Rural Appalachian Foodways from Then to Now: Using Traditional Foods to Enhance Dietetic Practice

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Objectives

1. Recognize significant changes in the rural Appalachian Diet over the past century

2. Describe cultural factors implicated in dietary choices of rural Appalachian people

3. Apply the information presented to enhance patient dietary counseling
Rural Statistics

- Rural setting
  - <2,500 people per square mile (USDA, 2013)
  - 19% of Americans
  - 42% of Appalachians
    - Appalachia includes West Virginia and portions of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia
    - 18% below poverty line
    - High rates of obesity and chronic disease
Rationale for Research

Appalachian State University’s setting in the beautiful Blue Ridge Mountains provides an ideal setting for the study of rural health issues.

Cultural competence skills learned in rural health settings are transferable to a wide variety of other cultural settings.
The long-term purpose of the project is to produce nutrition professionals who are competent in their abilities and skills to practice effectively in rural health care settings, and are able to transfer those abilities and skills to any practice situation in which cultural competence is required.
Research Goals

O To explore the specific factors that affect food choices and nutrition care in rural Appalachian people
O To halt and reverse healthcare crisis of obesity and chronic disease in rural Appalachia
O To help health care practitioners develop culturally sensitive, acceptable, and effective nutrition interventions
Research Agenda

- Preliminary intern field notes with draft of initial Rural Nutrition Care Model
- Qualitative and quantitative analysis to develop each thematic area
- Verification of the Rural Nutrition Care Model and Traditional Appalachian Food Guide Pyramid
- Continued probing regarding specific counseling and education strategies for this population
- Analysis of historical documents to further verify findings and trace dietary transition over past century
Traditional Foods

- Family tradition
- Obtaining own foods – gardening, hunting, fishing, raising animals
- Heavy soda drinking
- Decreased access to fruits and vegetables
- Unusual names of foods (“cat head”, “poke”)
- “Anything goes” preparation
- Cultural preferences for diet high in fat and meat
- Increased reliance on convenience stores as source of food
Why does it matter?

- Many of these dietary patterns are related to chronic disease rates among Appalachian people.
- Nutrition professionals must understand factors that dictate food choices within their practicing community.
- More information needed to better understand motivators for and barriers to good nutrition among rural Appalachian patients in light of their own definition of health.
Preliminary Findings

- Diversity within the rural population
- 4 themes identified using published literature and intern field notes from rural practice settings
  - Access and Resources for Health Care and Nutrition Information
  - Sociocultural Influences on Dietary Knowledge and Food Selection
  - Traditional Foods
  - Health Behaviors
Rural Nutrition Care Model

1. Access and Resources
2. Sociocultural Characteristics
3. Traditional Foods
4. Health Behaviors
Challenges to Dietary Change

- Combination of traditional high-fat options and reliance on non-traditional food shopping are related to increased chronic disease
- Strong family connection to food ways

  - “I was raised up in these mountains, back up in the mountains, and we always had fresh food.”
  - “My family always had hogs and they didn’t scrap none of it; they used all of it one way or another.”
  - “The typical Appalachian diet is overcooked meat, fried chicken, mashed potatoes, biscuits and gravy. . . A lot of fat, a lot of salt. . . Sweet tea, pop. . . I’m not sure about the middle generation; I know a tremendous amount of those eat out of boxes. . .”
Qualitative Analysis
Theme:
Strong Food Traditions (279 mentions)

- Subtheme: Food traditions are based on strong family ties (33 mentions)
- Quotes from practitioners:
  - “We were in the dietitian’s office doing a food recall, and the client said, ‘Well, I usually drink a glass of sweet milk, and I had gold beans and a hoe cake for dinner’. Well, we get out of the room and the dietitian didn’t have a clue. She said, ‘What do you think sweet milk is?’ I said, ‘Well, its whole milk’. The beans are probably pinto beans, and they were probably cooked with fatback, which is just a piece of fatty pork, and a hoecake is a piece of fried cornbread. So I really had to go into detail about what that was. Because if you are going to work here you have to be aware of what a hoecake is.”
  - “On their food preparation and techniques and how they cook...what momma did is what they are going to do.”
  - “They fry this (food) and there is no other way to eat it than fried and that’s just how they grew up, what their grandparents did, what their parents did, and so you just have to realize that.”
Examples of Rural Appalachian Cultural Foods

- Beans (often pinto)
- Biscuits and gravy
- Blue John (skim milk)
- Buttermilk
- Cathead
- Corn bread
- Fatback
- Fried foods
- Fruit pies
- Garden vegetables in season
- Greens
- Grits
- Hoe cake
- Hushpuppies
- Honey

- Jam
- “Killing” ____. (Adding fat/oil to greens)
- Lard
- Livermush
- Molasses
- Nabs (square or round)
- Persimmons
- Poke
- Potatoes
- Ramps
- Side meat
- Soda
- Souse meat (Head cheese)
- Sweet milk
- Sweet tea
Theme: Typical Diet Pathways

- Subtheme: One or two meals per day (21 mentions)
- Subtheme: Familiar foods (82 mentions)

Quotes from practitioners:

“Depending on how rural they are, there is a lack of exposure to ‘city food’...and a resistance to try (it), like I’ve heard, ‘That’s city food’.”

“She was cooking greens with fatback, and she called it (olive oil) ‘city food’ and she said, ‘I’m not going to try city food’.”
Theme:
Food patterns and preparation (114 mentions)

O Quotes from practitioners
  O “Typically, the patients I’ve talked to eat the same way they ate when they were children and the same way their parents ate.”
  O “Some eat more fast food and some really cook.”
Theme:
Importance of Family Meals (33 mentions)

Quotes from practitioners:
- “I think they tend to have big sit-down meals.”
- “The thing that I’m thinking about is how strong the family connections are. The people that I work with that are pretty far out... they take care of themselves. There are strong generational connections.”
<table>
<thead>
<tr>
<th>Questionnaire Topic: Rural Patients...</th>
<th>Practitioner Response Mean (SEM) N=37</th>
<th>Patient Response Mean (SEM) N=24</th>
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<tbody>
<tr>
<td>lack knowledge about portion size and menu variety*</td>
<td>4.46 (0.118)</td>
<td>2.50 (0.225)</td>
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<tr>
<td>use high-fat cooking*</td>
<td>4.54 (0.103)</td>
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<tr>
<td>value traditional family foods*</td>
<td>4.54 (0.118)</td>
<td>3.71 (0.185)</td>
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<tr>
<td>value family gatherings*</td>
<td>4.46 (0.132)</td>
<td>3.92 (0.216)</td>
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<tr>
<td>put soda in baby bottles*</td>
<td>3.63 (0.213)</td>
<td>1.92 (0.240)</td>
</tr>
<tr>
<td>drink a lot of soda*</td>
<td>4.54 (0.111)</td>
<td>2.21 (0.318)</td>
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<tr>
<td>grow their own food*</td>
<td>3.71 (0.177)</td>
<td>0.50 (0.104)</td>
</tr>
</tbody>
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Rural Health Nutrition Practice Model
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1. Access and Resources
   - Finances and Insurance
   - Location/Distance
   - Food insecurity

2. Sociocultural Characteristics
   - Resistance to Change
   - Religion
   - Family
   - Storytelling

3. Traditional Foods
   - Familiar Foods
   - Dietary Patterns and Pathways
   - Family Meals

4. Health Behaviors
   - Preventative Care
   - Substance Abuse
   - Self-management
   - Chronic Disease
Related Themes: Access and Resources

**Finances** (63 mentions)
- Subtheme: Financial struggle (33 mentions)
- Subtheme: Food insecurity (19 mentions)

“Some of the families are multiple generation, especially the grandchildren or great grandchildren or aunts and uncles or just multiple people living in one household...depending on who’s in the house and how many people in the family that can actually work, that can impact what’s provided at meals because of lack of money.”
<table>
<thead>
<tr>
<th>Questionnaire Topic: Rural Patients...</th>
<th>Practitioner Response Mean (SEM) N=37</th>
<th>Patient Response Mean (SEM) N=24</th>
</tr>
</thead>
<tbody>
<tr>
<td>are less likely to have health insurance*</td>
<td>3.74 (0.171)</td>
<td>1.17 (0.167)</td>
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<td>have difficulties arranging transportation*</td>
<td>4.09 (0.150)</td>
<td>1.00 (0.000)</td>
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<tr>
<td>lack of access to full-service grocery store*</td>
<td>3.69 (0.191)</td>
<td>1.33 (0.231)</td>
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<tr>
<td>lack access to utilities, refrigeration, etc.*</td>
<td>3.31 (0.204)</td>
<td>1.00 (0.000)</td>
</tr>
<tr>
<td>lack prescription drug coverage*</td>
<td>3.80 (0.178)</td>
<td>1.33 (0.231)</td>
</tr>
<tr>
<td>lack dental insurance*</td>
<td>4.09 (0.155)</td>
<td>2.33 (0.393)</td>
</tr>
<tr>
<td>lack of access to mental health services*</td>
<td>4.06 (0.153)</td>
<td>1.33 (0.231)</td>
</tr>
<tr>
<td>have lower cost of living*</td>
<td>3.49 (0.180)</td>
<td>2.71 (0.259)</td>
</tr>
</tbody>
</table>
Related Themes: Sociocultural Characteristics

- **Matriarchal food “gatekeeper”** (36 mentions)
  - Quote from practitioner:
    - “Whatever Momma did is what they’ll do.”
    - “A lot of times it would be the mother that would tell them that they need to go to WIC and a lot of times it would be the mother getting that connection made.”

- **Theme: Strong family ties** (36 mentions)
  - Quote from practitioner:
    - “A lot of times rural people are raised a certain way, especially in older rural people, they ate that way their whole life, their grandparents ate like that, and they are not going to change now. So they are really resistant to change.”
<table>
<thead>
<tr>
<th>Questionnaire Topic: Rural Patients/Families…</th>
<th>Practitioner Response Mean (SEM) N=37</th>
<th>Patient Response Mean (SEM) N=24</th>
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</thead>
<tbody>
<tr>
<td>need lower literacy education materials*</td>
<td>3.86 (0.149)</td>
<td>1.33 (0.143)</td>
</tr>
<tr>
<td>prioritize quantity over quality*</td>
<td>4.34 (0.136)</td>
<td>1.79 (0.233)</td>
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<tr>
<td>have a matriarchal gatekeeper**</td>
<td>4.20 (0.178)</td>
<td>3.67 (0.311)</td>
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<tr>
<td>have numerous hospital visitors**</td>
<td>4.11 (0.107)</td>
<td>4.08 (0.146)</td>
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<tr>
<td>view support services &amp; resources as charity*</td>
<td>3.59 (0.207)</td>
<td>2.79 (0.255)</td>
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<tr>
<td>don't trust outsiders*</td>
<td>4.17 (0.139)</td>
<td>2.42 (0.232)</td>
</tr>
<tr>
<td>mind their own business**</td>
<td>4.17 (0.139)</td>
<td>3.50 (0.241)</td>
</tr>
<tr>
<td>care for their own**</td>
<td>4.17 (0.139)</td>
<td>4.25 (0.211)</td>
</tr>
<tr>
<td>are very religious**</td>
<td>4.29 (0.133)</td>
<td>3.63 (0.261)</td>
</tr>
<tr>
<td>experience generational rather than situational poverty*</td>
<td>3.86 (0.170)</td>
<td>2.96 (0.266)</td>
</tr>
<tr>
<td>have meals fixed by women of the household*</td>
<td>4.43 (0.118)</td>
<td>3.88 (0.278)</td>
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</table>
Related Themes: Health Behaviors

- Alcohol abuse, drug abuse, smoking (7 mentions)
  - “Alcohol abuse kind of contributes to malnutrition and all kinds of problems for these people.”
- Health behaviors related to self-management (81 mentions)
  - “Some people don’t really see the association that what they eat affects their health.”
- Chronic Disease (76 mentions)
- Poor dental health (6 mentions)
  - “I saw a lot of dental health problems.”
<table>
<thead>
<tr>
<th>Questionnaire Topic: Rural Patients...</th>
<th>Practitioner Response Mean (SEM) N=37</th>
<th>Patient Response Mean (SEM) N=24</th>
</tr>
</thead>
<tbody>
<tr>
<td>lack knowledge of healthy lifestyle*</td>
<td>3.89 (0.168)</td>
<td>2.23 (0.271)</td>
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<tr>
<td>are often smokers*</td>
<td>3.86 (0.170)</td>
<td>2.23 (0.271)</td>
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<tr>
<td>are often overweight or obese**</td>
<td>3.23 (0.233)</td>
<td>3.05 (0.263)</td>
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<tr>
<td>perceive that cancer is often due to farming chemicals*</td>
<td>3.13 (0.157)</td>
<td>2.18 (0.243)</td>
</tr>
<tr>
<td>wait to seek medical attention**</td>
<td>3.93 (0.143)</td>
<td>3.36 (0.259)</td>
</tr>
<tr>
<td>have adequate access to nutrition education &amp; dietitian services*</td>
<td>2.00 (0.179)</td>
<td>2.95 (0.232)</td>
</tr>
</tbody>
</table>
Research-based strategies: Traditional Foods

- Develop in-depth knowledge of cultural foods and dietary practices

Quotes from practitioners:

- “Understanding how they prepare foods, and what that means, can really help you target your intervention, or teach them how to use a healthier oil to do the same preparation, or how to cook something a little differently…”

- “Food choices and preparation methods are certainly unique and you just have to know what it is…”
Research-based strategies: Traditional Foods

- Gardening (46 mentions)
  - “A lot of patients I’ve seen do have their own gardens, so they do grow their own food.”
  - “A lot of my clients grow...mostly the ones that live pretty far out. Yeah, I found that really interesting when I first moved here. And I think that’s passed on from generation to generation and they would have the land and they would grow vegetables.”
  - “What they can grow, or what their neighbor can grow, or what they can get at the farmers market...they just have the tendency to eat healthier when they can grow it. Its more readily available.”
Research-based strategies: Traditional Foods

- Cooking (17 mentions)
  - “I feel like when you’re cooking your own foods and growing your own vegetables and things like that, you’re less likely to overeat because it’s a process and it takes time and energy and effort to make these things and you’re not, it’s not just coming at you, it’s not just there.”
  - “Again, it kind of goes back to educating them on different types of vegetables or other ways to cook vegetables, like instead of, um, frying everything, teaching them how to make it some other way or teaching them that you can eat other vegetables at meals.”
Research-based Strategies
Make the most of available resources

- Find out what clients are growing in their gardens
  - Build on locally grown foods by teaching about how to provide balanced meals using those foods
  - Collaborate with Ag extension to provide gardening information and assistance to clients
  - Make clients aware that Supplement Nutrition Assistance Program (SNAP) benefits can be used for garden seeds
  - Provide cooking classes based on commonly grown foods
  - Explain practical cooking tips that patients can easily implement for healthier cooking
Research-based Strategies: Sociocultural Characteristics

- Target interventions toward food gatekeepers, who are often matriarchal family members.
- Respect family connections; encourage culture-based practices such as family meals.
- Realize that religious and spiritual beliefs may play a very important role in food choices.
Research-Based Strategies: Health Behaviors

- Effective motivation may center around family (desire to “be there” for family)
- Make connections and build relationships with respected influencers in the community (often pastors, doctors, teachers); work together to promote better health practices
- Make connections and build relationships with food “gatekeepers”
- Bring interventions to community venues (community centers, faith-based organizations, clubs, schools)
  - Interventions may include free medical and dental clinics, health screenings, nutrition classes, health education
Myth: Slower Life Style

- Engaged in rushed lifestyles just like urban/suburban counterparts.
  - Long commutes, longer distances to shopping/services
  - Growing dependence on fast food
  - May hold 2 or 3 low-paying part time jobs

- Consider unique rural cultural values, yet also address barriers that prevent healthy behaviors in the general American population.
Learn the Culture

- A strong, over-arching theme of our research is that there is such a thing as rural culture, although rural populations encompass as much diversity as any other groups.
- The impact of rural culture on nutrition practice may be related to the clients’ degree of rurality.
- Strive to learn and respect the cultural practices, including foodways, of rural populations for whom you provide services.
Traditional Southern Appalachian Diet Pyramid

- Lard, fatback, meat drippings, sweets, sweet tea, soda, honey, jam, molasses, sugar cane
- Eggs, milk
- Home-butchered/home-cured pork, game, poultry, soup beans, gathered nuts
- Grains: Corn, Wheat flour: corn bread, hoecakes, pancakes, biscuits, egg noodles, dumplings
- Home-grown fruits and vegetables (fresh or preserved): apples, melons, tomatoes, green beans, peas, greens, sweet corn, squash, potatoes, sweet potatoes, cabbage, onion
- Gathered fruits, vegetables, and fungi (fresh or preserved): berries, persimmons, greens, herbs, mushrooms

Family Meals
Physical Activity (Walking, Physical labor)
Social Gatherings
Trend analysis in Verification Survey

How has the typical Appalachian diet changed in the past 30 years?
- Increase in sweets/sweetened beverages (7)
- Increase in processed foods (6)
- Less farming (14)
- Increase in fast/convenience foods (25)
- Changes in cooking methods (3)
- Less cooking (3)
- Less physical activity (3)
“As the older generations die out the farms are dying out too. We eat lots of processed and sugary foods now compared to then. Not to mention everything can be cooked in the microwave.”
Verification of Traditional Appalachian Food Pyramid

- Ten cookbooks and twenty-one interviews from the W.L. Eury Appalachian Collection’s Oral History Project (1965-1989)
- Five interviews from the Southern Foodways Alliance’s (SFA) Oral History Initiative (2011-2014)
- Five key ethnographic research articles regarding traditional Appalachian foods
Historical Appalachia

- Traditional patterns due to physical environment and human adaptation in the unforgiving climate
- Heavily influenced first by Cherokee and other Native American tribes; second by European immigrants: Germany, Ireland, Scotland, England
Traditional Characteristics

- Reliance on land
  - Grown, gathered, hunted protein and plants
  - Roots and wild plants for medicinal purposes
- Energy dense meals
- Whole, unprocessed foods
- Labor-intensive lives, regular physical activity
- Harsh climate
Timeline

1500’s
- Corn, beans, squash, and tomatoes.
- Hunted game, wild plants, fruits and nuts

Early to mid-1800’s
- Corn, Irish potatoes, cabbage, hogs, cattle
- Soup beans from gardens, eggs, pork, wild game, animal fats from hogs, turnip, collard greens, green beans, cabbage, potatoes, cornbread, corn, berries, milk, wheat, store-bought sugar

Early 1900’s
- Soup beans from gardens, eggs, pork, wild game, animal fats from hogs, turnip, collard greens, green beans, cabbage, potatoes, cornbread, corn, berries, milk, wheat, store-bought sugar
Modern Characteristics

- Fast food culture
- Convenience stores
- Sedentary jobs
- Preservation (not the majority)
  - Heirloom seed saving and sharing
  - Gardening
Problem

- From active lives with gardens, farming, gathering plants, fruits, nuts, and hunting
- To sedentary jobs and consumption of today’s fast food culture
- Increased prevalence of overweight, obesity, and chronic nutrition-related diseases.
Goals of historical examination of dietary patterns in rural Appalachia

- Short-term: reconnect rural populations to historical nutrient-dense dietary patterns

- Long-term: increase cultural competency of future health professionals to understand rural patients’ view of nutrition
Composition

- ORAL HISTORIES, ARTICLES, COOKBOOKS

- Carbohydrates: 16%
- Added Fats/Sugars: 18%
- Dairy: 4%
- Gathered Greens, Fruit, Fungi: 8%
- Proteins: 17%
- Alcohol: 2%
- Coffee: 1%
- Other (Store Bought Items): 0%
- Home Grown Produce: 34%
Total Number of Mentions of Largest Categories (Oral Histories, Articles, Cookbooks)

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<th>Food Category</th>
<th>Number of Mentions</th>
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<td>Home Grown Produce</td>
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<tr>
<td>Proteins</td>
<td>642</td>
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<tr>
<td>Sources of Added Fats/Sugars</td>
<td>676</td>
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<td>Carbohydrates</td>
<td>620</td>
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Largest Categories: Home Grown Produce
Home Grown Produce
(Oral Histories, Articles)

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<th>Type of Produce</th>
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<tbody>
<tr>
<td>Wheat (Buckwheat)</td>
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<tr>
<td>Tomatoes</td>
<td>22</td>
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<tr>
<td>Sugar Cane</td>
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</tr>
<tr>
<td>Squash (Yellow Summer, Pumpkin, ...)</td>
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<tr>
<td>Rye</td>
<td>14</td>
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<tr>
<td>Potatoes (Irish and Sweet)</td>
<td>82</td>
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<tr>
<td>Okra</td>
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<tr>
<td>Melons</td>
<td>4</td>
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<tr>
<td>Greens, Lettuce</td>
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<td>Green Beans, Leather Britches</td>
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<tr>
<td>Cucumbers</td>
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</tr>
<tr>
<td>Corn</td>
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<td>Cabbage</td>
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</tr>
<tr>
<td>Beans, Peas, Legumes</td>
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<tr>
<td>Asparagus, Rhubarb</td>
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<tr>
<td>Apple, Peach, Pear, Cherry, Plum Trees</td>
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Protein Sources
(Oral Histories, Articles)

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<td>Beans, Peas, Legumes</td>
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<tr>
<td>Gathered Nuts/Seeds</td>
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<tr>
<td>Peanut Butter</td>
<td>6</td>
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<tr>
<td>Wild Game (Deer, Elk, Squirrel, Bear, Fox, Raccoon, Guinea)</td>
<td>21</td>
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<tr>
<td>Pork</td>
<td>139</td>
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<tr>
<td>Fish (Mountain Trout, Salmon)</td>
<td>13</td>
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<tr>
<td>Beef</td>
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Sources of Added Fats/Sugars
(Oral Histories, Articles)

Number of Mentions

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<thead>
<tr>
<th>Type of Added Fat/Sugar</th>
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<tr>
<td>Butter</td>
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<td>Cakes</td>
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<tr>
<td>SSB (Sugar Sweetened...)</td>
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<tr>
<td>Sugar, Honey, Sorghum...</td>
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<tr>
<td>Candy</td>
<td>13</td>
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<tr>
<td>Ice Cream</td>
<td>2</td>
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<tr>
<td>Pies</td>
<td>30</td>
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<td>Puddings</td>
<td>8</td>
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<td>Lard, Fatback, Grease...</td>
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Carbohydrate Sources (Oral Histories, Articles)

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<td>Rice</td>
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<td>Rye</td>
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<td>Oats</td>
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<tr>
<td>Wheat (Buckwheat)</td>
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<td>Macaroni and Cheese</td>
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<td>Corn</td>
<td>192</td>
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<td>Bean Bread</td>
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Summary

This research may help restore the dietary habits of generations past in today’s rural populations seeking nutrition therapy by guiding health care practitioners in the development of culturally sensitive, acceptable, and effective nutrition interventions that will improve the health and lives of rural Appalachian patients.
Next steps

- Integrate findings within Dietetic Programs, specifically through simulation training modules, to enhance cultural competence of future nutrition professionals.
- Incorporate findings into the development, implementation, and evaluation of culturally-sensitive nutrition interventions for the region.
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Questions?