

First Foods: Developing a Nutrition Education Curriculum for Refugee and Immigrant Mothers

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Introduction

What is First Foods?

First Foods is a series of nutrition and cooking classes developed to improve the long-term health outcomes of refugee and immigrant families. **The goal of the classes are to provide education on the nutritional needs of infants and toddlers in a culturally appropriate and effective way, equipping mothers with the skills necessary to support the health of their children in a new country.** Each of the 1.5 hour class sessions also includes interactive demonstrations on making low-cost, healthy baby food with ingredients from local grocery stores, as well ideas for creating healthy snacks for older children and adults.

Who is the target audience?

Women new to the United States who are pregnant and/or have children under the age of two years.

Why is this class needed?

Refugees and immigrants face unique health challenges: Although most experience a lower incidence of chronic disease prior to arrival in the US, many are at greater risk of developing them. The nutritional status of prior generations can genetically predispose individuals to develop chronic diseases, particularly if a typical energy-dense Western diet is adopted.^{1,2} Additionally, refugees often experience difficulty navigating their new food environment, with social barriers leading to food insecurity, independent of income.³ Given the challenges facing these vulnerable populations, the First Food classes are designed to both educate participants on early nutrition and to teach the practical skills that are necessary for navigating a new food environment, thereby promoting the self-sufficiency of participants.

Kaati G, Bygren LO, Edvinsson S. Cardiovascular and diabetes mortality determined by nutrition during parents' and grandparents' slow growth period. *Eur J Hum Genet.* 2002;10(11):682-8.

Heijmans BT, Tobi EW, Stein AD, et al. Persistent epigenetic differences associated with prenatal exposure to famine in humans. *Proc Natl Acad Sci U S A.* 2008;105(44):17046-9.

Hadley C, Patil CL, Nahayo D. Difficulty in the food environment and the experience of food insecurity among refugees resettled in the United States. *Ecol Food Nutr.* 49(5):390-407.

Objectives

- **Develop an evidence-based curriculum that is easy-to-understand, accessible, and can be taught by community workers**, not just RDs and MDs
- **Incorporate information that is useful and relevant to refugee and immigrant mothers** from various ethnic and cultural groups, and with variable levels of acculturation
- **Introduce participants to new foods and cooking techniques**
- **Ensure that participants have the opportunity to provide feedback and suggestions**

Methods

The First Foods curriculum was created through a partnership between Seattle Children's Hospital, University of Washington – Harborview Medical Center, and Lutheran Community Services Northwest, to meet the needs of local communities: **The First Foods pilot class series reached local Arabic-speaking, Afghani, Somali, and Burmese populations.**

Development of the curriculum was informed by focus group interviews and entrance and exit questionnaires. Translations of all materials were provided, and trained interpreters were present to help participants complete the surveys. **Information collected as part of the pilot program will be published in a forthcoming study through Harborview Medical Center.**

Sandwiches

<p>1) Peanut Butter & Jelly (PB&J):</p> <ul style="list-style-type: none"> Spread peanut butter on one slice of bread Spread jelly on the other Put them together to make a sandwich! 	<p>2) Peanut Butter & Banana:</p> <ul style="list-style-type: none"> Use banana slices instead of jelly 	<p>3) Meat & Cheese:</p> <ul style="list-style-type: none"> Put 1 tsp of mayonnaise on one slice of bread Put 1 tsp mustard on the other Fill sandwich with your choice of deli meat, cheese, lettuce, and sliced tomato
<p>4) Tuna Sandwich:</p> <ul style="list-style-type: none"> Mix 1.5 oz can tuna with 1 Tbs mayonnaise Stir in 2 Tbs of chopped pickles Stir in 1 chopped hardboiled egg Makes enough for 2 sandwiches 	<p>5) Egg Sandwich:</p> <ul style="list-style-type: none"> Mix 3 chopped hardboiled eggs with 1 Tbs mayonnaise and 1 Tbs mustard Stir in 1/2 tsp Paprika (optional) Makes enough for 2 sandwiches 	



Results & Implementation

First Foods Class #1: Eating & Child Development

This class describes how a child's development influences what kind of foods they can eat, and when. Caregivers will learn about child development, good foods to give at different ages, feeding cues to look out for, and how to foster healthy feeding relationships at every stage.

Icebreaker: What are your children's favorite foods?

Key Messages:

Children grow rapidly in their first few years of life, and are able to eat different foods at different stages. Considering a child's age and abilities when feeding them is very important:

Giving foods that are not age-appropriate can lead to health problems, while providing age-appropriate foods will both nourish a child and help them develop feeding skills. The following tables describe what foods are appropriate for each age group, and why.^{1,2}

Focus On: Drinking Water

Discussion:
Before you moved here, where did you get drinking water for your family? Where do you get it here?

In many countries, tap water is not safe to drink, and drinking bottled water is a habit that remains when people move to the US. However, Seattle has some of the best tap water in the country! It has a good taste and is low in trace chemicals.³

Taste Test Challenge:

Before the start of class, pour a small amount of tap water into cups, and pour a small amount of bottled water into differently labeled or colored cups. Give each participant a cup of each, and explain to participants that one contains bottled water while the other contains tap water. Have them sample the water and then vote on which is which, and see if they can tell the difference!

There are two major reasons we recommend drinking tap water:

- Cost: Buying bottled water can add up over time, tap water is free
- Dental Health: Seattle's tap water contains fluoride, a mineral that prevents tooth decay

Often the bad taste attributed to tap water may be due to the quality of a building's pipes, rather than the quality of the water. Water filter pitchers or faucet attachments can be a good investment for participants who drink bottled water for taste, as these devices are relatively low cost and are a one-time investment, and remove bad flavors without removing fluoride.

- **Identified areas of interest based on participant input:** e.g. organic food, packable school lunches, food allergy symptoms
- **Identified learning topics based on participant responses:** e.g. starting solid foods, dental health, infant hydration
- Grouped topics into four distinct classes, incorporated *focus activities*, *cultural notes*, and *discussion points* to enable community workers to teach the curriculum effectively
- **Class materials to be used for second series of classes through existing partnership**, with additional dissemination planned after publication of study.