Food Insecurity Among Rural Cancer Survivors

Hollyanne Fricke, MPH
Courtney Parks, PhD
About Us

Established in 1973, the Center is a national nonprofit research institute, based in Omaha, providing expertise in public health nutrition. The Center’s primary focus is measurement and evaluation across the content areas of childhood obesity prevention, food insecurity, and local food systems.

Connect with us:
- Website: [www.centerfornutrition.org](http://www.centerfornutrition.org)
- Facebook: CenterforNutrition
- Twitter: GretchenSwanson
Our Work

- **Research and evaluation**
  - Partner with a wide range of organizations across the country (and locally) to facilitate measurement, evaluation, analysis, and development of reporting and other communications

- **Program development and capacity building**
  - Work with foundations and others to build strong metrics to show return on investment
  - RFP development
  - Readiness and capacity building
  - Tracking and evaluating technical assistance
  - Scientific strategic planning
“Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.”

GSCN & Health Equity

- We primarily work on projects focusing on social determinants of health and the needs of low-income groups, communities of color, children and families, and rural and urban populations.
- Evaluating efforts and initiatives that seek to advance health equity.
- Seek to understand that there are systematic barriers that prevent equal opportunities for all people to live healthy lives.
- Our research and evaluation has focused on understanding social determinants of health, barriers faced by oppressed communities, and identifying impacts, best practices, and lessons learned from public health initiatives that address health equity.
What does health equity mean to you in your work? For Nebraska?
Partnership with the American Cancer Society

- Make strategic recommendations about the structure of a community-based programming to address food security/healthy food access relevant to cancer prevention and survivorship.

- Key informant interviews
  - Conduct interviews with ACS staff, volunteers, and partners to explore existing activities, “bright spots”, readiness, and potential role with food security

- Landscape analysis
  - Identify what and how other organizations are working on to address food security with potential niche areas for ACS

- Literature review
  1. Food security/financial factors related to cancer
  2. Link between obesity, cancer, and food security
Who is in the room?

Stand up if you fall into the following categories
- Health care
- Health departments
- Other public health
- Food assistance programs
- Social work
- Dietitians
- Non-profit or community-based organization

Do you work in communities or serve any of the following populations?
- Urban
- Rural
- Low-income
- Racial-ethnic minority populations
Current Environment Contributing to Obesity

In 1919...
- Walking 40 miles for water! (every week!)
- Active lifestyle at work (physical labor)
- Active lifestyle at home (playing, cooking, etc.)
- Smaller portions
- Unprocessed foods

In 2019...
- Drive to work
- Park close to the door
- Elevator to the office
- Sit while working
- Sit while at home (TV, Internet, etc.)
- Expanding portions
- Highly processed foods

Nutrition
- Expanding portion sizes
- Change in composition of diets
- Shift to commodity crops

Physical Activity
- Unsafe neighborhoods
- Urban sprawl
- Reliance of automobiles
- Technology
- Sedentary jobs
Intersection of Obesity and Food Insecurity

Food systems and dietary quality
Coexistence of Food Insecurity and Obesity

- Poverty
- Poor Education
- Marital Status
- Other Indicators of Socioeconomic Status

- Location
- Race/Ethnicity
  - Non-Hispanic Blacks
  - Blacks

- Food deprivation – overconsumption
- Nutrition deficiencies – weight gain
- Episodic food shortages - increased body fat

- Limited variety of foods
- Low cost high energy foods
- Fewer fruits and vegetables

Shared risk factors
Common Population Burden
Biological Mechanisms
Behavioral Mechanisms

Food Insecurity

Obesity

Poor Dietary Quality

Malnutrition
The issues

- Obesity is the #1 preventable cause of death in the U.S.
  - > 70% of adults over the age of 20 are overweight or obese
- Link between cancer and obesity is strong
  - Poor dietary quality independent influence on cancer
- Disproportionately impacts low-income, rural, and racial-ethnic minority populations
- Cancer survivorship opportunity to improve dietary quality
- Low-income cancer survivors at risk for food insecurity: absence of access to nutritionally adequate/safe food
15% OF ALL AMERICANS
LIVE IN RURAL AREAS

Rural Americans are at **greater risk of death**
from 5 leading causes than urban Americans
- Heart Disease
- Cancer
- Unintentional Injury
- Chronic Lower Respiratory Disease
- Stroke

**PROTECT YOURSELF**
- Be physically active
- Eat right
- Don’t smoke
- Wear your seat belt
- See your doctor regularly
Rurality and Nebraska
Definition: Who is a Cancer Survivor?

Anyone who has been diagnosed with cancer is a survivor—from the time of diagnosis and for the balance of life.

Differentiate types of survivors:

- In active treatment
- Disease-free long-term survivors (≥5 years post-dx);
- Those living with cancer as a chronic disease
In the United States, there are 15.5 million cancer survivors. By 2026, there will be 20 million.
Average Life Expectancy (2003-2007) by Median Income of Census Tract/Municipality (2009), Cook County

<table>
<thead>
<tr>
<th>Median Income</th>
<th>Life Expectancy at Birth in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Than 25k</td>
<td>73.2</td>
</tr>
<tr>
<td>25-35k</td>
<td>78.8</td>
</tr>
<tr>
<td>35-44k</td>
<td>79.9</td>
</tr>
<tr>
<td>44-53k</td>
<td>79.9</td>
</tr>
<tr>
<td>Greater Than 53k</td>
<td>87</td>
</tr>
</tbody>
</table>

Source: Life expectancy calculated by the VCU Center on Human Needs from 2003-2007 data provided by Cook County Health Department Median Income from 2009 Geolitics Premium Estimates
Having Cancer is Expensive

- Cancer patients are receiving more expensive therapies
- Prices in excess of 10k a month are not uncommon
- Medical costs have shifted to patients through higher premiums, deductibles, and coinsurance/copay rates
- Financial distress is prevalent – even with health insurance
- Ongoing cancer care and care for long/late effects from treatment
- Limited work ability, both during treatment and post treatment
Financial Toxicity Defined

- Out-of-pocket expenses might have such an impact on the cancer experience as to warrant a new term: "financial toxicity."
- Out-of-pocket expenses related to treatment are akin to physical toxicity, in that costs can diminish quality of life.

The Consequences

Survivors experiencing financial burdens are more likely to:

- Forgo or delay medical care
- Avoid filling prescriptions
- Avoiding follow-up care
- Discontinue medications
- Have poorer health outcomes
How are cancer and food insecurity related?

- Medical costs
- Out-of-Pocket Expenses
- Home health
- Health insurance
- Lodging
- Travel to treatment
- Access to a dietitian
- Nutrition needs
- Dietary quality – special needs
- Coping with side effects
- Job loss
- Caregiver impact
- Employment re-entry
- Loss of wages
- Child care
Can you think of any other challenges that rural populations or other minority populations might face?
Access to Care in Nebraska

Doctors (MDs) per 10,000 people
Rural Food Access In Nebraska

http://www.healthyfoodaccess.org/get-started/research-your-community
Rural Disparities

- Higher incidence and mortality from cancer (especially those that can be prevented through diet and physical activity)
- Limited access to medical care and support services

<table>
<thead>
<tr>
<th>Rural cancer survivors are</th>
<th>Less likely to:</th>
<th>More likely to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Have access to comprehensive cancer centers</td>
<td>• Work in service-oriented jobs</td>
</tr>
<tr>
<td></td>
<td>• Retire early</td>
<td>• Experience psychological distress</td>
</tr>
<tr>
<td></td>
<td>• Have disability insurance</td>
<td>• Report poorer health</td>
</tr>
<tr>
<td></td>
<td>• Have access to healthy foods</td>
<td>• Have lower levels of education</td>
</tr>
</tbody>
</table>
Quality of Life Framework

Psychological Health
Quality of life
Depression
Cognition/attention
Anxiety about recurrence

Cancer Stress & Burden
Physical
Interpersonal
Financial toxicity
Employment
Food Insecurity
Healthy food access

Resources
Formal
Food assistance
Emergency food
Programs (e.g., financial, cooking)

Informal
Social support
Hunger coping
Informational
Spiritual
Programming to address food insecurity among cancer survivors

- Food Research & Action Center (FRAC)
  - Policy advocacy around food assistance programs
- Rural Health Policy Institute and AHA Rural Advocacy Action Center
  - Grassroots campaigns
  - Coordination with Rural Health Congress members
  - Legislation impacting: access to quality care, robust funding for rural care safety net, new models of care, telehealth and other technologies, bolster workforce
Programming to address food insecurity among cancer survivors

- Health care providers and insurers
  - Screening for food insecurity and referral to services
    - Food pantries (some onsite at health care providers)
    - Provision of food boxes (medically tailored food prescriptions)
    - Referral to services: SNAP, WIC, NSLP, pantries, Meals on Wheels, etc.

The 5-step process for food insecurity screening:
1. Identify patients living in food insecure households.
2. Connect patients with proper resources.
3. Consider clinical needs (e.g., risk of chronic diseases, increased health care costs).
4. Follow up with patients at next office visit.
5. Measure the impact of food insecurity programs on patients’ food insecurity status and health.

Hunger Vital Sign™
a 2-item food insecurity screener
Programming to address food insecurity among cancer survivors

- Grocery stores (e.g., Kroger): “Zero Hunger | Zero Waste” → end hunger in Kroger’s communities and eliminate food waste by the year 2025
  - Raising awareness on food insecurity
  - Lowering prices on nutritious food
  - Pilots to increasing access to healthy foods in high need communities
  - Donate fruits, vegetables, and proteins from their retail stores, manufacturing plants, and distribution centers to partner organizations (e.g., food banks)
  - Encouraging staff to volunteer in their community

In NE: Dillon’s, Baker’s, KwikShop
Areas of opportunity

- Transportation
- Lodging (e.g., Hope Lodges)
- Leveraging corporate funding
- Working with health care systems, providers, and insurers to implement screening and referrals
- Increasing health literacy and shared decision making in treatment
- Financial and patient navigation

Any examples that you have seen work in Nebraska? Or could work?
What are some potential solutions to address health inequity? (specific to rural cancer survivors or broader)

Solutions you have found in your own work that may apply and translate?
Can we accept that cancer is the leading cause of medical bankruptcy?
Questions? Discussion?

“Let food be thy medicine and medicine be thy food”
Hippocrates

Hollyanne E. Fricke, MPH
Senior Project Manager
Gretchen Swanson Center for Nutrition
hfricke@centerfornutrition.org

Courtney A. Parks, Ph.D.
Senior Research Scientist
Gretchen Swanson Center for Nutrition
cparks@centerfornutrition.org