women who experience violence will seek help after the event (MSPAS, INE, ICF International, 2017).

The department has good access to and coverage of communication platforms. In the latest DHS, 91% of men and 82% of women aged 15-49 years indicated that had access to either a newspaper, radio or television at least once a week (MSPAS, INE, ICF International, 2017).

Marasxco

Marasxco is located 20 minutes by car from Chiquimula City, the capital of the department. The area has always been arid and Marasxco literally means 'dry land' in the local language, Chorti. The lack of water results in multiple challenges for the community. In 2010, it was reported that there were nearly 7,000 people living in close to 1,000 households in Marasxco, all of which had to share one water pump serving various water points across the community (Gomes 2010). The majority of the population are engaged in subsistence or commercial farming, and inadequate water resources have resulted in multiple poor harvests. Many families have taken on debt that they are unable to repay and have been forced to sell their land.

Annex 6 – Topic guide and consent forms

Topic guide

Defining adolescence

- How to define this concept? (childhood, adolescence, adulthood)
- Bio-socio-cultural markers of adolescence
- Rituals and transition markers (e.g. rites of passage toward becoming an adult, etc.)?
- Validity and usefulness
- Does the existence/length of adolescence change with context (e.g. during drought, civil unrest etc.)?
- Recreational activities of adolescents? Routine daily life activities?

INGO/governmental policy and programming

- *Background / Overview*

Work with adolescents: Where? National/District levels? What programmes/interventions here and why?

For which types of adolescents (gender, age, etc.)? Other typologies (out of school, teen mothers, etc.)?

Work on nutrition: Where? National/District levels? What programmes/interventions here and why?

- *Policy implications of working with adolescents*

National policy around adolescents/nutrition

National sexual and reproductive health policies for adolescents (e.g. comprehensive sex education in school?)

Social accountability for adolescent girls/nutrition

Areas for collaboration with government? NGO coalitions? Etc.?

Health (general)/sexual and reproductive health (SRH) issues

- *Social, cultural and economic barriers to health services for adolescents*

Socio-cultural norms

Household and village (priorities and negotiation)

Informational sources (e.g. social network, Internet, peers, etc.)

Social relationships, decision making continuum and agency to act

Role of healthcare workers/Bias in access for underage or unmarried girls (e.g. contraceptive services)

- *Social, cultural and economic barriers to SRH services for adolescent girls*

Socio-cultural norms

Household and village (priorities and negotiation)

Informational sources (e.g. social network, Internet, peers, etc.)

Social relationships, decision making continuum and agency to act

Role of healthcare workers/Bias in access for underage or unmarried girls (e.g. contraceptive services)

- *Drivers and consequences of teen pregnancy*

Perception of issues

Increasing or decreasing occurrence (why?)

Consequences for adolescent girls (school drop-out, marriage, etc.)

Food and nutrition

- *Perceptions of food and nutrition*

Food status (e.g. high/low status foods, high/low status locations for eating) – the anthropology of food

Views and attitudes about proper nutrition

Level of knowledge

Food/nutrition seeking practices

Access barriers (availability, cost, time, preparation, location of market)

Food taboos for adolescent girls (portion size, speed, order of eating, food status, etc.)

Food taboos for pregnant and lactating women (change in diet, hot/cold observance, do's and don'ts)

- *Perception of adolescents' participation in healthy eating*

Acceptability, appropriateness, feasibility, potential

Advantages/disadvantages

Existing participation mechanisms/networks

Practical suggestions (case study?)

Education

- *Perceptions about adolescent education*

Decision making and authority to act for starting/stopping school (who?)

Gender norms/Family differences in priority

Reasons for adolescent girls and boys to drop-out

Timing/frequency of drop-out

Urban/rural differences?

Consequences? Alternatives?

School feeding services offered? To who? Where?

Out-of-school feeding services offered in community? To who? Where?

Child rearing and adolescent influencers

- *Impact of family/peers/communal setting for raising children*

Background on family situation (raised by mother, grandmother, etc.)

Who makes decisions regarding child/adolescent care

Key adolescent behaviour influencers (both inside, e.g. siblings and outside the family, e.g. actor, singers, etc.)

Family/peers with the most impact/authority over adolescents

Importance of peers as adolescent influencers?

Other key influencers (e.g. religion)?

Aspirations for adolescents (e.g. complete school, parenthood, career, etc.)?

Messaging

- *Messaging channels / Access to adolescents (particularly girls 10-19 yrs.)*

Popular (in general) communication channels (e.g. TV, radio, Internet, etc.)

Adolescent specific delivery mechanisms/communication channels

Best way to access the programme intended beneficiaries

Innovative/virtual methodologies (e.g., SMS, Smartphones, Facebook, etc.)?

Lessons learned, good practices, impact/outcomes achieved

Pitfalls, challenges and limitations

Adolescent groups excluded from messaging? Access barriers?

How to reach the *hardest* to reach? (e.g., girls not in school, married, working)

Case study (most impactful platform?)

Research needs

- *Areas where there is lack of data / Need for more data on working with adolescents*

DHS data/MICS data: Gaps? Inconsistent/confusing reporting?

Research ideas? Requests?

Location?

Target group/Age/Gender?

Theme (programmatic focus)? Programmatic challenges that require further understanding?

Neglected areas which require advocacy/increased advocacy?

- *Knowledge sharing*

How best to share data/present findings?

How best to package data? Suggestions?

IT/communication context (lessons learned and future considerations)

- *Communication channels*

Urban vs. rural context

Appropriate/available technologies and platforms (SMS, mHealth, radio and TV, Internet, etc.) – distinction between in-person and via remote technology

Future capabilities/New opportunities to explore

Target populations (age, gender, ethnicity, etc.)

Thematic programming (SRH, nutrition, FP, etc.)

- *Collaboration*

Partners in previous or current projects

Potential partners – suggestions?

National IT, communication policy (e.g. media freedoms in general, restrictions on media, etc.)?

- *Challenges*

From previous projects/studies?

Communication projects attempted and failed (Why?) Lessons learned?

Success stories (case study)

- *Recommendations*

Appropriate/suggested methods for reaching adolescents (adolescent girls?)

Best methods to reach the hard to reach? (out of school, married, working, etc.)

- *Research*

Gaps in communication strategies? Where? Why?

Interesting/innovative topics for further investigation

CORPORATE RESPONSIBILITY (e.g. private food sector, garment industry)

Consumer research expertise (target populations?)

Consumer related questions

Delivery channel inventory

Understanding local market (contextually relevant marketing needs)

Actions private sector can take (in consideration of needs of adolescent girls?)

Behaviour change communication (BCC) and message development

Promotion of good nutrition / healthy cooking practices

Collaboration/partners in industry and social accountability

Documentation & other requests

- *Documentation requests*

Do you have any project documentation you can share?

Do you have any recommendations for literature to review? Collected for this project?

- *Other organisations working with adolescents and/or nutrition (free list)*

Existing programmes on AG/nutrition?

Potential areas of collaboration

Adolescent nutrition to follow another ongoing activity, or could lead (e.g. and be followed by RSH)?

- *Suggestions for partnerships? WFP?*

Informed consent form (18+ years)

WFP Partnership for Adolescent Nutrition: Formative Research

Background to the study

The education, health, social and economic needs of adolescent girls are increasingly recognised as areas that deserve focused attention and resources, and many national development frameworks fail to account for adolescent girls as valuable to their countries' development. There is however, a lack of evidence to guide the development of strategic nutritional messages and interventions for this specific target groups. The Global Goal 'Zero Hunger' established a critical window of action and unique opportunity for the World Food Programme (WFP) and Knorr, through its 'Force to Good' social mission, to play a leadership role and highlight the different entry points to better address the needs of this important target group and achieve long-term impact at scale.

Objective of the study

Gaining an understanding of how to effectively reach adolescents is an essential starting point for assessing how nutrition specific and nutrition sensitive interventions can be delivered and best related to other components of the 'adolescence equation' including, for example, reproductive health care and livelihood skills. The objective of this study is to learn from INGO stakeholders, the private sector, relevant government ministries (e.g. Ministry of Health and Social Assistance, Ministry of Education), adolescents and their caregivers about adolescent nutrition needs in Guatemala and how we can better communicate with this age group to improve their nutritional status and help them to lead healthier lives.

Interview/Focus Groups/Adolescent Workshops

For this purpose, Primary Investigator (PI) would like to talk to you about matters relating to adolescent nutrition. Informal interviews, focus group discussions and/or adolescent workshops will last for approximately one hour to one hour and a half. Your participation in this research is voluntary. You have the right to withdraw from the discussion at any time without reason and without penalty. There is no cost associated with your participation. We believe there is no risk to you although it is noted that there may be aspects of your participation in this research that involve risks which are currently unforeseeable.

We will ensure that your information, opinions and experiences are kept confidential and will only be used for the purpose of the study outlined. We will not use your name. You may ask any questions related to the study and we will answer these questions to your satisfaction.

With your permission, we may make an audio recording of our discussions for our records. This will be destroyed at the end of the study. With your permission, we may also take a photograph of you. These will be used for the purpose of the current study and may be included in academic publications and other material for WFP and Anthrologica. If your photograph is published, you shall not be identified by name and the usual confidential process shall be followed.

In regard to collecting information for this study, we would greatly appreciate your help and therefore seek your consent and cooperation. If you have any questions about this study, you may contact WFP Programme Assistant Ana Isabel Galindo – a.galindo@wfp.org or +50240060378. If you have any concerns regarding your participation you may contact the ethics review committee for Guatemala at the Universidad Valle in Guatemala Ciudad – eticaccss@uvg.edu.gt.

INFORMED CONSENT

I have been informed in detail about the purpose and nature of this study.

I have received satisfactory answers to all my questions relating to this study.

I have decided that I will participate willingly and can withdraw at any time for any reason.

I give my informed consent to participate in this study and have my photograph taken as part of the study.

Name of Participant

Signature

Date

Name of Witness

Signature

Date

As a witness of this letter, I ensure that I have the above information has been accurately conveyed to the participant. I also ensure that they have decided to participate in this study freely and willingly.

Adolescent assent form (10-17 years)

[Information for individuals under the age of 18 who are being asked to take part in formative research].

WFP Partnership for Adolescent Nutrition: Formative Research

WHY AM I BEING ASKED TO TAKE PART IN THIS RESEARCH?

You are being asked to take part in a research study about adolescent nutrition in Cambodia and to share your thoughts on the best methods that organisations like the World Food Programme can use to talk to you about your nutrition needs. You are being asked to take part in this research study because you are a person between the ages of 10 and 17 years-old and can provide important information on your personal thoughts and experiences. If you take part in this study, you will be one of several adolescents also participating in this study.

WHO IS DOING THE STUDY?

The person conducting this study is called the Primary Investigator (or PI) and, together with the assistance of a local Research Assistant, will be asking you questions. The local Research Assistant will help to translate your words for the PI so you may speak in whatever language you feel most comfortable.

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, we hope to learn about your nutritional needs and experiences and about how you prefer to receive communications from, or be contacted by, organisations like the World Food Programme with information.

WHERE IS THE STUDY GOING TO TAKE PLACE AND HOW LONG WILL IT LAST?

The study will be take place in your community. You may be invited to attend a discussion group or participate in group activities with other adolescents, led by the PI and the Research Assistant. Each of these sessions may take between 45 minutes to an hour. You may also be asked to participate in one interview session with the PI and the Research Assistant if needed. These interviews will last approximately 30 minutes to 1 hour.

WHAT WILL I BE ASKED TO DO?

You will be invited to participate in a group discussions or individual interview about your daily experiences and practices with food, and to share ideas about your nutrition requirements. You will also be asked to share your ideas about how organisations like the WFP can better communicate with you.

If you take part in this study, you will be asked to participate in discussions with the PI and the Research Assistant, or to participate in activities with other adolescents of the same age. If you agree that you do not mind, I will record what we say during the discussion so that I can be certain about exactly what your ideas are and go back and listen to them carefully again to make sure I have not missed anything. Your name will not be on the tape, and no one else will be able to figure out who you are after it is recorded. Only I will be able to have that information, no one else. Later on, when the tapes are transcribed or results published, no one will be able to identify you. With your permission, we may also take photographs during group activities.

Your participation in this project is voluntary, this means that you do not have to participate in group discussions and you do not have to answer any of my questions. If you do want to participate now, but change your mind later on, then you will be excused from the study without penalty. No one will be mad at you for not participating or choosing not to complete the research. You can ask me questions at any time if you have any concerns about this project.

WHAT THINGS MIGHT HAPPEN IF I PARTICIPATE? WHAT IF I CANNOT ANSWER THE QUESTIONS?

No harm will come to you for participating in this research. We are interested in learning about your personal thoughts and experiences so you will be able to answer questions or participate in group activities based on these experiences. However, if you do not have a response to a question or do not wish to participate in an activity, you do not have to and no one will be made at you for choosing not to answer/participate.

WILL SOMETHING GOOD HAPPEN IF I TAKE PART IN THIS STUDY?

We cannot promise you that anything good will happen if you decide to take part in this study.

DO I HAVE TO TAKE PART IN THE STUDY?

You should talk with your parent/guardian, or anyone else that you trust about taking part in this study. If you do not want to take part in the study, that is your decision. You should take part in this study only because you really want to volunteer.

IF I DON'T WANT TO TAKE PART IN THE STUDY, WHAT WILL HAPPEN?

If you do not want to be in the study, nothing else will happen.

WILL I RECEIVE ANY REWARDS FOR TAKING PART IN THE STUDY?

You will not receive any reward for taking part in this study; however, if you participate in group activities that produce photos, artwork, etc. you may be given a copy of your work and you may see your work reproduced for reports that will circulate in Guatemala and internationally.

WHO WILL SEE THE INFORMATION I GIVE?

Your information will be added to the information from other people taking part in the study so no one will know who you are.

CAN I CHANGE MY MIND AND QUIT?

If you decide to take part in the study you still have the right to change your mind later. No one will think badly of you if you decide to quit.

WHAT IF I HAVE QUESTIONS?

You can ask the research team any questions about this study at any time. You can also talk with your parent/guardian or other adolescents and adults that you trust about this study. If you have any questions about this study, you may contact WFP Programme Assistant Ana Isabel Galindo – a.galindo@wfp.org or +50240060378. If you have any concerns regarding your participation you may contact the ethics review committee for Guatemala at the Universidad Valle in Guatemala Ciudad – eticaccss@uvg.edu.gt.

Assent to Participate

I understand what the person running this study is asking me to do. I have thought about this and agree to take part in this study.

Name of Participant

Signature

Date

Name of Parent/Guardian

Signature

Date

As a witness of this letter, I ensure that I have the above information has been accurately conveyed to the participant. I also ensure that they have decided to participate in this study freely and willingly.

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