



Tioga County, New York

It's the combination of programs that exist and work together. There aren't enough resources...so we work really hard at working together and filling gaps in creative ways.

—Jackie Spencer, Association Community Educator,
Cornell Cooperative Extension of Tioga County



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Owego, New York, is the county seat of Tioga County.

Anchored in the north by New York's Finger Lakes and divided in the south by the broad, meandering Susquehanna River, Tioga County is home to green rolling hills, hardwood forests, fertile farmland, and wide-open spaces.

The county seat, Owego, has a long history as a river and rail trade center. Today, it is a sleepy, quiet area with all the natural charms of a rural locale.

Life can be challenging here. Many families live in or at the margins of poverty. Twenty-one percent of youth are food-insecure. Nearly 32 percent of the county's housing was built before 1939, and a large number of residents live in older, minimally insulated homes ill-equipped to withstand the area's punishing winters. Basic services are located far from where many people live, making them difficult to access.

Yet good things are happening in Tioga County. Collaboration and resource sharing among regional and local nonprofit and government agencies are strong, and large private and public employers are investing in the community's health. A culture of volunteerism and resilience contributes to local solutions for challenges like food insecurity and transportation.

All these factors may help explain why Tioga County is among the ten percent of Appalachian counties—and one of two counties in Appalachian New York—identified as a Bright Spot, performing better than expected across 14 of 19 health outcome measures. For example, Tioga County performed better than expected on the following measures:

- Stroke mortality: 23 percent better than expected
- Infant mortality: 21 percent better than expected
- Heart disease mortality: 19 percent better than expected
- Suicide mortality: 17 percent better than expected
- Injury mortality: 17 percent better than expected

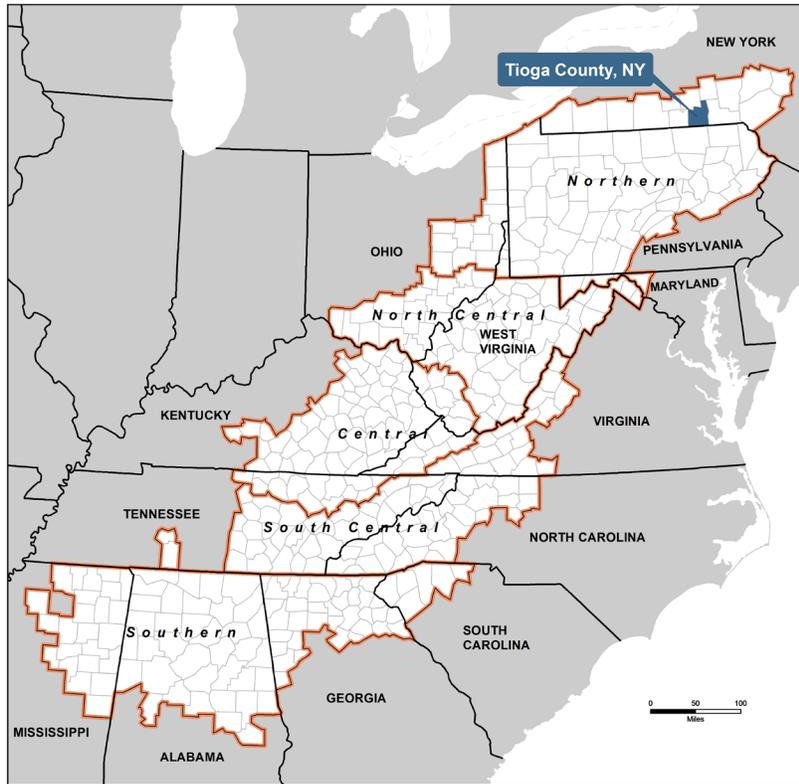
These better-than-expected results are likely influenced by local characteristics and strategies that improve overall well-being. The field work for this case study showed that Tioga County residents collaborate to improve care and well-being outside of core medical facilities. For example, residents have pooled resources to improve access to dental care for children. Many county initiatives depend on volunteerism. Volunteerism is valued on both the giving and receiving ends, and is a critical element of the community health network, especially in helping provide transportation to medical services and prescription pickup.

Tioga County's classification as a Bright Spot means that, on average, the county performed better than expected on a number of health outcome measures, given its characteristics and resources—that is, the socioeconomics, demographics, behaviors, health care facilities, and other factors that influence health outcomes. It does not mean that all residents here enjoy excellent health. In fact, the county still lags behind the rest of the nation on many health indicators. Like other counties with limited resources, Bright Spot counties face challenges to attaining good health outcomes. Tioga County's performance, however, indicates that certain county conditions or programs may be helping generate better-than-expected outcomes—and that other resource-challenged Appalachian counties may benefit from adopting similar initiatives.¹

¹ See Table 22 in the data appendix at the end of this case study for a full list of actual health outcomes for Tioga County compared with predicted outcomes. For details on the outcome measures, see the data files accompanying the report *Identifying Bright Spots in Appalachian Health: Statistical Analysis*.

COUNTY OVERVIEW

Figure 9: Map - Bright Spot Community Tioga County, New York



Tioga County represents a metropolitan county in Northern Appalachia. It is one of two Bright Spot counties in Appalachian New York.

Tioga County is located west of Binghamton in southwest New York State, in the “Southern Tier” of counties lining the Pennsylvania border. The county’s name comes from an Iroquois word describing a meeting place “at the fork.”

The population, currently about 50,000, fell more than three percent between 2000 and 2015. Ninety-seven percent of residents are white, and residents’ median age, 43.5, is higher than the national median, 37.8. The population is also relatively well educated: nearly 62 percent of adults in Tioga have some college education, compared with just over 63 percent nationally.

Employment is diversified, but higher salaries at Lockheed Martin and Crown Holdings, two national manufacturing and technology companies, affect county income averages. Tioga’s 2014 unemployment rate, 6.1 percent, fell just below the national rate of 6.2 percent. Classified by the Appalachian Regional Commission as a transitional county in fiscal year 2017, Tioga County’s median annual household income was \$52,195 in 2014, compared with the national median of \$56,135.²

² Table 20 in the Tioga County data appendix at the end of this case study provides a quantitative profile of county characteristics.

As part of the Binghamton metropolitan area, Tioga County enjoys the advantages of neighboring counties' educational, cultural, and economic development resources. Cornell University is 25 miles from the county center.

Although Tioga does not have a hospital, level-one and level-two trauma centers are within a half-hour drive of any location within the county. This compares favorably with many large cities, where traffic congestion can mean longer response and transportation times, even over shorter distances. It may also help explain why Tioga performs better than expected on mortality rates from poisoning, stroke, and injury, which are affected by the speed with which emergency treatment is provided.

People in Tioga County consider themselves resilient—able both to get by with the resources at hand and to pull together to recover from adversity. This community self-identification is rooted in a shared history of disaster and recovery.



A 2011 flood had a severe impact on Tioga County, including the village of Owego.

Because of its location and geography, Tioga County is vulnerable to catastrophic floods. Mountain peaks 5,000 feet high trap clouds and channel rain into narrow river valleys. Just in the past two decades, the county experienced major floods five times: in 1996, 2004, 2005, 2006, and 2011. The 2011 flood was the worst in modern times, putting 90 percent of Owego under water. Other parts of the region and state are also vulnerable, so resources for recovery are often spread thin, and local communities must work together to recover and rebuild. Tioga County's communities have been through this cycle a number of times.

Resilience is not just a buzzword here—it is attached to a real history of self-reliant recovery that includes resource sharing and creativity. This history also helps explain the strong culture of volunteerism in Tioga. There's a sense here that neighbors helping neighbors makes life in Tioga County possible for many people.

A DEEPER LOOK AT TIOGA COUNTY: COMMUNITY STRENGTHS

In many ways, Tioga County exemplifies the word “community.” It is a place where people recognize the need to work together—and are more than willing to do so—for the common good, even when it comes to sharing limited resources and giving up a degree of local or organizational control.

Field work helped identify local practices in Tioga County that appear to be contributing to overall health, document effective practices that could be replicated in other counties, and identify promising practices and strategies that should be explored further.³ Specifically, these factors were identified in Tioga County that may have contributed to better-than-expected results:

³ For a full explanation of the methodology, see Appendix B: Research Approach. For a list of key informants interviewed for this case study, see Table 21 in the data appendix at the end of this case study.

- **Regional and local cross-sector collaboration and resource sharing:** Within the county and across the Southern Tier region, cooperation and resource sharing among nonprofit and public agencies produce local solutions to shared challenges, such as access to transportation and food insecurity.
- **Volunteers meeting community needs:** Volunteerism is part of Tioga County’s culture. Small and large volunteer organizations are skilled at identifying and resolving issues, setting priorities, and committing resources to address local challenges. Volunteers often step up to fill gaps in government-funded services.
- **Employers that support health as a shared value:** Large private and public local employers provide a range of health benefits, including personal wellness services. Over the years, large national companies have established themselves as active community members who view good health as vital.

As in the other Bright Spot communities explored in this report, people in Tioga County have worked to elevate physical, social, and economic health in a number of ways. Their approaches fall into three general overarching categories of leadership, cross-sector collaboration, and resource sharing.

Community Leaders Engaged in Health Initiatives

In Tioga County, leadership is a platform for the collaboration necessary to make the best use of limited resources and ensure services and supports for everyone. This is critical given that Tioga County has no hospital, no pediatric specialists, and only one part-time dentist who accepts Medicaid.

Regionally, the **Rural Health Network of South Central New York**, a nonprofit organization based in adjacent Broome County, spearheads this type of coordination. The network brings together health care and social service leaders in its three focal counties—Tioga, Broome, and Delaware—and supports regional projects that involve other Southern Tier counties. These projects educate local citizens about wellness practices and healthy lifestyle options; build infrastructure that supports physical activity, such as biking and hiking trails; and improve access to health care services.

The nonprofit community also plays a strong leadership role. The **Tioga County Non-Profit Network** meets quarterly to exchange ideas and information to serve residents’ needs. Representatives from approximately 20 groups attend these meetings, which are facilitated by the head of the Tioga County (Cornell University) Cooperative Extension Service. These discussions often lead to collaborative approaches to local challenges.

Opioid abuse is one area where nonprofit leadership has been essential. **Tioga County Allies in Substance Abuse Prevention** holds quarterly panel discussions with parents, law enforcement personnel, and mental health counselors on this issue, and operates a coalition of volunteer representatives from local school districts, nonprofits, and the general community, including parents.

In addition, several large employers actively invest in community health, which they view as vital to maintaining their workforces. These public and private organizations offer a range of health benefits, health education, and other opportunities to help Tioga residents pursue personal health improvement.

Lockheed Martin is one of the largest and oldest employers of Tioga County residents, with health benefits that include not only comprehensive health coverage but also a robust employee health program

that offers free flu shots, free onsite health screenings, and access to walking paths and weight management groups. These benefits are available to employees and their family members.

Crown Holdings, Inc., which manufactures metal packaging products, is another large employer with an employee health care package that covers medical, dental, and vision care, and prescription drugs; a tuition assistance program for employees who wish to return to school; and disability coverage under an accident and health plan.

One of the largest public employers in the county, the Owego Apalachin Central School District, is unionized and offers its employees excellent health benefits. Another large employer, Tioga Downs Casino, is also unionized and offers health benefits.

Cross-Sector Collaboration

In Tioga County, researchers found a pattern of cooperation among health care providers, planners, educators, and other decision makers. Leaders here see collaboration as critical to ensuring that their communities thrive. Collaboration is pervasive across sectors, organizations, and programs within the county, and with other counties in the region.

As mentioned, the Rural Health Network of South Central New York serves as a forum for sharing ideas and information, coordinating grant-seeking activities, and reducing funding competition for area health initiatives. This high level of cooperation across counties helps ensure that everyone gets the services they need, especially in lean times.

There is also significant collaboration among nonprofits, government agencies, and health and advocacy groups. For example, **Family Health Services for Tioga Opportunities, Inc.**, a nonprofit safety net service provider, collaborates with the county health department on testing services; with the extension service on breastfeeding support groups; and with Lourdes Hospital on pregnancy education for young women. Another project with nearby primary care practices helps community members get transportation for their medical appointments.

In addition, **CASA-Trinity**, an alcohol and substance abuse prevention center, pools the efforts of professionals and citizens, and the Tioga Health Coalition promotes health throughout the county. Again, these efforts reflect an orientation toward sharing resources of time and expertise in ways that address local problems in the absence of financial resources and outside support.

Collaboration has made dental care available in the county. Although dental care for children of low-income families is a critical need in Tioga County, the state does not provide funding for it. The local response was to create a mobile dental services program that employs a van equipped to provide basic dental services to schoolchildren around the county. The dental division of **Tioga County Public Health** worked with school administrators to get the program up and running. Adults can also get dental services through the van before and after school and during school vacations. Tioga County Public Health similarly supports a mobile program that provides mammograms to low-income women in outlying parts of the county.

Resource Sharing

Because Tioga County has so few health care providers, regional sharing of health care resources is crucial. Residents have access to high-quality health care from providers in neighboring counties, including level-one and level-two trauma centers, as well as satellite outpatient clinics that operate in and

near Tioga County. Traveling outside the community for health care is typical, but, for most people, not onerous.

Within the county, researchers found a strong pattern of resource sharing among social services and health providers. For example, the newly renovated Tioga County Health and Human Services building is perceived as the area's most valuable safety net resource, housing agencies providing services related to health care, mental health, employment, food stamps, and other assistance. Because these services are all located in one building, it is much easier and more convenient for residents to get the assistance they need. What's more, that assistance is better coordinated among the various service providers.

Volunteerism is another form of resource sharing that plays a key role in Tioga County. Residents here take pride in helping each other through extensive volunteer networks. In fact, people interviewed during the field work consistently cited volunteer-led grassroots initiatives for solving local challenges—such as lack of access to transportation, food insecurity, and substance abuse—undertaken because of limited resources and outside assistance. Services such as conflict mediation, arbitration, court assistance, fire and safety support, emergency response, and youth leadership are frequently provided by volunteers instead of through tax dollars. Nonprofit groups, schools, and employers all actively encourage and support community volunteering.

Nonprofits in Tioga County value their volunteers; many organizations provide support and training, while some provide insurance coverage. They are also mindful of the need to maintain an influx of younger volunteers to keep their organizations going. And county policy makers recognize that funding is essential to support volunteer programs so they can operate effectively.

Volunteerism has been crucial to meeting public transportation needs. In 2014, the Tioga County government ended the public transit van service on which many residents relied, leaving them with no way to get to medical appointments or pick up prescriptions. (New York State had reduced its transportation subsidy, making the service unsustainable.) In response, citizen groups sprung up across the county to replace the van service. These all-volunteer groups, including the **Community Care Network of Nichols** and **Neighbors Helping Neighbors** in Richford, provide transportation to people who need it. Others are stepping in and sharing resources like vehicles and fuel.

Food insecurity and nutritional risk are also challenges for low-income families in parts of the county. Other than one or two well-run mom-and-pop food stores in each of the county's six villages, two supermarkets on either side of Owego serve Tioga's residents. Over the past 15 years, these markets have changed ownership a few times, with each change resulting in a reduced variety of foods available for residents. Local farms and community gardens offer fresh produce at outdoor farmers' markets during the growing season, and many of these markets accept food stamps.

Similar to the response that the public transportation crisis elicited, several organizations stepped up to provide nutrition assistance, including the Open Door Mission, Tioga County Rural Ministry, the Anti-Hunger Task Force, and Meals on Wheels. These organizations are largely dependent on volunteers. In addition, Tioga County citizens have organized backpack and lunchbox food programs for low-income schoolchildren.



Mary Beth Jones
*Dot Richter, executive director of the
Community Care Network of Nichols*

Local citizens and social service professionals have started a range of service organizations that depend largely on volunteer and in-county support. These groups include the Finger Lakes Parents Network, for parents with developmentally disabled children; the New Hope Center, a resource center for victims of domestic violence; a Healthy Neighborhoods program that provides free in-home safety assessments; the Bridge, a network of churches that helps educate congregation members on community issues; and Reality Check, a youth tobacco-control project.

Throughout Tioga County, concern for the health and well-being of children and youth is evident. Two family resource centers in Tioga County offer parenting education and host parent-child activities. Resource center staff are also available for home visits to provide further support for low-income parents. In addition, use of the Supplemental Nutrition Assistance Program (SNAP) is on par with the national average (76 percent and 78 percent, respectively). Services include nutrition education for low-income women who are pregnant or already have children. These supports may contribute to Tioga County's better-than-expected rates of infant mortality and low-birth-weight births. Concern for youth safety and well-being is also apparent in the countywide push for tobacco-free establishments and spaces such as parks and community fairs.

CREATING A CULTURE OF HEALTH IN TIOGA COUNTY

Tioga County may be lacking in financial resources and other advantages, but it is rich in other critical health-promoting assets: a culture of collaboration and volunteerism, resilience and resourcefulness in the face of adversity, an ability to respond quickly to new challenges, and a strong sense of community pride and altruism. The region's history of pulling together to recover from natural disasters may have helped strengthen social cohesion. Partnership and pooling of resources are evident both within Tioga County and across the Southern Tier region, where communities work together to address issues such as food insecurity and transportation.

Particularly noteworthy in Tioga County is the tradition of volunteerism, which seems to be part of the way of life here. Volunteers often fill significant gaps in government-funded services addressing issues ranging from transportation to emergency response and safety to youth leadership to food insecurity. Nonprofits, schools, and employers all support volunteer programs and activities.

Employers support community health by providing a range of health benefits, including personal wellness services. This is particularly important given that Tioga has no hospital of its own and a shortage of care providers. With good health benefits, residents are better able to get the health care services they need from providers outside the county.

These assets, though difficult to measure, make for a community where people feel connected to each other, look out for each other, and help each other. They also contribute to a community where health, in many ways, is better than expected—and has the potential to become even better.

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APPENDIX: TIOGA COUNTY DATA**Table 20: Tioga County Characteristics**

Characteristic	Tioga County	United States
Population, 2010–2014	50,464	314,107,084
Percent population change, 2010–2015	-3.30%	4.10%
Median age, 2015	43.5	37.8
Percent of persons over age 65, 2015	18.30%	14.90%
Median household income, 2014	\$52,195	\$56,135
Per capita income in past 12 months (in 2015 dollars), 2011–2015	\$29,427	\$28,930
Unemployment rate, 2014	6.1%	6.2%
Percent persons in poverty, 2014	11.4%	15.6%
Percent white alone, 2015	96.70%	77.10%
Percent black alone, 2015	1.00%	13.30%
Percent adults with at least some college, 2010–2014	61.67%	63.27%
Distance to nearest large population center from county center	Ithaca, NY – 28.4 mi.	N/A
ARC designations, fiscal year 2017	Transitional Northern Appalachia	N/A

Source: These data are compiled from the U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics, 2014, and the U.S. Census Bureau American Community Survey Selected Social Characteristics, General Economic Characteristics, Demographic and Housing Characteristics, and Educational Attainment Tables for years 2010–2014 and 2011–2015.

Table 21: Tioga County Key Informants

Name	Location	Title	Organization	Interview Date
Elaine D. Jardine	Owego	Planning Director	Tioga County Economic Development and Planning Office	1/30/2017
Mary Maruscak	Owego	Population Health Coordinator	Rural Health Network of South Central New York	1/30/2017
Jackie Spencer	Owego	Family Development Program Leader	Family Resource Center – Cornell Cooperative Extension	1/30/2017
Susan Medina	Owego	Director of Dental Services	Public Health Department	1/30/2017
Shawn Yetter	Owego	Commissioner	Social Services Department	1/31/2017
Cara Zampi	Owego	Community Educator – Tobacco Free Tioga and Reality Check Programs	Cornell Cooperative Extension	1/31/2017
Sara Begeal	Owego	Clinical Director	Tioga County Community Services Board	1/31/2017
Nancy Glasgow	Owego	Director, Family Health Services	Tioga Opportunities, Inc.	1/31/2017
John Holton Jr.	Owego	Director	Veterans' Service Agency	2/1/2017

Table 22: Tioga County Health Outcomes – Actual vs. Predicted

Outcome Measure	Actual	Predicted	Percentage Difference (negative = better)
Stroke mortality per 100,000 people, 2008–2014	31.24	40.78	-23.4%
Infant mortality per 1,000 births, 2008–2014	5.36	6.80	-21.1%
Heart disease mortality per 100,000 people, 2008–2014	165.12	203.77	-19.0%
Suicide mortality per 100,000 people, 2008–2014	10.56	12.77	-17.4%
Injury mortality per 100,000 people, 2008–2014	36.63	44.06	-16.9%
COPD mortality per 100,000 people, 2008–2014	41.17	47.80	-13.9%
Percentage of adults with diabetes, 2012	10.10%	11.31%	-10.7%
Opioid prescriptions as a percent of Part D claims, 2013	4.38	4.65	-5.8%
Percentage of Medicare beneficiaries w/ depression, 2012	13.80%	14.96%	-7.7%
Low-birth-weight births (<2,500 g) per 1,000 births, 2007–2013	7.39	7.94	-6.8%
Cancer mortality per 100,000 people, 2008–2014	165.90	177.10	-6.3%
Years of potential life lost, 2011–2013	6,637	6,927	-4.2%
Percentage of excessive drinkers, 2014	18.70%	19.67%	-4.9%
Average Medicare condition score, 2013	0.97	0.99	-2.5%
Poisoning mortality per 100,000 people, 2008–2014	14.00	13.95	0.3%
Physically unhealthy days per month per person, 2014	3.10	3.03	2.2%
Mentally unhealthy days per month per person, 2014	3.40	3.33	2.0%
Percentage of obese adults (>30 BMI), 2012	31.5%	30.7%	2.6%
Heart disease hospitalizations per 1,000 Medicare beneficiaries, 2012	60.10	54.60	10.1%

Notes:

Percentage Difference = $100 * [(Actual / Predicted) - 1]$

Green = County value was better than predicted

For details on the outcome measures, see the data files accompanying the report *Identifying Bright Spots in Appalachian Health: Statistical Analysis*.

Table 23: Tioga County Health Drivers vs. National Median

Driver Measure	Lower is Better?	National Median	Tioga County
Air pollution (average daily particulate matter 2.5), 2011	Yes	11.87	11.92
Average travel time to work in minutes, 2010–2014	Yes	22.82	23.68
Chlamydia incidence rate per 100,000, 2013	Yes	287.16	231.78
Dentists per 100,000 population, 2014	No	37.45	18.05
Economic index, fiscal year 2017	Yes	108.79	92.29
Full-service restaurants per 1,000, 2012	No	0.68	0.81
Grocery stores per 1,000 residents, 2012	No	0.20	0.20
Median household income, 2014	No	\$45,226.00	\$52,195.00
Mental health providers per 100,000 population, 2015	No	80.00	129.87
Percentage of adults currently smoking, 2014	Yes	17.8%	14.2%
Percentage of adults not physically active, 2012	Yes	27.7%	26.6%
Percentage of adults with at least some college, 2010–2014	No	56.3%	61.7%
Income inequality ratio, ⁴ 2010–2014	Yes	4.4%	4.5%
Percentage of diabetics with A1C testing, 2012	No	85.4%	86.4%
Percentage of doctors who e-prescribe, 2014	No	65.0%	92.0%
Percentage of eligibles enrolled in SNAP, 2014	No	78.0%	76.0%
Percentage of households with income below poverty, 2014	Yes	15.8%	11.4%
Percentage of Medicare women with recent mammogram, 2013	No	61.0%	63.0%
Percentage of population with access to places for physical activity, 2011 and 2014	No	61.9%	70.8%
Percentage of total population in social assistant jobs, 2013	N/A	0.01%	0.01%
Percentage receiving disability OASDI and/or SSI, 2014	Yes	5.4%	5.8%
Percentage spending >30% of income on housing, 2010–2014	Yes	29.0%	27.2%
Percentage w/ no car, low access, 2010–2014	Yes	19.7%	14.8%
Primary care physicians per 100,000 population, 2013	No	48.54	29.85

⁴ Income inequality is the ratio of household income at the 80th percentile to that at the 20th percentile. A higher ratio reflects greater division between the top and the bottom of the income spectrum.

Driver Measure	Lower is Better?	National Median	Tioga County
Social associations per 10,000 population, 2013	No	12.68	13.73
Specialist physicians per 100,000 population, 2013	No	25.93	37.65
Students per teacher, 2013–2014	Yes	14.13	12.76
Teenage births per 1,000, 2007–2013	Yes	39.96	29.98
Uninsured rate for people under 65, 2013	Yes	17.24	9.37

Notes:

Green = County value was better than national median

For details on the driver measures, see the data files accompanying the report *Identifying Bright Spots in Appalachian Health: Statistical Analysis*.