

USAID/Growth through Nutrition

ADOLESCENT GIRL NUTRITION SBCC STRATEGY

Adolescence, the period between the ages of 10 and 19 years old is characterized by a growth spurt as young people transition from childhood to adulthood. It is a period of remarkably rapid growth: up to 45% of skeletal growth, between 15% and 25% of adult height is achieved during adolescenceⁱ, and up to 37% of total bone mass may be accumulatedⁱⁱ. Although global efforts to improve children’s nutrition have focused on the first 1000 days, nutritional needs are the greatest during adolescenceⁱⁱⁱ. For this reason, adolescence is another “window of opportunity” to improve the nutritional status of children^{iv,v}.

Growth through Nutrition’s adolescent nutrition program prioritizes adolescent girls because stunting, pregnancy and childbirth in adolescent girls not only impacts their own nutrition outcomes but those of their children as well, contributing to a cycle of intergenerational undernutrition^{vi}. The World Health Organization (WHO) issued recent guidance for program interventions to improve nutrition outcomes¹. These are:

1. Promoting healthy diets in adolescents
2. Providing additional micronutrients through fortification of staple foods and targeted supplementation in adolescents
3. Managing acute malnutrition in adolescents
4. Preventing adolescent pregnancy and poor reproductive outcomes
5. Promoting preconception and antenatal nutritional care in adolescents
6. Providing access to safe environment and hygiene for adolescents
7. Promoting physical activity in adolescents
8. Prevent and manage disease in adolescents

The Growth through Nutrition project recently implemented two qualitative research studies to gain more insights into maternal and adolescent girl nutrition-related practices in their home environments^{2,3}: one a maternal nutrition trials of improved practices (TIPs) study and the other a formative study. The studies focused primarily on the first two of the eight program intervention areas identified by WHO: promoting healthy diets and providing additional micronutrients. In addition, the studies focused on the enabling environment in the household, particularly relationships between adolescent girls and their parents, and in the community, particularly relationships between adolescent girls and their friends. Although the formative research study reviewed girls’ eating practices during menstruation, other areas of reproductive health were not explored in the research. Adolescent pregnancy and its prevention was also not explored in the formative research study.

The findings from both studies inform the present SBCC strategy to improve adolescent girls nutrition-related practices. A summary of the findings of these studies is included in the Appendices of this report.

¹ Guideline: implementing effective actions for improving adolescent nutrition. Geneva: World Health Organization; 2018. License: CC BY-NC-SA 3.0 IGO.

² Improving Maternal Nutrition Practices: Consultations and Trials of Improved Practices with Women and their Families in Ethiopia’s Oromia, Amhara and SNNPR regions. USAID/Growth through Nutrition Project. June 2018.

³ Adolescent girls’ nutrition-related practices in the Amhara, Oromia, SNNP, and Tigray regions of Ethiopia: Formative research findings and recommendations. USAID/Growth through Nutrition Project. May 2018.

Feasible Adolescent Girl Nutrition Behaviors

Growth through Nutrition’s qualitative research has revealed that adolescent girls in the project zone of intervention tend to eat the same foods as their mothers and share meals with their mothers. The adolescent girl nutrition SBCC strategy will therefore promote most of the same nutrition-related behaviors for adolescent girls, while they are at home, that are promoted for women who are pregnant or breastfeeding.

Priority interventions will focus on the following nutrition behaviors that these research studies indicated are *feasible* for adolescent girls and their families. Feasible nutrition behaviors for girls throughout their adolescence are:

Adolescent Girl Nutrition	
Increase quantity of food intake	Increase food intake through eating at least one snack each day in addition to regular meals. (The easiest snacks for women are grain products, such as toasted mixes of cereals and <i>injera</i> .)
	Increase consumption of staple grains (not sweet foods) along with specific nutrient-rich foods that are local and seasonal to ensure a minimum intake of calorie.
Improve food diversity	Eat an animal-source food (eggs, milk, yoghurt or cottage cheese) every day.
	Add dark green leafy vegetables (primarily collard greens/kale) to every meal if possible.
	Consume other vegetables and fruit more frequently.
	Add more telba (flax seed) or other local seeds or nuts to the regular diet in geographic areas where available.
Avoid sweet beverages	Avoid drinking Mirinda, Pepsi, Coca Cola and other sweetened beverages (coffee with sugar is fine during coffee ceremonies).
Take Iron supplements	Take Iron supplements if they are distributed to you at school.
Manage nausea and food aversion during menstruation	Eat smaller meals and frequent snacks, such as staple grains along with specific nutrient-rich foods that are locally available, if nausea or loss of appetite are problems during menstruation.

Priority Actors and Audiences for Adolescent Girl Nutrition

Based on the qualitative research findings and recommendations, important actors for the adolescent girl nutrition SBCC strategy are indicated below.

Adolescent Girl Nutrition SBCC Strategy Priority Audiences

Primary actors

- Adolescent girls 10 – 14 years old
 - In-school
 - Out of school
- Adolescent girls 15 – 19 years old
 - In-school
 - Out-of-school
- Mothers of adolescent girls
- Fathers of adolescent girls
- Peers/friends of adolescent girls

Supporting actors

- Teachers
- Health Extension Workers and Health Facility Nurses
- Religious leaders
- Agriculture extension workers
- Women and children’s affairs representatives
- Social workers
- Youth groups

Important Facilitators and Barriers for Improved Adolescent Girl Nutrition Practices

Formative research conducted under the USAID/ENGINE project and the Growth through Nutrition project identified a number of facilitators and barriers to improved adolescent nutrition practices. These are summarized in Table 4 below.

Table 4. Main facilitators and barriers for improved adolescent girl nutrition practices

Facilitating Factors	Constraining Factors
<ul style="list-style-type: none"> • Perceived benefits of good nutrition • School education • Adolescent girls’ self-efficacy in family and community roles • Parents and family Support • Peers and friends • Neighbors • Health Extension Workers • Teachers • Other people who are trusted sources of nutrition information • Home gardens 	<ul style="list-style-type: none"> • Actual or perceived poverty and limited resources • Limited access to diverse foods • Socio-cultural expectations for families to eat the same food together • Parents • Nutrition is not prioritized in the management of household resources • Low knowledge or awareness of nutrient-rich foods and the dietary needs of adolescent girls. • Gender constraints in households (e.g. prioritizing men over women and adolescents when there is limited food, gender-bound concepts of feminine beauty) • Food taboos related to menstruation and controlling girls’ sexual urges

- Neighbors
- Peers

Messaging and Positioning for Adolescent Girl Nutrition SBCC Program Interventions

Growth through Nutrition’s SBCC programming for adolescent girls and their families will:

Promote girls’ increased consumption animal source foods (ASF)

- Discourage beliefs that these foods incite early sexual debut and promiscuity among girls, or to diminish a girl’s beauty because they may make her fat or possibly too strong), developing and testing creative concepts that will help to combat these taboos where they exist.
- Focus messaging on eggs as a healthy option for girls to keep and prepare for meals for themselves and their families. Develop messaging and to help girls make pro-nutrition decisions around what to buy with the money they earn from selling eggs.
- Develop a “whole family” approach for messaging and materials that capitalize on another social expectation: that, generally, families should eat together and should eat the same foods. A “whole family” approach to improving adolescent girls’ nutritional outcomes would include interventions such as family counseling in facilities as well as during home visits (i.e. counseling families, or girls together with their parents, rather than solely counseling individuals).
- Develop and test materials promoting communication between fathers and daughters about decision-making related to using agricultural income to purchase animal source foods for the family.

Promote girls’ increased consumption of a greater diversity of nutrient-rich foods in their daily diets

Link ASF to the aspirations of parents and girls for adolescent girls to do well in school and to have successful futures. Position nutrient-rich foods as helpful for adolescent girls’ concentration, intelligence and doing well in school and in life.

- Develop and test the concept of the sun as the metaphor for adolescent girls’ strength, intelligence, leadership in their family (“illuminating the way”), value, femininity, and beauty. In this concept testing, test the conceptual links between the creative concept of the *sunflower* (first one thousand days) and the *sun* (girls between the ages of 10 – 19 years old).
 - Creative concept testing around the sun in messaging and materials should include trying this concept in materials that promote improve agricultural practices for adolescent girls such as: growing nutrient-dense vegetables in kitchen gardens, using improved seed varieties and fertilizers in kitchen gardens, and adopting improved planting methods (e.g. permagardens or inter-cropping) for nutrient-rich vegetables.
 - “Be the sun in your family” is an example of a message that might be used to also promote girls’ improved practices in raising chickens, practicing good hygiene and encouraging family members to practice good hygiene (especially washing hands with soap and water/soap and ash at critical times), keeping some of the chickens’ eggs for family consumption, and making pro-nutrition decisions with income generated from selling eggs at the market.
- Develop creative concepts, messages and materials that can be easily embedded in girls’ friendships and in the leisure and work activities girls enjoying doing with their friends:

Adolescent girls prefer to confide in their friends, rather than their mothers or fathers, about secrets and intimate topics. Growth through Nutrition will explore creative concepts and messaging around adolescent girl nutrition as “the best-kept secret” (i.e. eating nutrient-rich foods) and designing a fun and innovative set of interpersonal communication materials for adolescent girls to enjoy using with their friends. These may be games, songs, puzzles, riddles, comic books, or picture books that focus on nutrition information and improved nutrition practices conveyed in an entertaining way, and in formats that are designed for adolescent girls to use or carry with them as they do housework, fetch water, go to the market, or sit and chat with their friends. Improved nutrition practices during menstruation, and dispelling the association between ASF with promiscuity or becoming less physically attractive, are examples of the kinds of constructive “nutrition secrets” that girls can enjoy sharing with one another.

Maximize adolescent girls’ healthy and supportive interpersonal relationships with their parents

- Develop new interpersonal communication materials for parents of adolescent girls to help mothers and fathers integrate improved nutrition practices into their regular parental counseling sessions with their daughters. The materials should be simple and, given relatively low literacy rates in rural Ethiopian communities, they should be mainly pictorial in their design.
- Messaging should position improved nutrition practices as one of the things adolescent girls should do to stay safe, avoid misfortune (e.g. specifically rape and/or early pregnancy), and to be successful in school and in life. This includes practices such as increasing the consumption of ASF and other nutrient-rich foods and making pro-nutrition choices around eggs (how much to keep for family consumption, what to do with the money earned from selling eggs).
- Develop materials that are designed to appeal to parents’ placing importance on information that is modern and credible. These materials may be disseminated through teachers to girls in school- and are designed to take home.
- Leverage adolescent girls’ existing influence in their families. Growth through Nutrition will develop take-home materials that are designed to appeal to parents’ placing importance on information that is modern and credible. These take-home materials will be designed to complement existing nutrition materials already developed by UNICEF and the Government of Ethiopia for primary and secondary students (girls and boys) with a focus on filling in gaps.
- Link Growth through Nutrition’s school-based nutrition-sensitive agriculture initiatives, such as school gardens, with nutrition promotion.

Priority Communication Channels and Platforms to Reach Adolescent Girls and their Influencers

Messaging and materials design ideas include:

- Branding with a credible information source, such as the Ministry of Health, the Ministry of Education, or possibly a religious authority.
- Identifying and using a positive role model for adolescent girls in nutrition SBCC programming. This role model may be a well-known and respected local or national celebrity who is a young woman—or possibly the creative development of a fictional character who has the ideal qualities of a respected and credible young woman— as the source of information about adolescent girls’ nutrition.

- Qualitative research identified the sun as being generally perceived in the communities supported by Growth through Nutrition as having feminine qualities associated with strength and leadership: rather than being fragile or weak, the sun is vibrant, bright, illuminates everything and everyone. The sun is above others. This research finding around perceptions of girls and women being sources of light (illumination) for their families is consistent with some of the other research findings that suggest that adolescent girls are able to influence their families in part because their parents perceive their daughters to have new information or modern and progressive thinking.

Leveraging adolescent girls' existing agency in their families

Nutrition SBCC programming will focus on promoting areas where adolescent girls already have some authority and control. Specifically, nutrition SBCC programming can include content, messaging, materials and activities that include:

- Offering recipes and new cooking techniques to improve girls' decision-making and preparation of more nutrient-rich meals for themselves and their families;
- Promote the use of handwashing with soap and water (or ash and water) at critical times, including after handling cow dung (used for cooking fuel), including making and using tippy taps, and encouraging other family members to adopt these practices (using creative concepts that employ the symbolism of the sun and “illuminating” the family);
- Specific information to help girls improve chicken raising and chicken egg production (information and materials promoting chicken raising should include a special emphasis on keeping younger siblings away from chickens and chicken feces) separated from young children); grow nutrient-rich vegetables in kitchen gardens using improved agricultural inputs and techniques, and improving decision-making around the use of income earned from selling eggs or other agricultural produce at the market (consider promoting the use of the “Earn & Buy” game in schools and through other platforms to reach adolescent girls (see next recommendation).

Prioritizing school-based and community platforms to reach adolescent girls with nutrition SBCC programming

Nutrition SBCC strategies aimed at improving nutrition outcomes for adolescent girls should prioritize the following platforms:

- Adolescent girls' homes
- Schools, classrooms and school nutrition clubs
- Churches and mosques
- Health centers and health posts
- Well-known, recognized gathering places for community assemblies or where adolescent girls may be known to gather in their communities for special meetings, or for leisure and entertainment.
- Leverage with other organizations and programs already working with organized groups to support adolescent girls (Growth through Nutrition can explore possible collaboration with Pathfinder or other groups who are implementing peer education trainings for young adolescents, or livelihoods/vocational training programs for adolescents). Where possible, adolescent girl nutrition SBCC content and materials can be delivered through these existing platforms with cooperation from other USAID-funded programs.

3. What We Know about Adolescent Girls' Nutrition-Related Behaviors

Defined as the period between the ages of 10 and 19 years old, adolescence is characterized by a growth spurt as young people transition from childhood to adulthood. Adolescence is divided into three developmental stages based on physical, psychological and social changes: Early adolescence, between 10/13 and 14/15 years; mid adolescence, between 14/15 and 17 years; and late adolescence, between 17-21 years^{vii}. It is a period of remarkably rapid growth: up to 45% of skeletal growth, between 15% and 25% of adult height is achieved during adolescence^{viii}, and up to 37% of total bone mass may be accumulated^{ix}. Although global efforts to improve children's nutrition have focused on the first 1000 days, human nutritional needs are the greatest during adolescence^x. For this reason, adolescence is another "window of opportunity" to improve the nutritional status of children^{xi,xii}.

Adolescent nutrition programs prioritize adolescent girls primarily because stunting, early pregnancy and childbirth among adolescent girls not only impact their own nutrition outcomes but those of their children as well, and contribute to a cycle of intergenerational undernutrition^{xiii}.

According to the 2016 Ethiopia Demographic Health Survey, thirteen percent of adolescent girls between the ages of 15 and 19 years old have already begun childbearing; the median age of marriage in Ethiopia is 17.1 years for girls. The proportion of adolescent girls who have begun childbearing rises rapidly with age: while 2% percent of girls who are 15 years old have begun childbearing, 28% of girls who are 19 years old have done so. Childbearing is more common among adolescent girls who live rural areas than it is among those living in urban areas (15% versus 5%, respectively). Meanwhile, education is inversely related to childbearing among adolescent girls: nearly 3 in 10 (28%) of adolescent girls between the ages of 15 and 19 years old with no education have begun childbearing compared to 12% of their cohort who have attained primary education, and 4% of their cohort who have attained secondary education. Wealth is also inversely related to childbearing among adolescent girls: 22% percent of those in the lowest wealth quintile have begun childbearing compared to 5 percent of those in the highest quintile.

Improving the nutrition of adolescent girls requires clear insights into the constraints as well as the opportunities that lie within the socio-cultural context of girls' access to and consumption of diverse quality foods. Formative research under the USAID/ENGINE project highlighted the challenges of girls' limited resources, lack of awareness of their nutritional needs, and the socio-cultural expectations of rural Ethiopian societies for families to eat the same foods together- with husbands and fathers being prioritized for larger quantities and more nutrient-rich foods when there is not enough for everyone in the household to have an equal share⁴. At the same time, the research revealed that older adolescent girls enjoy the interest and support of their parents, exert some influence in their homes, are interested in gaining more financial independence by earning income, and would enjoy bringing more diversity into their monotonous diets.

3.1 Adolescent girls' daily lives and relationships with family members and friends

Most adolescent girls are engaged in household chores as well as duties outside of their homes. The qualitative data shows that girls in vulnerable kebeles may be doing more household chores than girls in non-vulnerable kebeles. Younger girls (10-14 years old) appear to be doing more housework than older girls (15-19 years old), especially tasks such as cleaning house, washing clothes, and preparing and serving coffee (coffee ceremonies).

⁴ Adolescent girls' diet and nutrition practices and their determinants: A report on formative research findings and recommendations for Social and Behavior Change Communication Programming. USAID/ENGINE project; Save The Children and The Manoff Group, March 2017.

Outside of their homes, girls fetch wood and water, work with their fathers in the fields, and go to market with their mothers. After chores are done, girls who are in school will study. Leisure time may begin in the late afternoon around 3 or 4 pm, although during the rainy season and times of harvest, girls may be busy working with their fathers in the fields.

Many adolescent girls enjoy a close relationship with their mothers. Mothers take time to counsel their daughters on life, making wise choices (especially when it comes to chastity), and doing well in their studies (for those whose daughters are in school).

Adolescent girls' fathers are not at home as much as their mothers are. Adolescent girls may only see their fathers briefly during meal times (when some fathers may eat alone rather than together with the girls and other family members). Girls therefore have fewer opportunities to have conversations with their fathers at home. Nevertheless, some girls work with their fathers during planting and harvest times or carrying meals to their fathers when they are working in the fields. When they do have an opportunity to talk with their fathers, fathers-- like mothers-- counsel them on avoiding places, people and conduct that could lead to consensual sex or rape, and (for those in school) focusing on their studies.

Friends are an important part of adolescent girls' lives. Girls go to worship at the local church or mosque with their friends, and they do housework and chores outside the home, such as carrying water, with their friends. Whether working or at leisure, girls enjoy talking with their friends. Romance, menstruation and sex are topics that girls prefer to discuss with their friends.

3.2 Adolescent girls' typical diets

Adolescent girls typically eat what the rest of the family eats, and they usually share meals with their family members. Girls' diets consist of injera with shiro wot, or kale, bread or kita. Kocho is a common part of girls' diets in SNNPR while pasta, macaroni and ambasha are more commonly reported by participants from Tigray. Most of these foods are staple foods with low nutritional value other than calories. Kale and shiro (chick peas), however are higher-nutrient foods. Some girls reported eating animal source foods, including meat (especially on holidays) and occasionally eggs. Girls may deliberately avoid animal source foods in some places, especially in the Amhara region, because they may be perceived to elicit promiscuity, or to make girls less attractive by making them "fat" or possibly too strong. The most common reason for not consuming animal source foods, however, was simply that they are not available in the household.

Adolescent girls eat approximately the same quantities that their mothers do, although the younger girls (10-14 years old) may eat a bit less than their mothers. Girls' fathers often eat greater quantities than other family members, and the reason for this is that men are said to do harder physical work and also that men have the power, authority and respect in their families and are thus prioritized for larger quantities of food and animal source foods. Sometimes families eat together, sometimes meals are separated by gender: fathers may eat alone, or together with their adolescent sons, mothers and their adolescent daughters and younger children may all eat together.

Fasting

Older girls (15-19 years old) generally follow their parents' fasting practices. Like their parents, Protestant girls usually do not practice any fasting. Muslim girls follow the practice of fasting one month in the year. Orthodox Christian girls follow the weekly fasting practices, and the more common annual fasting periods that precede the major religious holidays. The younger Muslim and Orthodox Christian girls (10-14 years old) may try to follow their parents' fasting practices, but they are not expected to be fully compliant, and indeed their families sometimes discourage them from adhering to the full duration of a fasting period because their parents believe this would be harmful to their health or their ability to do well in school.

Menstruation

Menstruation is the time to imbibe in- or to avoid- hot beverages, depending on how an adolescent girl and her family or community perceive the menstrual flow. Where menstruation is perceived to be a way for the body to get rid of impurities, girls drink a lot of hot beverages (especially tea and also coffee) as these are believed to increase the menstrual flow. In these cases, drinking hot beverages is perceived to be a health-conscious behavior. Where menstruation is simply perceived as blood loss, adolescent girls avoid drinking hot beverages because they are believed to increase the loss of blood, and to exacerbate cramps and nausea from excessive bleeding. Oily foods, animal source foods and spicy foods are also commonly believed to increase menstrual flow and may therefore be consumed or avoided by adolescent girls for the same reasons that they consume or avoid hot beverages. These findings were observed across regions.

3.3 Adolescent girls' agency and influence around the production, preparation and serving of food

Overall, adolescent girls appear to have a good deal of influence in their families when it comes to deciding what to prepare for the family meals, although this influence is often constrained by what foods are actually available in the home. In many cases, however, adolescent girls across regions, religions and age groups reported having some influence on what is purchased outside of the home. Girls and fathers also occasionally reported that when girls ask their fathers to buy certain foods for the family, and if their fathers have the means, they will do so. When they accompany their mothers to the market, or go on their own, they may exert some influence on the decision of what foods to buy for the family to eat. Girls frequently mentioned being the ones who have the responsibility of raising chickens in the family and reported that they may sell the eggs and use the money as they wish. Few girls reported keeping the eggs for their own consumption or for family meals.

Some fathers listen to their advice when they make suggestions about a particular variety of seed or fertilizer- presumably because their fathers believe they have received this new or modern information from school or from another reliable source.

3.4 Gender-bound social expectations of adolescent girls and their roles

In the rural Ethiopian communities covered by the Growth through Nutrition project, adolescent girls are perceived to be fragile, weak, and soft. Much of the communication between girls and their parents involves their parents counseling their daughters to avoid the company of boys and men, who society perceives to be strong, aggressive, and potentially dangerous to girls. Parents want their daughters to remain chaste and modest, and fear that they will be promiscuous. In places where there are food taboos for adolescent girls, they appear to be have the function of helping to control girls' sexual urges. Animal source foods in particular, as well as spicy foods, are associated in some places in Amhara region as foods that could provoke early sexual debut and promiscuity and are thus foods that adolescent girls should avoid. In other regions, such as Oromia, similar food taboos exist but are recognized by many of the study participants from these areas, as being old-fashioned taboos that are no longer followed in modern society.

Fragility, weakness and softness are closely associated with social ideals of feminine beauty. For this reason, animal source foods are sometimes avoided by girls because they fear they will become "fat" or perhaps too strong, and thus not in line with societal expectations of feminine beauty.

Parents listen to the information that their daughters bring home from school. Should their daughters suggest nutritious crops to grow in the kitchen garden, their parents would not object.

ⁱ Rees JM, Christine MT. (1989). Nutritional influences on physical growth and behavior in adolescence. In: Adams G (ed). *Biology of adolescent behaviour and development*. California: Sage Publications.

ⁱⁱ Key JD, Key LL Jr. (1994). Calcium needs of adolescents. *Curr Opin Pediatr*; 6:379-82 K

ⁱⁱⁱ Lifshitz F, Tarim O, Smith MM. (1993) Nutrition in adolescence. *Endocr Metab Clinics North Amer*; 22:673- 83

^{iv} Story, M. and Stang, J. (2005) Nutrition needs of adolescents. In: Stang, J. and Story, M., Eds., *Guidelines for Adolescent Nutrition Services*, University of Minnesota, Minneapolis, 21-34.

^v World Health Organization (2005). *Nutrition in adolescence: issues and challenges for the health sector*.

^{vi} Rehana A. Salam, M.Sc. a , Mehar Hooda, M.D. a , Jai K. Das. Et al (2016). Interventions to Improve Adolescent Nutrition: A Systematic Review and Meta-Analysis *Journal of Adolescent Health* 59 S29eS39

^{vii} World Health Organization (2005). *Nutrition in adolescence: issues and challenges for the health sector*.

^{viii} Rees JM, Christine MT. (1989). Nutritional influences on physical growth and behavior in adolescence. In: Adams G (ed). *Biology of adolescent behaviour and development*. California: Sage Publications.

^{ix} Key JD, Key LL Jr. (1994). Calcium needs of adolescents. *Curr Opin Pediatr*; 6:379-82 K

^x Lifshitz F, Tarim O, Smith MM. (1993) Nutrition in adolescence. *Endocr Metab Clinics North Amer*; 22:673- 83

^{xi} Story, M. and Stang, J. (2005) Nutrition needs of adolescents. In: Stang, J. and Story, M., Eds., *Guidelines for Adolescent Nutrition Services*, University of Minnesota, Minneapolis, 21-34.

^{xii} World Health Organization (2005). *Nutrition in adolescence: issues and challenges for the health sector*.

^{xiii} Rehana A. Salam, M.Sc. a , Mehar Hooda, M.D. a , Jai K. Das. Et al (2016). Interventions to Improve Adolescent Nutrition: A Systematic Review and Meta-Analysis *Journal of Adolescent Health* 59 S29eS39