American Indians, Obesity and Food Insecurity
Sentinel Populations Panel

Kathleen Sherman, J.D., Ph.D
Department of Anthropology
Colorado State University
Kathleen.Sherman@colostate.edu

Benjamin Jewel, M.A.
School of Human Evolution
and Social Change
PO Box 872402 Tempe, AZ, 85287
benjamin.jewell@asu.edu

Bethany Mizushima, M.A., M.P.H.
3626 Fremont Lane N, apt. 303
Seattle, WA, 98103
beth.mizushima@gmail.com
Tribal Diversity

– Population of 4.3 million (1.53% of US pop)
  • 564 federally recognized tribes
  • Less than 10% are age 65 or older
– One-Third live on Reservations and Designated Statistical Areas
– Shared history of land alienation
– Similarities, but distinct from each other, AND from other rural areas or inner cities
– ALL are embedded in cultural elements, ALL are impacted by dominant society. Culture as a point of access, regardless of location.
Tribal Diversity

- Weak market economies common
- Rural access to food stores and transportation limited
Persistent Poverty

- 26% of American Indians are living below the poverty line
- Poverty rate for Pine Ridge (Shannon County)
  - 1980  44.7%  (8th poorest county in U.S.);
  - 1990  63.1%  (Poorest county in U.S.);
  - 2000  52.3%  (2nd poorest county in U.S.)
- High rate of female headed households (more than 25% for Navajo, Pueblo and Lakota households)

<table>
<thead>
<tr>
<th>Full-time Year-Round Worker Median Earnings</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S. Population</td>
<td>$37,100</td>
<td>$27,200</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>$28,900</td>
<td>$22,800</td>
</tr>
</tbody>
</table>
Obesity

• 67% of American Indians Overweight and Obese (Kaiser Family 2009)
  – South Dakota 74.9%
  – Arizona 77.7%
  – Montana 71.8%
  – Washington 70.8%

• Initially treated as a “special population,” but now a universal issue
  – More vigilance in addressing health disparities early on, to in fact avert national and international health crises

• National Food and Health Policy matters
  – Different rates of obesity and diabetes for same cultural communities on either side of US-Mexican and US-Canadian borders
Health Effects of Obesity

- 16.5% of American Indians diagnosed with Diabetes
  - Southern Arizona 29.3% with Diabetes
  - Pima 50% with Diabetes
    - 95% with Diabetes are Overweight
    - Pima rates, gateway for genetic research
Food Insecurity

• Food Stamp Program and Commodities (FDPIR) a critical component in food accessibility (nutritious, available and affordable)
  – Structural aspects to food distribution
  – Distance, cost
  – Food deserts
  – Coping strategies
“Pine Ridge Study”
Food Insecurity in Pine Ridge

• In the last year, was there ever a time when you did not have enough food? Yes = 50%
  – 48% Economic Hardships
  – 32% Expectation of Sharing Food
  – 20% Problem with Program (e.g. policy changes)

<table>
<thead>
<tr>
<th>Relationships between food insecurity and other variables</th>
<th>Food Secure</th>
<th>Food Insecure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Choice</td>
<td>38.6%</td>
<td>61.4%</td>
</tr>
<tr>
<td>Poverty Level</td>
<td>98.6%</td>
<td>78.1%</td>
</tr>
<tr>
<td>Transportation Issues</td>
<td>38%</td>
<td>62%</td>
</tr>
</tbody>
</table>
# Food Insecurity and Health

**Pine Ridge Study**

Impact on households as barrier to economic development

<table>
<thead>
<tr>
<th>Rate of disease incidence for households</th>
<th>Diabetes</th>
<th>Hypertension</th>
<th>Weight</th>
<th>Heart Disease</th>
<th>Cancer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservation Total</td>
<td>51.1%</td>
<td>45.7%</td>
<td>50.6%</td>
<td>25%</td>
<td>16%</td>
<td>71.3%</td>
</tr>
<tr>
<td>Food Secure</td>
<td>41.9%</td>
<td>40.5%</td>
<td>48.8%</td>
<td>12.5%</td>
<td>15%</td>
<td>67.6%</td>
</tr>
<tr>
<td>Food Insecure</td>
<td>59.1%</td>
<td>50.0%</td>
<td>58.7%</td>
<td>24.4%</td>
<td>17%</td>
<td>73.2%</td>
</tr>
</tbody>
</table>
Food sharing and cultural networks for food

Commodities and Food Stamps miss the mark in Nuclear Family orientation
- 91% of respondents share food with people not living in their household.
# Sources of Food

<table>
<thead>
<tr>
<th>What percent of Household food comes from the following Sources?</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market</td>
<td>46</td>
</tr>
<tr>
<td>Food Stamps</td>
<td>26</td>
</tr>
<tr>
<td>Commodities</td>
<td>19</td>
</tr>
<tr>
<td>Received Foods</td>
<td>6</td>
</tr>
<tr>
<td>Wild Foods</td>
<td>3</td>
</tr>
</tbody>
</table>
Food Stamps and Commodities

- 82% of households prefer to use Foods Stamps rather than Commodities.
- 58% of households were using Food Stamps, and 41% were using Commodities.

<table>
<thead>
<tr>
<th></th>
<th>Percentage of Households on Food Stamps</th>
<th>Average Aid Amount per Month</th>
<th>Number of Participants per Household</th>
<th>Average Aid Amount per person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine Ridge</td>
<td>57.6%</td>
<td>$412.63</td>
<td>4.2</td>
<td>$98.27</td>
</tr>
<tr>
<td>South Dakota</td>
<td>7.5%</td>
<td>$231.11</td>
<td>2.5</td>
<td>$93.65</td>
</tr>
<tr>
<td>United States</td>
<td>8.9%</td>
<td>$214.38</td>
<td>2.3</td>
<td>$94.04</td>
</tr>
</tbody>
</table>
TANF and Food Insecurity

- Women going without food
- Pine Ridge Households relying completely on welfare for their financial support had the highest rate of food insecurity – 83% (U.S. average 10.9%)
- Reduced benefit levels and increased work and community service requirements
  - More households receiving Food Stamps alone
  - Puts more pressure on “food” dollars and distributions to meet competing needs
Physical Activity

- Community Safety and Security
- Basic Infrastructure
- Intergenerational Involvement
Holistic approach

• Linking food security, health, physical activity, economic revitalization and cultural renewal
Recommendations and Further Research

• Amend food programs to recognize local foods and traditional diets
• USDA has tremendous power to address this for Native peoples on Reservations
  - Continue to improve content of commodity foods (FDPIR)
  - Provide grants for locally conceived, flexibly based approaches to foodway education and distribution
    • Culturally and historically appropriate solutions
    • Focus on children and the elderly for cultural motivation
    • For Plains tribes, support bison production, reduce restrictions on bison processing, and understand multiple impacts of cattle in reducing diet health
Recommendations

• Food insecurity is a Multigenerational Trauma
  – More than 1 or 2 year program to resolve
  – Continuity and dependability in food systems critical to creating the reality of food accessibility for children and dependents

• Programs to help local micro-enterprise and small business to make fresh foods available

• Enhancements to “know your farmer” approach