REPORT ON SOMALI DIET
Common Dietary Beliefs and Practices of Somali Participants in WIC Nutrition Education Groups

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Methods
The following information was collected during more than 70 nutrition education groups for Somali patients taught by dietitian Aliya Haq at the WIC clinic at Harborview Medical Center (HMC), between 1999 and 2002. WIC is a supplemental nutrition education program for pregnant and postpartum women, infants, and children up to age five. Nutrition education is an integral part of the WIC program, which also provides healthy food vouchers to low income families. More than 400 Somali patients have attended the nutrition education groups at Harborview since they began in September 1999. **See below a Discussion of Group Education Intervention.**

Providers are encouraged to assess the needs and behavior of all patients individually, and to consider that the information presented here is not intended to be a full account of the dietary practices and beliefs of all Somali immigrants. As Westernization appears to have influenced some aspects of Somali immigrants' diet already, it will be important to observe if and how further acculturation impacts diet in the future.

The Somali Diet
Limited or no published data is available regarding the dietary beliefs and practices of Somali people residing in the United States. For this reason, the following information

has been compiled to convey the lessons learned during nutrition education groups with hundreds of Somali patients. The information is organized into four sections:

1. **Religious Proscriptions** – discusses the influence the dominant Muslim religion has on Somali immigrants' diet; includes descriptions of halal and haram foods, and fasting and breastfeeding practices.
2. **Foods Commonly Consumed and Methods of Cooking** – lists foods that are commonly eaten in Somali immigrant households, including common ingredients and cooking methods for these foods, with indication of which foods are considered high in fat, high in carbohydrates and fat, high in salt, and high in protein. This section also discusses consumption of fast foods and elements of an acculturating diet.
3. **Common Dietary Beliefs** – describes some of the commonly held beliefs regarding diet and nutrition that have been expressed by Somalis participating in the group education.
4. **Common Nutrition/Diet Related Health Problems** – lists common problems observed among Somali immigrant patients.

1. Religious Proscriptions

Almost all Somalis are Sunni Muslims. For many people (including Somalis) who practice Islam, religion has a much more comprehensive role in life than is often typical in the Americas or Europe. Religion influences Somali dietary practices.

"**Halal**" foods are foods that one is allowed to eat. Halal foods include all foods of plant origin and some of animal origin only if they conform to the religious method of slaughtering. Lamb, goat, camel, cow and chicken are halal animals when slaughtered in the proper way. The Islamic mode of slaughtering involves two steps:

1. mentioning the name of Allah before beginning the slaughter
2. severing of the throat, wind pipe and the jugular veins in the neck, without cutting the spinal cord.

"**Haram**" are forbidden foods or drinks, including pork, blood and animals not slaughtered in the proper way, alcohol and drugs, and foods containing ingredients obtained from other haram foods. Many Somalis avoid foods such as some baby formulas, yogurt and cheese because of the concern these foods may have pork in them. Animal shortening and gelatin are the ingredients of concern. Mono and diglycerides in prepared foods are also objectionable unless specified as "vegetable mono/diglyecerides".

Fasting is a common religious expression and is also a common dietary factor for Somalis. All adult Muslim Somali people must fast, meaning to abstain from eating, drinking and smoking, from dawn to sunset everyday of Ramadan, the ninth month of the Islamic (lunar) calendar. Sick persons and travelers can defer fasting during Ramadan and make up for it later. Pregnant and breastfeeding women can also defer fasting during Ramadan, however most Somali women insist on observing the fast. Ramadan fasting is often a great concern for providers. A detailed discussion customized to the individual needs of a patient often helps overcome the concerns of both patients and provider.

Holding a routine in-service for providers and interpreters each year prior to the month of Ramadan would greatly help eliminate problems and be an opportunity to discuss specific concerns. Concerns discussed could include fasting by pregnant women especially those diagnosed with gestational diabetes, and excessive weight gain by some people who consume high fat snacks/foods after breaking the fast at sunset. Some of these foods include "mandazi", "Sambosa", homemade cakes, "Burkaki" and "Maqhumri", all being high calorie foods due to their high fat high sugar content. Weight loss can also be a concern for people who fail to eat adequately. Dehydration is often a concern for breast-feeding women.

Breastfeeding a child for two years is also recommended in the religion. (Qur'an 2:233) In Somalia, babies are breastfed, or given cow's milk diluted with water when moms go out to work.

2. Foods Commonly Consumed and Methods of Cooking

Family meal is still the norm. Frying is the most common method of cooking. Lamb or goat meat is considered the best meat to eat. Tea is the most common drink with lots of sugar. Drinking 4-6 cups of sweet tea a day is common. Homemade cakes are often eaten as snacks.

In the list of foods below, the dietitian considers:
Malawa, Chapathi, Roti Shanai, and **Halwa** are **high carbohydrate/ high fat** foods.
Sambosa, Burkaki, and **Maqhumri** are **high fat** foods.
Ambola, Fool, Iskudahkaris, and **Soor** are **high fiber** foods.
Meat sauce/curry, Sukhar, and **Kabaab** are **high protein** foods.

Angera is made several ways as follows:

1. Teff and corn flour
2. Teff and Sorghum
3. Self rising flour, corn flour, and eggs
4. Corn flour, eggs, wheat flour
5. Self rising flour, water or milk, and sugar

Westernization of foods and dietary practices is happening including making anjera with pancake mix or all purpose flour instead of corn, teff and other ingredients of traditional anjera.

Sauce with Angera is made of ½ cup tea, 1 tsp. Butter, and 2-3 spoons sugar added to the tea during preparation.

Ambola is made with red beans boiled in water, and is sometimes mixed with rice and a pinch of salt. It is smeared with sesame oil (called masara) and sugar when served.

Malawa looks like a pancake and is made with flour, sugar, oil and eggs. It may or may not be served with honey.

Fool is made with Pinto beans, tomatoes, and onions in water. The onions are fried before being added to the other ingredients.

Mufo is bread made with corn flour, salt and sugar and is baked like a cake.

Meat sauce/Meat curry is made with ground beef and mixed vegetables and lots of spices. It is also made with goat meat that has been fried or baked.

Rice is eaten steamed or fried. Fried onions and spices are added to the rice before adding water. Plenty of oil is used.

Iskudahkaris (called Pilau in Tanzania) is a combination of onions and vegetables that are fried in oil, to which rice and water are then added.

Roti is pan cooked bread without oil.

Chapathi is a pan fried bread using vegetable oil or butter to fry.

Roti Shanai is similar to chapathi or East Indian paratha; it is served with butter and honey.

Sambosa are curry puffs stuffed with meat and vegetables and then deep fried.

Pasta is served with tomato and meat sauce that may have vegetables added to it. Carrots and potatoes are the commonly used vegetables.

Halwa is made with wheat flour, clarified butter and sugar.

Sukhar is a beef and tomato sauce, or a beef and vegetable sauce.

Soor is made with corn.

Burkaki (Mandazi in Kenya) are two types: 1. Balls made out of Angera mix and deep fried, and 2. Chapati rolled out of Angera dough, cut into triangles and fried.

Maqhumri is dough made out of flour, sugar, eggs and baking powder. Small balls of dough, about 2-3 inches in circumference, are deep fried in oil.

Kabaab is ground lamb or beef that is mixed with spices and baked or grilled.

Fast Foods/Acculturated Diet A common concern of most Somali parents is that while they like to cook and eat Somali foods, their kids are moving more towards a diet of fast foods. French fries and the like are readily becoming popular in Somali homes in the USA, and so also the consumption of soda pop and high-fat snacks.

- Cheese is now being included among foods regularly eaten by Somalis in Washington State.

- Pepsi and the sweetened red drink "Vimto" are common drinks in addition to sweet tea.

- Excessive fruit juice consumption by kids, a westernized habit, is an emerging concern. The practice is observed as contributing to feeding disorders in kids.

- Westernization of staple foods is happening including making anjera with pancake mix or all purpose flour instead of corn, teff and other ingredients of traditional anjera.

- Pediasure, a pediatric nutritional supplement, is a very popular drink among Somalis, used to promote weight gain. It often replaces meals.

3. Common Dietary Beliefs

"Fat and healthy" is how parents prefer their kids to be, even to be overweight or obese by Western standards. Increased interest by Somali parents in the use of high-calorie nutrition supplements for their children to boost weight gain, has been observed. This practice is leading to feeding mismanagement.

Abdominal obesity in women is considered okay, especially post childbirth.

Camel milk is believed to be the best of all milks.

Eating chicken injected with hormones is believed to be bad for the human heart and to contribute toward being fat.

Breast feeding women believe the tea increases milk production and therefore they increase their consumption of tea, which is usually very much sweetened with sugar.

Women in the education groups have reported not liking the idea of pumping breast milk, for fear of disfigurement.

4. Common Nutrition/Diet Related Health Problems

Anemia
Constipation
Poor dental health
Allergies
Lipid abnormalities
Diabetes
Childhood and Postpartum Obesity
Failure to thrive (FTT)
Feeding Disorders/Feeding Mismanagement
Daycare feeding concerns

Eating disorders (among Somali teens, this is a fairly new and upcoming concern)

General Recommendations for Providers

- Hold regular cross-cultural in-services for all new residents and providers, especially before Ramadan.
- Consider a group approach to patient education whenever possible
- Do not expect direct answers to your questions, i.e. be aware that interpreters may need to explain to the patient the reasoning behind a provider's question. Otherwise, the patient may be offended (as he/she may perceive some invasion of their cultural/religious beliefs) or the patient may not clearly understand how to answer (as some Westernized terms are not easily understood).
- Written recommendations for patients should be made available whenever possible to improve compliance. Forgetfulness of providers' recommendations has been a concern often expressed by patients.

Coming soon:
Information about infant formulas and preparations that can be safely recommended to Somali parents for their infants, taking into account the need for Halal formulas.

Discussion of Group Education Intervention

The previous information was collected during more than 70 nutrition education groups for Somali patients taught by dietitian Aliya Haq at the WIC clinic at Harborview Medical Center (HMC), between 1999 and 2002. WIC is a supplemental nutrition education program for pregnant and postpartum women, infants, and children up to age five. Nutrition education is an integral part of the WIC program, which also provides healthy food vouchers to low income families. More than 400 Somali patients have attended the nutrition education groups at Harborview since they began in September 1999 and continue through the present. What follows is a discussion of the content, outcomes and benefits of the group education as documented and observed by Aliya Haq during the period 1999-2002.

Group Education Outcome and Process Measures

The impact of classes was measured by the education topics covered, comparison of show rates and nutritional practices between patients in education groups and individual appointments, and patient satisfaction surveys.

Group Education Topics

Basic nutrition education
Childhood obesity
Dietary treatment of nutritional anemias
Snacking and dental health
Diet and exercise
Preparing healthy snacks
Introducing veggies to preschool children
Bean cookery

Cross-cultural diets
Breast-feeding education

Comparison of Show Rates and Nutritional Practices

During the year 2000-2001, show rates of patients to the groups averaged about 68 percent, whereas show rates of patients to individual appointments averaged around 45 percent.

41 percent of patients who attended the groups reported eating more than three servings of vegetables a day, compared to about 21 percent of those attending individual appointments during the same period.

61 percent of patients attending the groups redeemed their gifted farmers market checks to buy fruits and vegetables, compared to about 48 percent of patients attending individual appointments.

Patient Satisfaction Surveys

Ninety-seven percent of patients who attended the groups reported that they understood education topics covered in the classes.

Seventy percent of patients who attended the groups reported that they liked the group whereas 30 percent preferred one-on-one education.

Ninety-five percent of patients who attended the groups said they would attend the nutrition group in the future and 90 percent said they enjoyed the group interaction.

Benefits of Group Nutrition Education

Quality nutrition and breast-feeding education offered
Documented patient education
Group sharing
Interaction and discussion
Improved learning
Community linkages via guest speakers and SNAC program
Walk-in access
Walk in patients get nutrition education
Cultural competency training for students
Time-saving for patients, clerks, interpreters, RD
Increased visit slots for high risk kids in need of individual contact
More time available for high-risk WIC patients
Literacy education with provision of books from HMC literacy program

The cost per visit per patient for education at the hospital is roughly calculated at almost 40 percent less for patients attending groups as opposed to attending individual appointments with their providers. This calculation is based on the hourly time spent by the registered dietitian and interpreter, and the number of patients attending group education sessions over a two-year period, compared to the hourly time that would be

required of the dietitian and interpreter with the same number of patients attending individual 1-hour appointments to receive the education.