Health Risk Profile of Rhode Island's Working Poor

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Rhode Island (RI) has been the slowest state to rebound from the 2008 economic recession. As of December 2012, its unemployment rate was 9.9%, the highest in the nation.[1] Many who are reentering the work force are doing so in lower-wage jobs. Often these jobs don't offer health benefits or, if so, they may be unaffordable to those on limited budgets.

Several recent reports[2,3] have provided demographic characteristics of a vulnerable population termed the "working poor," but few have reported on the health status of this special group. This report compares health data on the working poor and working non-poor. Measures of health status, health risks, chronic conditions, and access to care are examined.

METHODS

The Behavioral Risk Factor Surveillance System (BRFSS) is a national telephone survey of randomly selected adults (ages 18 and older). Included in the survey are questions on health risk behaviors, health insurance coverage, access to care, health screenings, and chronic conditions. All 50 states conduct the BRFSS with funding and technical support from the Centers for Disease Control and Prevention.[4] Rhode Island has participated in the BRFSS since 1984; a professional survey firm conducts the annual survey. Beginning in 2011, BRFSS data changed its weighting methodology (raking) and added cell phone respondents to its traditional landline sample. Results for Rhode Island are reported annually.[5] Two years of survey data (2011 and 2012) were combined to yield responses of sufficient size to be statistically valid.

The working poor are defined as adults who are employed (not self-employed), with household incomes less than $25,000 per annum; working non-poor are employed with household incomes greater than or equal to $25,000 per annum. Demographic characteristics, the prevalence of several health risks, health status, and measures of health care access were compared (See **Table 1** for definitions). The presence of self-reported conditions was assessed. Self-reported conditions included history of diabetes, current asthma, being diagnosed with arthritis, history of cardiovascular disease (ever had a heart attack, stroke or told you had coronary heart disease) and current depression. Current depression was derived by combining responses to 2 mental health questions according to the Patient Health Questionnaire Depression Screener guidelines, using the CDC provided Depression and Help seeking module.

To account for the complex sampling design, data were analyzed using SAS version 9.1.[6]

RESULTS

The total unweighted sample size for 2011 was 6,533 respondents and there were 5,480 respondents in 2012. Between 2011 and 2012, 6.5% of RI adults, approximately 54,000 people, were considered working poor. More women than men were working poor (55.5% vs. 44.5%) and young workers (age 18-24) are more likely to be poor (25.1% versus 6.4%).

Working poor adults are disproportionately racial/ethnic minorities; they are more likely to be Black (9.6% versus 3.8%) or Hispanic (31.8% versus 6.3%). The working poor are less likely to hold high school and college degrees. Only 9.8% of the working poor hold college degrees, compared to 41.4% of all non-poor workers, and working poor were more likely to be unmarried (**Table 2**).

Among working poor adults, a greater proportion reported overall fair or poor health (16.5% vs. 5.7%), and poor mental health in the prior month (15.5% vs.7.8%) compared

Table 1. Definitions of health risk, and access to care indicators

Indicator	Definition
Poor or Fair Health	Self-rated general health is fair or poor
Physically unhealthy	14+ days poor physical health (past 30 days)
Mentally unhealthy	14+ days poor mental health (past 30 days)
Current Smoker	Smokes cigarettes regularly or occasionally
Sedentary Lifestyle	No leisure time physical activity in past month
Binge drinking	5+ drinks on at least one occasion in past month
Obese	Body mass index (BMI) $\geq$ 30.0 kg/m^2
Not always wearing a seatbelt	Does not always use a seatbelt while driving or riding in a car
Uninsured	Has no health care coverage (ages 18-64 years only)
No annual checkup	Did not visit a doctor for a routine check-up in past year
No regular provider	Did not have anyone that they thought of as their personal doctor or health care provider
No medical care due to cost	Needed to see a doctor but could not due to cost in past 12 mos.

to working non-poor adults. Working poor Rhode Islanders were also more likely to participate in certain risky behaviors than other working non-poor adults. For example, working poor adults were 1.7 times more likely to be current smokers (26.6% vs. 15.5%) and physically inactive (28.7% vs. 17.2%) than working non-poor adults. The two groups were comparable with respect to the prevalence of binge drinking (working poor was slightly lower), being obese, and always wearing a seatbelt (**Figure 1**).

No disparities existed with respect to the prevalence of chronic conditions; working poor adults had similar prevalence rates to working non-poor for diabetes, asthma, arthritis, and cardiovascular disease. However working poor adults were twice as likely to report being currently depressed compared to working non-poor adults (Table 3).

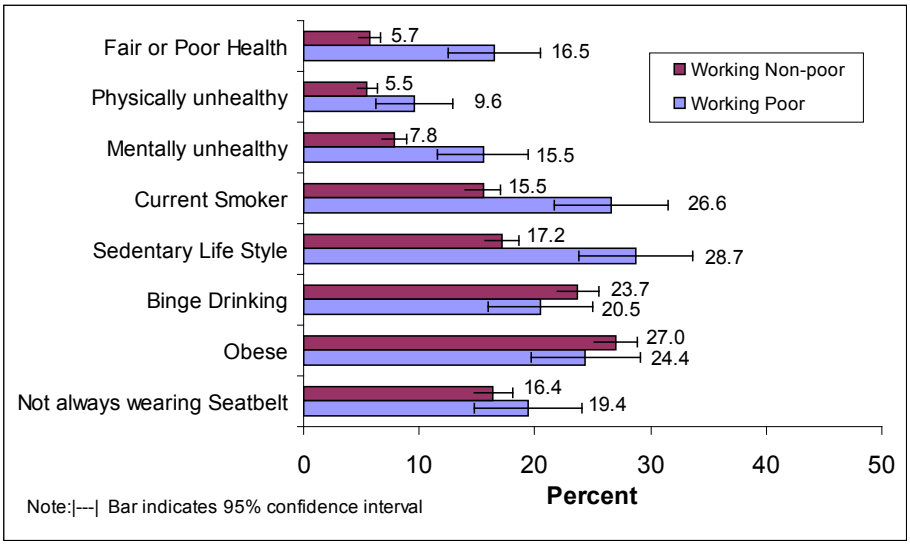
Of all measures examined, the most notable differences were related to access to care and health care coverage. More than four in ten (42.6%) poor adults were without health insurance, a rate more than seven times the rate for those who were working non-poor (6.5%). Over one third of the working poor (36%) did not have a routine check-up in the past year compared to nearly one in four of the working non-poor (23.7%). Three in ten working poor adults did not have a personal doctor in contrast to one in ten working non-poor adults. Similarly, almost one third of working poor adults (32%) reported cost as a barrier to access health care services, a rate that was four times higher that of the working non-poor (8.1%) (**Figure 2**).

Table 2. Demographic Characteristics among Working Poor and Working non-Poor, Rhode Island adults, 2011-2012

Demographic characteristics	Weighted percent Working poor	95% CI [a]	Weighted percent Working non-poor	95% CI [a]
Age group (years)				
18-24	25.1	19.7-30.5	6.4	5.0-7.8
25-44	46.7	41.2-52.2	43.5	41.5-45.5
45-64	24.1	20.2-28.1	45.8	43.9-47.7
65+	4.0	2.3-5.6	4.4	3.8-4.9
Gender				
Male	44.5	38.9-50.0	52.5	50.5-54.4
Female	55.5	50.0-61.1	47.5	45.6-49.5
Race/Ethnicity				
White Non-Hispanic	52.2	46.8-57.6	85.3	83.7-86.8
Black, Non-Hispanic	9.6	6.3-12.9	3.8	2.9-4.6
Latino/Hispanic	31.8	26.6-37.0	6.3	5.2-7.4
Other	6.3†	3.7-9.0	4.7	3.7-5.7
Education				
High School or less	62.5	57.4-67.7	27.5	25.6-29.4
Some college	27.7	23.1-32.4	31.0	29.1-33.0
College graduate	9.7	7.1-12.3	41.4	39.6-43.3
Marital Status				
Married	31.5	26.4-36.6	69.1	67.3-71.0
Unmarried	68.5	63.4-73.7	30.9	29.9-32.8

[a] 95% confidence interval (CI) reflects the "stability" of an estimate of prevalence. If the 95% CI do not overlap between working poor and working non-poor, there is a statistically significant difference between the two groups.
† Estimates may be unreliable. Cell sizes are less than 50 and estimates should be interpreted with caution.

Figure 1. Differences in health status and health risks for Working Rhode Island adults, 2011-2012



DISCUSSION

Rhode Island's working poor were more likely to be female, minority, younger, lack higher education and be unmarried. They were also more likely to be smokers and physically inactive. Rates for diabetes, asthma, arthritis and cardiovascular disease were similar. A recent study that compared uninsured low-income adults with persons enrolled in Medicaid also found lower prevalence for chronic conditions.[7] This finding could be a result of a lack of access to care to be screened for these conditions, or the fact that the Rhode Island working poor is young, so many chronic conditions did not have time to manifest.

Mental health issues and depression were significantly more prevalent among Rhode Island's working poor.

Simmons et al study[8] showed that job insecurity among working poor adults was significantly associated with current depression. Low-wage jobs tend to be hourly, seasonal, or contract work, which provide very little job security. Compared to the working non-poor, working poor adults are less likely to be offered health insurance and paid sick time, which may result in job and financial insecurity, and stress. Current depression has been associated with cigarette smoking, sleep problems, chronic fatigue, absenteeism, and work productivity.[8] Our findings have the potential to inform policies aimed at improving the well-being of the working poor in Rhode Island. Employers of working poor adults may consider interventions to increase access to depression treatment.

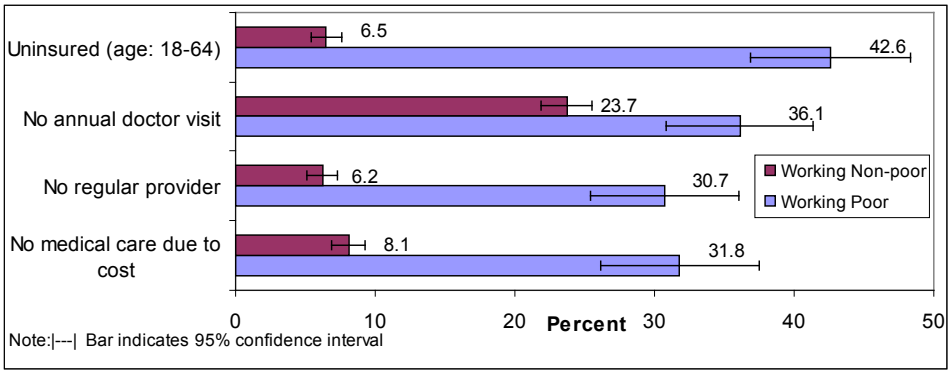
Most concerning was the compromised access to healthcare by the working poor (over 30% had no provider and did without regular check-ups). A regular provider is critical to maintaining one's health through detection and control of potentially serious health problems. It is difficult to acquire a regular source of ongoing healthcare without insurance, especially when out-of-pocket costs are a factor.

Table 3. Prevalence of chronic conditions among Working Poor and Working non-Poor, Rhode Island adults, 2011-2012

Prevalence of chronic conditions	Percent-Working poor	95% CI[a]	Percent-Working non-poor	95% CI[a]
Ever had diabetes	5.2 †	3.0-7.4	5.9	5.0-6.8
Currently has asthma[1]	10.3	7.3-13.3	9.7	8.6-10.8
Diagnosed with arthritis	15.1	11.7-18.5	17.8	16.5-19.2
Any cardiovascular disease (CVD)[2]	3.0 †	1.6-4.5	3.5	2.9-4.1
Current depression[3]	11.3	7.6-14.9	5.8	4.7-6.9

[a] 95% confidence interval (CI) reflects the "stability" of an estimate of prevalence. If the 95% CI do not overlap between working poor and working non-poor, there is a statistically significant difference between the two groups.
† Estimates may be unreliable. Cell sizes are less than 50 and estimates should be interpreted with caution.
[1] Ever told by doctor has asthma and has asthma now.
[2] Reported ever having a heart attack or stroke or being diagnosed with coronary heart disease or angina.
[3] Calculated depression score is based on 2 questions, severity score ≥3.

Figure 2. Differences in health care access for Rhode Island adults, 2011-2012



Access to care is expectedly compromised when one does not have healthcare insurance. Implementation of the Affordable Care Act and Medicaid expansion should alleviate this situation as coverage (subsidized or otherwise) is extended to more individuals. Having access to services like preventive care, wellness services and chronic-disease management could have significant consequences on the health status of struggling low-income employed adults.

There are some limitations with this study. Up until 2011, the BRFSS was only administered via landlines. During 2003 to 2009, the proportion of U.S. adults who lived in cell phone-only households increased by more than 700%, and the trend is continuing.[9,10] Younger adults are more likely to live in a cell phone-only household. Because of differences in the characteristics of people living in households with and without landlines, all telephone surveys in the United States, including the BRFSS, have had to adapt their methods to this relentless increase in cell phone-only households.[9,11] Adding cell phone users to the sample and adjusting for more socio-demographic factors through a new weighting methodology[12] helps Rhode Island better account for the under-representation of males, adults with less formal education, lower-income households, young adults, and racial/ethnic minorities. Even with the addition of cell phone users, there is a possibility that people without any phone service cannot be reached and are not represented. A second consideration is that the BRFSS relies on self-reported data, and the potential for bias must be kept in mind for behaviors that are socially unacceptable. Survey response rates may also affect the potential for bias in the data. The literature shows that most questions on the core CDC BRFSS instrument are reliable and valid.[13] The BRFSS is a cross-sectional survey. Our findings cannot infer causal conclusions. All that can be determined is the likelihood of an association between health-risk behaviors, health conditions, and health access, among working poor versus working non-poor Rhode Island adults. A fifth consideration is that the BRFSS is a telephone survey and the working poor may be under-represented due to difficulties with a busy schedule. Another consideration is that current depression was calculated based on only two questions, therefore the prevalence of current depression among working poor adults may not be an accurate reflection and might be under-represented in this population.

Despite these limitations, the BRFSS is the only available source of timely, accurate data on health-related behaviors.

Our results identify a vulnerable population that has a significant need for routine access to health care, and would benefit from increased diagnosis and treatment for mental health issues. Ongoing data collection and dissemination using the BRFSS will help in monitoring access to care, health status, and health risks in efforts to improve the health and well-being of Rhode Island's working poor.

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