Linking Poverty to Health Outcomes: Alcohol Abuse in Chronically Poor Rural Areas

Page Minton
Washington and Lee University
Poverty 423
Dr. Harlan Beckley
April 22, 2012

Health is often narrowly viewed as the absence of disease, and access to health care is commonly seen as the cure that eliminates diseases. For that reason, many are quick to explain the pronounced disparities in health status among high-income and low-income persons to differential access to health care. Although one's ability to obtain medical services is a factor in maintaining health, recent cross-national studies point to a powerful relationship between the degree of socio-economic inequality in a country and the gradient of health inequality within a country.[1] Even in countries with universal access to health care, an individual's chances of life and death are closely associated with social class, suggesting the existence of other, possibly more valuable, pathways linking poverty to poor health outcomes.[2] These studies thus call for a broader consideration of what affects the disproportionately worse health statuses of impoverished Americans. Access to health care is not the only answer; rather access should be combined with confronting social determinants of poor health, which according to the World Health Organization's report include: "social gradient, stress, early life, social exclusion, work, unemployment, social support, addiction, food, and transport." [3]

Government statistics list heart disease, cancer, stroke, chronic lung and liver disease, diabetes, and injuries as our nation's major killers, but truly understanding causes of mortality in the United States and why mortality rates for these diseases are higher among impoverished persons requires a keener examination of what habits underlie these statistics.[4] [5] While lung cancer, for instance, may be the proximal cause of death, the actual cause of death may be more

---

[1] Norman Daniels, Bruce Kennedy, and Ichiro Kawachi. "Health and Inequality, or Why Justice is Good for Our Health," In *Public Health, Ethics, and Equity*, ed. Sudhir Anand et al. (New York: Oxford University Press, 2004), 63.
[2] Ibid., 63.
[3] World Health Organization. "Social determinants of health: the solid facts," 2nd ed, ed. Richard Wilkinson and Michael Marmot (Denmark: World Health Organization, 2003), 7.
[4] Tom Farley and Debra A. Cohen. *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World.* Boston: Beacon Press, 2005, 6.
[5] Ibid., 207.

distal, such as a lifelong habit of smoking. Studies that examine the "actual" cause of death support the notion that there is no single cause of death, but rather a web and chain of causes that result in a person's "listed" cause of death.[6] Strikingly, these analyses reveal that "about half of all deaths in the United States are caused by individual human behavior: too many of us smoke, drink alcohol, eat a high-calorie and high-fat foods, don't get enough exercise, and use cars and guns to kill ourselves and each other."[7] And, those Americans facing a disproportionately higher tendency to partake in damaging health behaviors such as smoking, excessive drinking, drug use, or unhealthy diet, are low-income persons.[8] Poverty in the absolute sense characterizes deprivation, but ironically for poor Americans, the leading causes of death are "diseases of excess,"[9] indicating the pertinence of considering the role of *relative* poverty, defined in relation to the average resources available in a society, on health outcomes.[10]

A short-sighted response would point to individual responsibility as the key determinant of one's health behaviors, but this discounts the fact that the development of ill-formed health habits likely comes as a result of where and how the poor live.[11] The surrounding environment encourages poor persons to behave in ways that are detrimental to health, but still "unhealthy behaviors together account for less than half of the social differences in mortality." [12] So, understanding the health status of the poor requires examining the interaction between material

---

[6] Foege and McGinnis qtd. in Farley and Cohen, *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World*, 17.
[7] Farley and Cohen, *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World*, 18.
[8] Ibid., 210.
[9] Ibid., 208.
[10] Deborah A. Cohen, Thomas A. Farley, and Karen Mason. "Why is poverty unhealthy? Social and physical mediators," *Social Science and Medicine* 57 (2003), 1632.
[11] Farley and Cohen, *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World*, 210.
[12] Ibid., 211.

disadvantage and its social implications,[13] which include the effects of living in environments that are conducive to acquiring health-damaging tendencies, and also the endured impact of disparities in functioning that come as a result of living in poverty.

The interlocking structures of a life in poverty create disparities in far more than health, which can then ultimately have a cumulative negative effect on one's health. As Norman Daniels points out, "health care is but one of many socially controllable factors affecting population health and its distribution," and this calls for a consideration of the moral importance of meeting one's health needs in conjunction with actual health care needs.[14] Therefore, health needs are broadly defined to include: adequate nutrition, safe and sanitary living conditions, lifestyle features, preventative, curative, rehabilitative, and compensatory medical services (and devices), nonmedical personal and social support systems, and finally appropriate distribution of other social determinants of health.[15] Meeting one's set of health needs promotes normal functioning and protects opportunity,[16] two essential components, aside from health status that Amartya Sen argues are lacking for one living in poverty.

The lifestyle component of health needs includes essential activities like exercise and rest, but it also incorporates one's ability to avoid substance abuse and practice safe sex. Not surprisingly, alcohol, the third leading "actual cause of death" in the United States,[17] is consistently associated with factors that typically characterize a life in poverty. The

---

[13] World Health Organization. "Social determinants of health: the solid facts," 9.
[14] Norman Daniels, *Just Health: Meeting Health Needs Fairly*. New York: Cambridge University Press, 2008, 29-30.
[15] Ibid., 42-43.
[16] Ibid., 30.
[17] Linnae Hutchison and Craig Blakely, "Substance Abuse—Trends in Rural Areas: A Literature Review," *Rural Healthy People 2010: A Companion Document to Healthy People 2010,* Vol. 2 *(*College Station Texas: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center, 2003), 146.

stigmatization and stresses of an impoverished lifestyle are significantly magnified when one considers that in addition to outright worse health status and shortcomings in almost every category of health needs, impoverished persons may have a tendency to abuse alcohol.

In this paper, I will examine the impact of alcohol abuse among the poor in rural areas, using personal experiences from a summer in Phillips County, Arkansas as an illustrative case for how society should view the effects of poverty among the rural poor. Social determinants of higher incidence of alcohol abuse in rural areas will be connected to chronic poverty in a rural area highlighting age, availability of alcohol, education, unemployment, access to prevention and treatment programs, and generally the stresses and characteristics of a life in poverty that increase the likelihood of consuming and abusing alcohol. While alcohol consumption is often considered a problem of personal responsibility, I show that social determinants play a large role in how alcohol consumption habits and disease develop. Through my analysis of alcohol abuse in rural areas, I advocate the need for developing diversified health care policies that adequately address the health needs of a certain area. This diversified health care policy will require cooperation from a number of institutions to effectively reduce the incidence of alcohol abuse disorders. The use of therapeutic care in treating alcohol abuse is well supported and is in fact an issue in chronically poor rural areas, but this paper seeks to focus more on how the social determinants of rural poverty magnify the development of abuse problems. Examining alcohol abuse among poor rural Americans emphasizes the importance of a moral and just approach to health care policy. The combined detrimental effects of both an impoverished lifestyle and

alcohol on health threaten one's normal functioning and individual freedom, which ultimately damages the ability to live a personally valuable life.[18]

Relationship between Alcohol and Health Outcomes

The graded health impacts of certain unhealthy behaviors across different social groups, defined by differences in gender, race, social class, occupational status, and socio-graphic location[19] are manifest when considering how alcohol abuse affects poor rural Americans. In the United States, alcohol is the substance of choice among both youth and adults alike, with the CDC Summary of Health Statistics in 2010 estimating that 51% of adults 18 years of age and over were considered current regular drinkers.[20] [21] The ease of access, relatively cheap price, and its ability to elicit feelings of euphoria and release anxiety make alcohol consumption attractive to users. But, alcohol consumption, which often leads to overconsumption, is also associated with a number of health risks, including contributing to or causing: "infectious diseases, cancer, diabetes, neuropsychiatric disorders (including alcohol use disorders), cardiovascular disease, liver and pancreas disease, and unintentional injury." [22] Consumption and overconsumption also produce a number of social harms, including "family disruption, problems at the workplace (including unemployment), criminal convictions, and financial problems." [23] For a person in poverty, short-term economic costs of alcohol consumption should be

[18] Amartya Sen. *The Quality of Life*. Oxford: Clarendon Press, 1993, 35.

[19] Fabiene Peter. "Health Equity and Social Justice," In *Public Health, Ethics, and Equity*, ed. Sudhir Anand et al., (New York: Oxford University Press, 2004), 93.

[20] U.S. Department of Health and Human Services. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2010. *Vital & Health Statistics* (Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control, National Center for Health Statistics, 2012), 36.

[21] Regular drinking is defined as having at least 12 drinks in the past year. U.S. Department of Health and Human Services. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2010, 76.

[22] Jürgen Rehm, "The Risks Associated with Alcohol Use and Alcoholism", *Alcohol Research & Health*, 34 (2011): 135.

[23] Ibid., 141.

considered, but more concerning is the fact that of the estimated 15.1 million people nationwide who abuse alcohol,[24] lower-SES Americans, or those least fit to cope with the health and social burdens that may come with overconsumption of alcohol, are those more inclined to drink to excess.[25] [26]

With an increase in drinking beyond one standard drink [27] per day associated with an increased net risk for morbidity and mortality,[28] general alcohol consumption is a concern, but more severe health and social risks to both the drinker himself and others come as a result of heavier drinking patterns. According to a study, most of the burdens associated with alcohol use stem from consuming higher volumes of alcohol, as defined by drinking more than 40 grams of pure alcohol per day for men and 20 grams of alcohol per day for women," in addition to patterns of drinking, "especially irregular heavy-drinking occasions, or binge drinking."[29] [30]

Human costs aside, The National Institute of Alcohol Abuse and Alcoholism estimated in 1998 that "alcohol cost society $184 billion, including $26 billion in health care, $134 billion in lost productivity, and $24 billion in other costs like damage from car crashes."[31] Alcohol consumption is most commonly associated with alcohol use disorders (AUDs), including alcohol dependence and alcohol abuse, which are "maladaptive patterns of alcohol consumption

---

[24] Boyd, M.R. qtd. in Hutchison and Blakely, "Substance Abuse—Trends in Rural Areas: A Literature Review," 146.
[25] Cohen et al., "Why is poverty unhealthy? Social and physical mediators," 1631.
[26] Data directly linking poverty to alcohol abuse is limited, and there are statistics reporting alcohol dependence and consumption to those with higher incomes and education levels. However, Grant also reports that lower-SES persons were more likely to persist in their dependence once it occurred. Bridget F. Grant, "Prevalence and Correlates of Alcohol Use and DSM-IV Alcohol Dependence in the United States: Results of the National Longitudinal Alcohol Epidemiologic Survey," *Journal of Studies on Alcohol* 58 (1997): 470.
[27] Standard drink usually contains 0.6 fluid ounces of pure alcohol. This is the amount found in approximately 12 oz beer, 5 oz wine, or 1.5 oz distilled spirits. Rehm, "The Risks Associated with Alcohol Use and Alcoholism", 135.
[28] Ibid., 140.
[29] Ibid., 135.
[30] Binge drinking is defined as at least 60 grams of pure alcohol or five standard drinks in one sitting; Rehm, "The Risks Associated with Alcohol Use and Alcoholism", 135.
[31] Farley and Cohen, *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World*, 164.

manifested by symptoms leading to clinically significant impairment or distress."[32] Although both alcohol dependence and abuse pose severe health threats, this paper focuses on alcohol abuse for multiple reasons explained in the following paragraphs.

Prevalence of Alcohol Abuse

When considering health care policies, medical experts and politicians tend to target only those persons who lie at the extremes of health because they are falsely perceived to be hurting the nation's health status the most. This claim holds true when one compares the efforts focused on reducing alcohol dependence rather than alcohol abuse and realizes that shifting attention to the problem of abuse might be more effective. According to the 2006 National Survey on Drug Abuse and Health (NSDUH) which looks at the prevalence of substance abuse disorders in the past 12 months, 18.7 million Americans were considered dependent on or had abused alcohol.[33]

The National Epidemiologic Survey on Alcohol and Related Conditions further breaks these statistics down, estimating that AUD effects 8.5% of adults, 4.7% with alcohol abuse and 3.8% with alcohol dependence, and higher AUD prevalence among men (12.4%) and young adults (16.2% in age group 18-29).[34] According to guidelines specified in the *Diagnostic and Statistic Manual of Mental Disorders* (DSM-IV), substance abuse is marked by recurring substance use that results in a failure to fulfill major role obligations at work, school, or home, recurrent continued substance-related legal problems, and continued substance abuse despite persistent

---

[32] Deborah S. Hasin, Frederick S. Stinson, Elizabeth Ogburn, and Bridget F. Grant, "Prevalence, Correlates, Disability, and Comorbidity of DSM-IV Alcohol Abuse and Dependence in the Unites States: Results from the National Epidemiologic Survey on Alcohol and Related Health Conditions," *Archives of General Psychiatry* 64 (2007): 830.

[33] Arthur Hughes, Neeraja Sathe, and Kathy Spagnola, *State Estimates of Substance Abuse from the 2006-2007 National Surveys on Drug Use and Health* (Rockville, MD: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, 2009), 57.

[34] Hasin et al. qtd. in Samokhvalov et al., "Disability Associated with Alcohol Abuse and Dependence," *Alcohol Clinical and Experimental Research* 34 (2011): 2.

social and interpersonal problems caused or exacerbated by it.[35] Interestingly, the past two decades have been an important time period for understanding the complexity of AUDs, and it was not until 1994 that the American Psychiatric Association began to differentiate between alcohol abuse and dependence.[36] To be diagnosed with alcohol dependence, a person must exhibit at least four of the following criteria:

> Drinking more alcohol than intended, unsuccessful efforts to reduce alcohol drinking, giving up other activities in favor of drinking alcohol, spending a great deal of time obtaining and drinking alcohol, continuing to drink alcohol in spite of adverse physical and social effects, and the development of alcohol tolerance.[37]

But, a greater number of Americans suffer from alcohol abuse without meeting the criteria for dependence, and continued excessive alcohol consumption eventually leads to the development of dependence.

As the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) points out, thinking only about the severe end of the spectrum of alcohol related consequences provides a superficial idea of how alcohol abuse and dependence affect the population as whole.[38] The transition to alcohol dependence involves a number of steps: initial use, regular use, abuse, and dependence. Each of these steps is tied to a number of sociodemographic factors. All drinkers assume the risks associated with alcohol consumption, but simply comparing usage rates among lower and higher SES persons, in either rural or urban areas, does not to capture the importance of considering the effect alcohol has on impoverished rural populations. In fact, a

---

[35] Karen Van Gundy, "Substance Abuse in Rural & Small Town America," *Carsey Institute Reports on Rural America,* 1(2006): 11.
[36] Rebecca Gilbertson, Robert Prather, and Sara Jo Nixon. "The Role of Selected Factors in the Development and Consequences of Alcohol Dependence," National Institute on Alcohol Abuse and Alcoholism, accessed March 16, 2012, http://pubs.niaaa.nih.gov/publications/arh314/389-399.htm, 1.
[37] Howard Becker, "Alcohol Dependence, Withdrawal, and Relapse," National Institute on Alcohol Abuse and Alcoholism, accessed March 16, 2012. http://pubs.niaaa.nih.gov/publications/arh314/348-361.htm, 1.
[38] U.S. Department of Health and Human Services. National Epidemiologic Survey on Alcohol and Related Conditions, *Alcohol Alert*. U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism, 2006: 1.

study based on results from a 1997 National Longitudinal Alcohol Epidemiologic Survey, reported that:

> The most highly educated, married, and wealthiest respondents were more likely to use alcohol, but less likely to become dependent and to persist in dependence compared to respondents of lower education, divorced or widowed and respondents with lower income, respectively. [39]

Therefore, it may not necessarily be that an impoverished lifestyle causes a person to use alcohol more so than a wealthier counterpart, but it does seem that initiating use, combined with the components of a life in poverty, increase the likelihood of transitioning from use and abuse to dependency.

Social Determinants of Alcohol Abuse

Kalaydijan et al. find that "male sex, younger age, white ethnicity, lower education, and never or previous married status were generally consistent predictors of the onset and transition from use to regular use and from regular use to abuse,"[40] indicating the importance of understanding the differential roles that certain social factors may have on the trajectory of alcohol use and disorders. *Substance Abuse in Rural and Small Town America*, echo these findings, reporting that alcohol abuse tends to be related to a number of factors, including: demographic characteristics, such as age, sex, and race, socioeconomic factors such as education or employment status, family configuration, and community-linked perceptions. [41] Undoubtedly, the implications of such findings reverberate when one considers the combined effects of a greater tendency to partake in unhealthy behaviors as a result of living in poverty with the unique characteristics of living in a rural area.

[39] Grant, "Prevalence and Correlates of Alcohol Use and DSM-IV Alcohol Dependence in the United States: Results of the National Longitudinal Alcohol Epidemiologic Survey," 464.
[40] Kalaydijan et al., "Sociodemographic predictors of transitions across stages of alcohol use, disorders, and remission in the National Comorbidity Survey Replication," *Comprehensive Psychiatry* 50 (2009): 304.
[41] Van Gundy, "Substance Abuse in Rural & Small Town America," 15.

Social Determinants of Alcohol Abuse in Chronically Poor Rural Areas

Rural America constitutes 17 percent of the nation's population, covers 80 percent of the land, and contrary to stereotypical beliefs, is far from immune to the devastating effects of poverty.[42] Industries that once sustained rural people and places have gradually declined, leaving behind a number of broken communities that face enormous challenges from employment to community development to an overwhelming lack of education, all with little hope of revitalization. The Carsey Institute on Reports on Rural America divides rural places into four broad types: amenity-rich, declining resource-dependent, chronically poor regions, and a transitional type characterized by both amenity-driven growth and resource-based decline.[43] These four categories also reflect the high-degree of diversity one finds in rural places, each characterized by unique beliefs, social structures, economic conditions, and interactional processes that directly influence health outcomes possibly through pathways such as alcohol abuse. The isolated nature of rural areas that once seemed protective has been replaced by stressful economic conditions in a number of sectors of contemporary rural society, causing periods of chronic economic declines, poverty rates similar and at times greater than urban areas, and an out-migration of the most prosperous, educated, and younger rural citizens.[44]

The effects of the declining of rural America, combined with the more permeating effects that cultural values have on residents given a more intimate communal structure, present qualities of rural life that are essential to understanding why the problems associated with alcohol abuse become magnified in chronically poor rural areas. First, smaller communities

---

[42] Lawrence C. Hamilton, Leslie R. Hamilton, Cynthia M. Duncan, "Place Matters: Challenges and Opportunities in Four Rural Americas," *A Carsey Institute Report on Rural America*, 1 (2008): 6.
[43] Ibid., 3.
[44] Rand D. Conger, "The Special Nature of Rural America," In *Rural Substance Abuse: State of Knowledge and Issues*, ed. National Institute on Drug Abuse Research Monograph 168, ed. Robertson et al., (Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, 1997), 41.

likely have greater solidarity and network supports, relying heavily on adult networks to provide control mechanisms capable of reducing substance use and abuse.[45] Second, given the isolated nature of rural America, as well as the fact that different rural communities may vary widely in the amount of substance abuse, there are strong links between cultural, socioeconomic, and ethnic characteristics within a community that increase risks for substance abuse.[46] Lastly, there is typically a scarcity of effective abuse services because of widely dispersed populations and an unclear understanding of the role of cultural beliefs across different rural communities.[47] Conger's analysis of the problems associated with alcohol abuse in chronically poor rural areas were validated for me following eight weeks spent in Phillips County, Arkansas.

Hamilton et al. describe chronically poor rural areas as both rich in history and hardship, with decades of resource depletion and underinvestment leaving behind broken, dysfunctional communities with ineffective leadership and inadequate infrastructure, generations of families relegated to poverty as a result of inadequate education and weak civic institutions, and a seemingly dim future.[48] This describes Phillips County, a small rural county in the Mississippi River Delta, racked by severe economic decline, limited job opportunities, social divisions, high rates of violence and crime, horrid health outcomes, and disproportionate levels of poverty. Once a prosperous area, the closing of the Mohawk Rubber and Tire plant in 1979 marked a turning point in the history of Phillips County, initiating widespread joblessness and outmigration that reduced the population 21.3 percent from 1980-1998.[49] Today, poverty has gripped this once-thriving area. The historic downtown is dominated by run-down, vacant

[45] Ibid., 49.
[46] Ibid., 50.
[47] Ibid.
[48] Hamilton et al., "Place Matters: Challenges and Opportunities in Four Rural Americas," 6.
[49] Samara Francisco. "The Economic Necessity of Social Capital: A Case Study in Phillips County, Arkansas." Washington and Lee University, 2010, 5.

buildings; neighborhoods littered with trash and neglected property; groups of children and youth roam the streets, falling victim to detrimental behaviors like violence and premature sexual activity due to a lack of outside stimulation and a failing public school system; fast-food chains, liquor stores, and gas stations dominate the landscape. An underlying racial division persists in the community, creating a clear divide between the impoverished African-American majority and a shrinking, predominantly white middle class.

A conglomerate of statistics evidences the multifaceted nature of poverty that permeates Phillips County. According to the United States Census, as of 2009, 34.9 percent of the population lives in poverty, with 50 percent of children considered poor, which means that Phillips County is poorer than both state and national averages that report 17.7 percent and 13.2 percent, respectively.[50] In terms of education, 62.2 percent of Phillips County residents over age 25 have a high school degree, and 12.4 percent have a college degree, compared to 75.3 percent and 16.7 percent of Arkansas residents.[51] To add to these dismal statistics, the 2005-2009 American Community Survey reports a 14.9 percent unemployment rate for the civilian labor force in Phillips County, which is double the state and national averages.[52] Furthermore, the measured unemployment rate does not include the large number of persons who are in need of work, but are not actively seeking employment.

The relationship between these statistics and health outcomes is well documented. It is not surprising that Phillips County also ranked worst out of all 75 counties in Arkansas for health

[50] US Census 2009; Southern Rural Development Center qtd. in Whitney Clark, "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas," Washington and Lee University, 2011, 6-7.
[51] U.S. Census Bureau, 2010. "State and County Quick Facts: Helena-West Helena, Arkansas." Retrieved April 6, 2012, http://quickfacts.census.gov.
[52] Ibid.

outcomes.[53] In this study, Arkansas counties were ranked according to a summary of health measures, where health factors included health behaviors, including tobacco use, diet and exercise, alcohol use, and unsafe sex; clinical care, both access to care and quality of care; social and economic factors, including education, employment, income, family and social support, and community safety; and finally, physical environment, including environmental quality and built environment.[54] Phillips County was ranked in the bottom five of every category except physical environment, illustrating clearly the notion that health outcomes are negatively affected by more than simply access to health care. Although Phillips County may offer an extreme example, the multifaceted nature of living in poverty can be worsened by the structures of a rural community, and unfortunately many of the standard features of a chronically poor area parallel the social determinants of both health outcomes and alcohol abuse.

Social class is one of the strongest predictors of illness and health, however the avenue through which social class elicits health effects must be thought of as a variable that interacts with a number of spheres in a person's life.[55] As Adler et al. point out, the components of SES, including:

> Income, education, and occupation, shape one's life course and are enmeshed in key domains of life, including (a) the physical environment in which one lives and works and associated exposure to pathogens, carcinogens and other environmental hazards; (b) the social environment and associated vulnerability to interpersonal aggression and violence as well as degree of access to social resources and supports; (c) socialization and experiences that influence psychological development and ongoing mood, affect, and cognition; and (d) health behaviors.[56]

Furthermore, Amartya Sen notes that poverty encompasses more than simply a lack of income and instead involves a capability deficiency that limits a person's ability to function and freedom

---

[53] University of Wisconsin Population Health Institute. "2011 Arkansas," *County Health Rankings 2011,* (Madison, WI: 2011), 5.
[54] Ibid., 2.
[55] Nancy E. Adler et al., "Socioeconomic Status and Health: The Challenge of the Gradient," *American Psychologist* 49 (Jan 1994): 22.
[56] Ibid., 18.

to live a personally valuable life.[57] Capability defines an n-tuple set of functionings from which a person may choose a set of functionings,[58] and its development relies upon a number of American institutions: health care and educational systems, the labor market, the family, and numerous others to take a more active role in diminishing the severe capability deficits among disadvantaged persons.

Unfortunately, it is these very institutions in combination with individual responsibility and the innumerable stresses associated with a life in poverty that perhaps make the poor more susceptible to abusing alcohol. Those in poverty face a vicious cycle, beginning as children, who often face discouragement and inadequate school systems, parents who are stressed and less-involved, and a physical environment that may be filled with violence and increased opportunities for developing anti-social behaviors. Meanwhile, the parents of these children deal with "corrosive suspicions of worthlessness"[59] in the work setting, compounded by insufficient soft-skills, that may keep them out of the workforce all together; a shortage of income; and the responsibility of attempting to raise a child in a dysfunctional environment, all while in the absence of an adequate social support system.

[57] Sen, *The Quality of Life*, 35.
[58] Ibid., 38.

[59]David Shipler, *The Working Poor*. New York: Vintage Books, 2005, 126.

Social Support

A study analyzing data from the Project on Human Development in Chicago Neighborhoods (PHDCN) draws attention to the societal tendency to blame poor health status on one's irresponsible behaviors, instead emphasizing how the constructs of collective efficacy and deteriorated physical environments help explain avenues through which poverty affects health.[60] Collective efficacy measures one's willingness to help out for the common good, and in low-SES communities, one often finds a lack of support at both the individual and community level. Therefore, when combined with deteriorating environments filled with physical disorder, one finds communities overrun with diminished social capital, or quality relationships among residents.[61] Not surprisingly, "communities with lower levels of social capital also have substantially higher mortality."[62] A lack of social supports likely contributes to an individual's tendency to develop unhealthful behaviors such as alcohol use and furthermore abuse, and this in turn may worsen the already damaging state of the physical environment.

As mentioned earlier, a unique characteristic of rural areas is that the close-knit structure makes communal perceptions an important influence on what behaviors are considered tolerable, by both adults and especially developmentally vulnerable teenagers. Given the high levels of diversity across different rural areas, it is quite possible that this feature of rural areas could be protective if it instills positive values. But, much like the negative effect an unsupportive family can have on one's decisions, a dysfunctional, divided rural community, has a greater tendency to foster the formation of behaviors, such as underage alcohol consumption, which prevent functioning and promote detrimental health outcomes. Because of the underlying racial

[60] Cohen et al., "Why is poverty unhealthy? Social and physical mediators," 1639.
[61] Ibid., 1632.
[62] Ibid., 1632.

divisions that still exist in Phillips County there are tremendous disparities in a number of areas for the African-American majority, such as in the public school system or the job sector, which magnify the debilitating impact that poverty and location have on the incidence of alcohol abuse. The social exclusion and lack of self-efficacy that one is likely to face as a result of living in poverty becomes even more difficult to conquer if one lives in a rural area like Phillips County where limited efforts are made to cross racial lines and promote higher functioning.

Increased Accessibility of Alcohol in Impoverished Areas

The physical aspects of neighborhoods in which lower SES persons live are "more likely to have features that directly promote unhealthier lifestyles, such as a higher density of alcohol outlets."[63] A study examining the health effects of neighborhoods' density of alcohol outlets, found that "poor neighborhoods usually have more alcohol outlets (partly because citizens are less able to block them through local politics), and also tend to have more car crashes, violence, and sexually transmitted diseases."[64] After controlling for socioeconomic differences such as income, race, and unemployment, the study also found that neighborhoods with more bars and liquor stores per square mile had higher rates of these problems.[65] Although I do not have statistics documenting the number of alcohol outlets in Phillips County, the pervasive presence of liquor stores and gas stations advertising various alcoholic beverages at reduced prices was evident. Not surprisingly, "the price level of alcoholic beverages influences per capita consumption levels of ethanol, as well as the incidence of alcohol abuse and its health-related

[63] LaVeist and Wallace, Jr. qtd. in Cohen et al., "Why is poverty unhealthy? Social and physical mediators," 1632.
[64] Scribner qtd. in Farley and Cohen, *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World*, 76.
[65] Ibid., 77.

consequences."[66] The abundance of alcohol outlets in Phillips County in addition to the relatively cheap prices also have important implications for why rural areas are often perceived as places where heavy drinking is seen as more acceptable, or even a norm.[67] Moreover, the patterns of drinking encouraged in outlets that sell alcohol, chilled, served in larger quantities than in restaurants, and ready for immediate consumption, are "more likely to result in excessive drinking, public drunkenness, automobile crashes, and physical-altercations that result in injury or death." [68]

Although there is no clear data evidencing a higher concentration of liquor stores in predominantly white or black areas in Phillips County, it is interesting to consider the results of a study in Baltimore, MD, comparing the physical availability of alcohol in white versus black communities. Researchers found that liquor stores were more likely to be located in the black communities, and this conferred a greater number of social problems in these communities, including assaults, rapes, and homicides.[69] The study was conducted in an urban setting, but the implications are instructive given the link between racial disparities and health status in relation to the "social infrastructure,"[70] such as liquor stores that are known to destabilize communities.[71] Clearly, such results are highly applicable, in a rural setting such as Phillips County, AR. Despite the absence of specific statistics, it is logical to conclude that the high concentration of alcohol outlets in Phillips County and diminished cost of alcohol significantly contribute to the entire community's alcohol consumption. But, this has a much greater impact on impoverished

[66] Philip J. Cook and Michael J. Moore, "The Economics of Alcohol Abuse and Alcohol-Control Policies," *Health Affairs*, 21(2002): 130.
[67] Van Gundy, "Substance Abuse in Rural & Small Town America," 24.
[68] Thomas A. La Veist and John M. Wallace, Jr., "Health risk and distribution of liquor stores in African American neighborhood," *Social Science & Medicine* 51(2000): 614.
[69] Ibid., 616.
[70] Ibid., 613.
[71] Ibid.

members of the community, who can sustain drinking habits because of relatively low prices or simply because of the ability to select the price they are willing to pay for alcohol.[72] In comparison to the predominantly white middle class, the marginalized poor community is disproportionately affected by inadequate social structures to combat alcohol abuse or alcohol dependence. Prior accounts of Phillips County note that racial tension has prevented the accumulation of social capital, [73] or "features of social organization, such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit," [74] and the ease of accessibility to alcohol exponentially worsens the likelihood of developing proper social functioning.

Unemployment and Increased Alcohol Consumption

Various studies have come to conflicting conclusions on the relationship between alcohol use and unemployment, and poverty and alcohol abuse, but few studies have attempted to understand how sustained economic hardship combined with unemployment affects alcohol abuse.[75] Khan et al., using a structural modeling equation (SEM) to assess the diverse set of variables contributing to alcohol abuse, measured using three distinct aspects alcohol consumption, alcohol problems, and alcohol dependence, in order to adequately consider the

[72] Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," *Addictive Behaviors* 27 (2002): 419.
[73] Fransico qtd. in Clark, "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas," 15.
[74] Putnam qtd. in Clark, "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas," 16.
[75] Most common finding is that households with increased alcohol consumption have low education and lower income than households with no problem drinkers; Delva & Kameoka qtd. in Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," 406. However, it has also been reported that more affluent people typically drink more than less affluent people and that there is a relationship between low income and high abstention rates; Clark & Midanik qtd. in Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," 406. Hilton qtd. in Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," 406.

confounding factors causing changes in alcohol consumption.[76] The study finds that the direct effect of the environment that an individual is exposed to because of poverty increased alcohol problems, and that prolonged unemployment, as opposed to recent unemployment, was related to an increase in alcohol use.

Based upon these studies, Phillips County, with an estimated 9-15 percent unemployed, and an additional 10% not included in the unemployment estimate because they are not actively seeking unemployment,[77] is at risk for increased alcohol consumption. The changing structure of rural America, as especially well illustrated by Phillips County, has left a number of citizens jobless as a result of decreased demand for low-skilled labor, or working in service industry jobs, such as fast-food restaurants, that offer little potential for job growth and barely provide a livable wage.[78] Undoubtedly, alcohol problems affect even those with jobs and higher income, [79] but the association between unemployment and higher alcohol consumption has a more ominous impact on impoverished persons, who already "have poorer mental health, have lower levels of social functioning and vitality and poorer physical health."[80] [81] In a chronically poor rural area like Phillips County, it is likely that the overarching lack of education and failure of school systems leaves a number of people ill-equipped to both obtain and maintain a job, again resulting in joblessness and a greater chance of consuming alcohol. But, just as unemployment may be a cause of alcohol abuse, it is likely that as discussed in the previous section, the increased likelihood of developing alcohol abuse in a poor rural environment as a result of exposure to

[76] Ibid., 406-407.
[77] Clark, "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas," 10.
[78] Hamilton et al., "Place Matters: Challenges and Opportunities in Four Rural Americas," 6.
[79] Clark and Midanik qtd. in Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," 406.
[80] Khan et al., "A structural equation model of the effect of poverty and unemployment on alcohol abuse," 406.
[81] Clark, "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas," 10.

certain social determinants diminishes one's ability to hold a steady job. Again, the lack of a job results in a whirlwind of negative effects, whether less income or family problems, that likely reinforce the development of alcohol abuse. No matter the route that joblessness may have resulted, it is clear that the increased opportunities for consuming alcohol and thereby decreased health functioning, result from the feeble structures of an impoverished rural area.

Incidence of Lower Age Initial Alcohol Use

The likelihood of developing both alcohol abuse and dependence is strongly tied to the age of initial alcohol abuse.[82] In fact, the 2006 NESARC reports that 45 percent of people who begin drinking before the age of 14 developed alcohol dependence in comparison to only 10 percent of those who abstained until they were 21 or older to start drinking.[83] Despite such stark statistics, underage alcohol is a worsening phenomenon in the United States, with state estimates of underage drinking in the United States ranging from a low of 17.3 percent (Utah) to 40.0 percent (North Dakota), and binge drinking ranging from 13.3 percent (Utah) to 29.5 percent (North Dakota).[84] Alcohol use and binge drinking increases sharply between the ages of 12 and 21,[85] and since first age of use and quantity consumed are strong correlates of AUDs, it is not surprising that young adults[86] had the highest rate of alcohol abuse or dependence.[87] The legal drinking age in the United States is 21, and yet the hazard rates for onsets of both alcohol abuse

[82] Kalaydijan et al., "Sociodemographic predictors of transitions across stages of alcohol use, disorders, and remission in the National Comorbidity Survey Replication," 304.
[83] U.S. Department of Health and Human Services. National Epidemiologic Survey on Alcohol and Related Conditions, *Alcohol Alert*., 3.
[84] Hughes et al., *State Estimates of Substance Abuse from the 2006-2007 National Surveys on Drug Use and Health*, 37- 38.
[85] Ann S. Masten, Vivian B. Faden, Robert A. Zucker, and Linda P. Spear, "A Developmental Perspective on Underage Alcohol Use," *Alcohol Research & Health* 32 (2009): 6.
[86] Young adult considered ages 18-25; Hughes et al., *State Estimates of Substance Abuse from the 2006-2007 National Surveys on Drug Use and Health, 3*.
[87] Ibid., 57.

and dependence peak at age 19. [88] People that begin drinking at an early age are more likely to develop alcohol dependence during their lifetime, usually becoming dependent before age 25.[89] Additionally, this dependence is likely to develop within ten years of initial drinking.[90]

The significant correlation between age of first alcohol use and the later development of alcohol abuse or dependence is of utmost importance in rural areas where statistics have indicated that rural teens use alcohol at higher rates than their urban counterparts.[91] Among adults there seems to be little variation in substance abuse patterns by geographic location. But, at ages 12-13, rural youth are more than twice as likely to abuse alcohol, and between the ages of 16-17 approximately 13 percent qualify for alcohol abuse in comparison to 10 percent of urban teenagers.[92] Although abuse rates appear to be similar by age 20 to 21, the detrimental effects that early alcohol abuse has on child development, and perhaps eventually ill-health outcomes, should not be discounted given the combined characteristics of a chronically poor rural area and the effects of being raised in poverty. The previously discussed social determinants of alcohol abuse in poor rural areas--lack of cohesive social supports, greater accessibility, unemployment, and generally social class--are all reinforced by an early initiation of drinking among rural youth.

The damaging effects that childhood poverty has on development and the increased likelihood of underage alcohol use are amplified in a chronically poor rural area. Various sociodemographic predictors have an important effect on the transition to problematic alcohol abuse, and it is quite possible that environmental, cultural, or societal variables have a greater

---

[88] Hasin et al., Prevalence, Correlates, Disability, and Comorbidity of DSM-IV Alcohol Abuse and Dependence in the Unites States: Results from the National Epidemiologic Survey on Alcohol and Related Health Conditions," 835.
[89] Hingson et al. qtd. in U.S. Department of Health and Human Services. National Epidemiologic Survey on Alcohol and Related Conditions, *Alcohol Alert*. 3.
[90] Ibid.
[91] Van Gundy, "Substance Abuse in Rural & Small Town America," 12.
[92] Ibid., 16.

influence on earlier phases of use. Thus, a promising approach to preventing and reducing underage drinking is to see it as a developmental phenomenon.[93] It is from this perspective that AUDs can be seen as a "problem shaped by the course and contexts of human development and one that also has an array of consequences for development." [94] Development characterizes one's gradual evolution from conception to maturity, which is ultimately shaped by expectations and standards that both parents and society set.[95] The most pronounced changes in one's maturation occur during adolescence, a period marked by tasks such as "achieving academic success, graduating from high school, making and maintaining friendships, and learning and following the rules and laws that govern conduct in society." [96] Successfully cultivating these valuable tasks requires interaction with a variety of contexts, including physical contexts like home and school, social contexts such as family and friends, cultural contexts such as belief systems or expectations, and the media and virtual environment.[97] Unfortunately, the culture of poverty, especially in an area like Phillips County, places impoverished children at a severe disadvantage for developing life skills that promote successful socialization, and puts them at greater risks for following the fates of their parents and falling victim to health hazards such alcohol abuse. Key predictors of teenage alcohol use and later substance abuse are early initiation of substance use and susceptibility to: peer influence, family influence, personality patterns, and early emergence of school problems.[98]

[93] Masten et al., "A Developmental Perspective on Underage Alcohol Use," 3.
[94] Ibid., 3.
[95] Ibid., 4.
[96] Ibid.
[97] Ibid., 5.
[98] Dryfoos as qtd. in Carol N. D'Onofrio, "The Prevention of Alcohol Use by Rural Youth," In *Rural Substance Abuse: State of Knowledge and Issues*, ed. National Institute on Drug Abuse Research Monograph 168, ed. Robertson et al., (Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, 1997), 269.

Accordingly, these very characteristics define rural poverty. In Phillips County, impoverished children attend feeble public schools, racked with racial division, are raised by parents who likely faced similar school issues and now disproportionately face factors tied to alcohol abuse, all the while living in a rural culture where an aura of dysfunction is entrenched. Furthermore, in rural areas there is an increased likelihood that rural youth face boredom, which leads to experimentation with substances.[99] This was evident in Phillips County, where there were few opportunities for outside engagement, such as recreation or other enrichment programs, which instead made the primary activity roaming the streets with nothing to do. According to a number of high school-aged children and adults encountered during my stay in Phillips County, the lack of activities is especially evident in the summer when school is not available to keep youth occupied. Therefore, it is clear that childhood poverty combined with a receding, rural culture, places impoverished children in a number of contexts that make them first, more susceptible to initiating alcohol use, and later, more likely to develop an AUD as a result of being ill-equipped to deal with multifaceted consequences associated with early use.

Consequences of Alcohol Abuse

The burden of a disease is measured in disability-adjusted life years (DALYs), which are comprised of two components, years of life lost due to premature mortality and years of life lost due to disability.[100] Disability, as defined by the International Classification of Functioning, Disability and Health (ICF), "covers a spectrum of various levels of functioning at the body level, person level, and societal level and includes impairments in body functions and structures,

[99] Van Gundy, "Substance Abuse in Rural & Small Town America," 16.
[100] Murray and Lopez qtd. in Samokhvalov et al., "Disability Associated with Alcohol Abuse and Dependence," 2.

and limitations in activity and in participation."[101] Given that AUDs are considered to be the third-most disabling disease category in high-income countries, accounting for 3.9 million years lost to disability,[102] it is of serious concern that the age of onset peaks at such a young age, seemingly indicative of a life destined to dysfunction in a number of settings.

The factors to which alcohol abuse is consistently tied, including younger age of initial use, low education, unemployment, unmarried status, stress and anxiety, community-based perceptions, and many others, are all entrenched in Phillips County. Impoverished children face the stresses of uninvolved parents, single-parents who are struggling to make ends meet, a dysfunctional public school system creating a large achievement gap among predominantly African-American children, few organized programs and activities for outside involvement, and the combination of these makes children ill-equipped for success in the future. The lack of essential support systems, including family, schools, and the community, in conjunction with the ease of access of obtaining alcohol as a minor, encourage many of these children to begin premature alcohol use.

The characteristics of childhood poverty parallel the conditions associated with teenage alcohol use, pointing to ineffective parenting and parental support, perhaps due to an increase in single-parent families,[103] lower levels of academic achievement,[104] problematic behavior such as externalizing problems like aggression and acting out, and internalizing problems like depression

[101] World Health Organization qtd. in Samokhvalov et al., "Disability Associated with Alcohol Abuse and Dependence," 2.
[102] Rehm, "The Risks Associated with Alcohol Use and Alcoholism", 136.
[103] Paul Amato, "The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation," *The Future of Children* 15(2005): 25.
[104] Katherine Magnuson and Elizabeth Votruba-Drzal. "Enduring Influences of Childhood Poverty." *Changing Poverty, Changing Politics.* Ed. Maria Cancian & Sheldon Danziger. (New York: Russell Sage Foundation, 2009): 153.

and anxiety,[105] and detrimental health outcomes, specifically higher rates of chronic conditions, which then extends to poor adulthood health.[106] In the absence of an early onset of alcohol use, the "turned off" feeling among many impoverished children in the academic setting results in low aspirations for further schooling[107] that already places them at a severe disadvantage for later functioning as an adult. Furthermore, it increases the likelihood of developing antisocial behaviors, which are detrimental on both an individual and community level. Hence, it is not surprising that in Phillips County, AR, amidst the immense overlap of the social determinants of deep poverty and the social determinants of alcohol abuse, one also finds Arkansas's lowest ranked county for health outcomes.

Access to care provides some evidence as to why Phillips County residents fare so poorly in attaining proper health, but as mentioned in other parts of this paper, the effects of living in such a broken community are clearly intertwined with its citizens' health. Phillips County was ranked lower in both health behaviors and social and economic factors, than in clinical care category.[108] [109] Although alcohol abuse may not be the single determinant of the negative health outcomes for Phillips County residents, it is likely, just as it is for the entire nation, that alcohol abuse plays a role in both the deeply rooted culture of poverty and health status. Likewise, an impoverished lifestyle and the powerful scope of the structure of rural communities in successfully promoting functioning citizens affects one's tendencies to undertake ill-formed health habits. There are strong associations between alcohol abuse and social problems, which could perhaps explain the overabundance of both teen birth rates and sexually transmitted

[105] Insid., 166
[106] Insid., 167.
[107] Dryfoos qtd. in D'Onofrio, "The Prevention of Alcohol Use by Rural Youth," 269.
[108] Insid.
[109] Specifically, Phillips County had the highest amount of adulthood obesity, the most number of sexually transmitted diseases, and the highest teen birth rate. Hutchison and Blakely, "Substance Abuse—Trends in Rural Areas: A Literature Review," 149.

diseases in Phillips County. Unfortunately, drawing such a correlation between the excessive tumultuous features of Phillips County and an underlying tendency for alcohol abuse is not difficult.

Furthermore, in rural areas as a whole, there is a higher prevalence of driving under the influence, perhaps due to both increased dependence on automobile transportation and a false assumption that the less-populated nature of rural areas makes it less dangerous to drink and drive, and this results in a high number of traffic-related fatalities.[110] In fact, alcohol related accidents comprise a larger proportion of alcohol-related deaths, and once again for kids aged 12-17 the incidence of driving while intoxicated is higher in comparison to urban counterparts.[111] Not surprisingly, according to the U.S. Census Bureau, Arkansas as a whole ranks as one of the top 5 states with the most alcohol related motor vehicle fatalities, and similar to other trends, in Phillips County, motor vehicle crash death rate is much higher, signifying that the number attributable to alcohol is also higher. Therefore, it is apparent that the adverse consequences of alcohol use, whether it is the social harm that may result in a person's inability to function in a variety of settings, the various health concerns associated with consumption and overconsumption of alcohol, or in particular the harms it elicits on persons aside from the drinker himself, make alcohol a critical issue to address to promote overall health.

Diminishing the Role of Social Determinants in Poor Health Outcomes

Unfortunately, many features of rural poverty encourage the dismal health outcomes of impoverished persons that may stem from alcohol abuse. Enhancing accessibility to treatment services in rural areas would benefit addicted individuals and their families in the short run. But

[110] Hutchison and Blakely, "Substance Abuse—Trends in Rural Areas: A Literature Review," 148.
[111] Ibid., 149.

on a broader scale, understanding intermediate contributors to the movement from alcohol use to total alcohol dependence can greatly impact the effectiveness of prevention strategies, as it allows for more precise targeting of certain risk factors. As with solving other health issues, it is important to recognize that successful solutions may vary depending upon societal characteristics. In other words, meeting health needs, or reducing a person's likelihood of abusing alcohol and thereby his chances of suffering from a myriad of other health consequences, will likely require different strategies in rural and urban areas. Because poverty is characterized by grave disparities in a number of realms, including income, education, employment, support systems, in addition to access to health care itself, the ability to improve health outcomes relies on a wider range of societal institutions outside of alcohol rehabilitation facilities or actual clinical treatment, to promote higher functioning among the poor. This would have meaningful effects on not only reducing the damaging incidence of alcohol abuse and dependence, but also on a larger scale improving overall health for impoverished persons and even breaking the viscous poverty cycle that tends to develop given the compounding stresses of a life in poverty.

One of the strongest predictors of the development of alcohol abuse is the age of the onset of use. Research has shown that the earlier the onset of use, the greater the chances of alcohol abuse and dependency are later in adulthood. As this paper has attempted to demonstrate, the effects of poverty further enhance the likelihood of alcohol abuse and dependency. Efforts directed toward preventing and delaying the initiation of alcohol use among youth appears to be a worthwhile goal. But solely generating an awareness about the harms of alcohol use and abuse through programs at schools or local health organizations is hardly an effective way of ensuring that an adolescent, especially one facing the inexorable stresses of

chronic rural poverty, will not succumb to underage alcohol use. Bloch and colleagues note the importance of broad based prevention programs to deal with the diversity of risk factors[112] considering that, as discussed throughout this paper, "problem behaviors are thought to increase with the number of risk factors youth experience." [113] Undoubtedly, addressing the myriad of social determinants of alcohol abuse present in chronically poor rural areas is quite challenging, as is designing adequate prevention programs to attempt to curb underage drinking. Therefore, the most successful way of attacking alcohol abuse is to promote the formation of protective factors and adequate functioning among youth and adolescents, which in turn will also affect other behaviors that may endanger health and well-being. Consequently, research focusing on coping with the unique characteristics of alcohol abuse rural areas, recommends combining alcohol prevention with community development, or devising programs that increase the competencies of individuals, families, and communities.[114]

For impoverished children facing inadequate familial support, it seems that strengthening school systems and ensuring success in school would be an initial adjustment that would be a baseline defense against ill-formed behaviors. However, in addition to schools, it is obvious that children need other opportunities for outside enrichment. In Phillips County, aside from The Boys and Girls Club, which attempts to provide a place to keep children occupied, there are few activities or programs available for building social capital or merely keeping youth engaged. Increasing the availability of recreational opportunities seems like a clear and easily implemented modification that would both improve health and decrease the likelihood of turning to alcohol or other detrimental activities that are likely to occur with idle time. Furthermore,

---

[112] Bloch et al. qtd. in D'Onofrio, "The Prevention of Alcohol Use by Rural Youth," 276.
[113] Numerous sources qtd. in D'Onofrio, "The Prevention of Alcohol Use by Rural Youth," 274-275.
[114] D'Onofrio, "The Prevention of Alcohol Use by Rural Youth," 336.

although this paper bypasses the issues of the lack of treatment options in rural areas, focusing prevention efforts on the early onset of alcohol abuse could potentially minimize the barrier of seeking effective substance abuse treatment. If the development of alcohol abuse is strongly tied to the age of initial use of alcohol, then it is possible that delaying the onset of alcohol use through children's bolstered functioning in society would reduce the need for abuse treatment later on in life.

Ultimately, the efficacy of prevention strategies is greatly challenged by the complex interplay between the structures of a chronically poor area, and the combined social determinants of poverty and alcohol abuse. After thoroughly examining the overlapping characteristics of an impoverished lifestyle and the predictors of alcohol abuse, the need for promoting higher functioning among the poor is evident in the pursuit of improving impoverished health outcomes. One's health is directly worsened by the stresses of weathering the ingrained obstacles of poverty, but perhaps of equal importance, are the combined indirect effects of a number of contexts that promote the development of ill-formed health behaviors and habits. The highly stigmatized notion that alcohol abuse is solely a matter of personal responsibility quickly becomes obsolete when viewed in conjunction with the atmosphere of chronic rural poverty. Analyzing alcohol abuse and its role in health outcomes is one of countless other health behaviors illustrating the cyclical nature of how poverty affects health and concurrently health affects poverty. Altering the richly intertwined, harmful relationship between health and poverty necessitates the development of solutions that lie beyond the scope of merely increasing access to health care, and instead draw upon the broad number of contexts that elicit health outcomes.

Works Cited

Adler, Nancy E., Thomas Boyce, Margaret A. Chesney, Sheldon Cohen, Susan Folkman, Robert L. Kahn, and S. Leonard Syme. "Socioeconomic Status and Health: The Challenge of the Gradient." *American Psychologist* 49 (Jan 1994): 15-24.

Amato, Paul. "The Impact of Family Formation Change on the Cognitive, Social, and Emotional Well-Being of the Next Generation," *The Future of Children* 15.2, Fall 2005. 75-96.

Becker, Howard. "Alcohol Dependence, Withdrawal, and Relapse," National Institute on Alcohol Abuse and Alcoholism. Accessed March 16, 2012. http://pubs.niaaa.nih.gov/publications/arh314/348-361.htm.

Clark, Whitney. "Do 'Delta Dreams' Come True? Community and Individual Development in Phillips County, Arkansas." Washington and Lee University, 2011.

Cohen, Deborah A., Farley, Thomas A., and Mason, Karen. "Why is poverty unhealthy? Social and physical mediators," *Social Science and Medicine* 57 (2003): 1631-1641.

Conger, Rand D. "The Special Nature of Rural America," In *Rural Substance Abuse: State of Knowledge and Issues*. ed. National Institute on Drug Abuse Research Monograph 168, edited by Robertson et al., 37-52. Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, 1997.

Cook, Philip J. and Moore, Michael J. "The Economics of Alcohol Abuse and Alcohol-Control Policies." *Health Affairs* 21(2002): 120-133.

Daniels, Norman. *Just Health: Meeting Health Needs Fairly*. New York: Cambridge University Press, 2008.

Daniels, Norman, Kennedy, Bruce, and Kawachi, Ichiro. "Health and Inequality, or, Why Justice Is Good for Our Health." In *Public Health, Ethics, and Equity*, edited by Sudhir Anand, Fabienne Peter, and Amartya Sen, 63-91. New York: Oxford University Press, 2004.

D'Onofrio, Carol N. "The Prevention of Alcohol Use by Rural Youth." In *Rural Substance Abuse: State of Knowledge and Issues.* edition National Institute on Drug Abuse Research Monograph 168, edited by Robertson et al., 250- 363. Rockville, MD: U.S. Department of Health and Human Services, National Institutes of Health, 1997.

Farley, Tom and Cohen, Debra A. *Prescription for a Healthy Nation: A New Approach to Improving Our Lives by Fixing Our Everyday World.* Boston: Beacon Press, 2005.

Francisco, Samara. "The Economic Necessity of Social Capital: A Case Study in Phillips County, Arkansas." Washington and Lee University, 2010.

Gilbertson, Rebecca, Prather, Robert and Nixon, Sara Jo. "The Role of Selected Factors in the Development and Consequences of Alcohol Dependence." National Institute on Alcohol Abuse and Alcoholism. Accessed March 16, 2012. http://pubs.niaaa.nih.gov/publications/arh314/389-399.htm.

Grant, Bridget F. "Prevalence and Correlates of Alcohol Use and DSM-IV Alcohol Dependence in the United States: Results of the National Longitudinal Alcohol Epidemiologic Survey." *Journal of Studies on Alcohol* 58 (1997): 464-473.

Hamilton, Lawrence C., Hamilton, Leslie R. Duncan, Cynthia M. "Place Matters: Challenges and Opportunities in Four Rural Americas." *A Carsey Institute Report on Rural America*, 1 (2008): 1-33.

Hasin, Deborah S., Stinson, Frederick S., Ogburn, Elizabeth and Grant, Bridget F. "Prevalence, Correlates, Disability, and Comorbidity of DSM-IV Alcohol Abuse and Dependence in the Unites States: Results from the National Epidemiologic Survey on Alcohol and Related Health Conditions." *Archives of General Psychiatry* 64 (2007): 830-842.

Hughes, Arthur, Sathe, Neeraja and Spagnola, Kathy. *State Estimates of Substance Abuse from the 2006-2007 National Surveys on Drug Use and Health.* Rockville, MD: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, 2009.

Hutchison, Linnae and Blakely, Craig. "Substance Abuse—Trends in Rural Areas: A Literature Review." *Rural Healthy People 2010: A Companion Document to Healthy People 2010,* Volume 2.College Station Texas: The Texas A&M University System Health Science Center, School of Rural Public Health, Southwest Rural Health Research Center, 2003. 145-154.

Kalaydijan et al., "Sociodemographic predictors of transitions across stages of alcohol use, disorders, and remission in the National Comorbidity Survey Replication." *Comprehensive Psychiatry* 50 (2009): 299-306.

Khan, Shaila, Murray, Robert P., and Barnes, Gordon E. "A structural equation model of the effect of poverty and unemployment on alcohol abuse." *Addictive Behaviors* 27 (2002): 405-423.

La Veist, Thomas A. and Wallace Jr., John M. Jr. "Health risk and distribution of liquor stores in African American neighborhood." *Social Science & Medicine* 51(2000): 613-617.

Magnuson, Katherine and Elizabeth Votruba-Drzal. "Enduring Influences of Childhood Poverty." *Changing Poverty, Changing Politics.* Ed. Maria Cancian & Sheldon Danziger. 153-179. New York: Russell Sage Foundation, 2009.

Masten, Ann S., Faden, Vivian B., Zucker, Robert A., and Spear, Linda P. "A Developmental Perspective on Underage Alcohol Use." *Alcohol Research & Health* 32 (2009): 3-15.

Peter, Fabiene. "Health Equity and Social Justice." In *Public Health, Ethics, and Equity*, edited by Sudhir Anand, Fabienne Peter, and Amartya Sen, 93-106. New York: Oxford University Press, 2004.

Rehm, Jürgen. "The Risks Associated with Alcohol Use and Alcoholism." *Alcohol Research & Health*, 34 (2011): 135-143.

Samokhvalov et al., "Disability Associated with Alcohol Abuse and Dependence." *Alcohol Clinical and Experimental Research* 34 (2011): 1-14.

Shipler, David. *The Working Poor.* New York: Vintage Books, 2005.

University of Wisconsin Population Health Institute. "2011 Arkansas," *County Health Rankings 2011.* Madison, WI: University of Wisconsin-Madison, 2011.

U.S. Census Bureau. 2010. "State and County Quick Facts: Helena-West Helena, Arkansas." Retrieved April 6, 2012. http://quickfacts.census.gov.

U.S. Department of Health and Human Services. National Epidemiologic Survey on Alcohol and Related Conditions, *Alcohol Alert*. U.S. Department of Health and Human Services, National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism, Oct. 2006.

U.S. Department of Health and Human Services. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2010. *Vital & Health Statistics.* Hyattsville, MD: U.S. Department of Health and Human Services, Centers for Disease Control, National Center for Health Statistics, 2012.

Van Gundy, Karen. "Substance Abuse in Rural & Small Town America." *Carsey Institute Reports on Rural America* 1 (2006): 1-38.

World Health Organization. "Social determinants of health: the solid facts." 2nd edition, edited by Richard Wilkinson and Michael Marmot. Denmark: World Health Organization, 2003.