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California Center for Rural Policy

Rural Poverty and its Health Impacts: A Look at Poverty in the Redwood Coast Region

By The California Center for Rural Policy at Humboldt State University

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Executive Summary

Good planning and policy decisions require accurate and accessible data. Local activists, nonprofits, county agencies and policy makers need good data for grassroots advocacy, planning, policy and action to improve community health. For a variety of reasons, rural areas are often lacking the necessary data for making informed policy and planning decisions. The California Center for Rural Policy (CCRP) at Humboldt State University was created to address the lack of meaningful rural data through conducting research that is responsive to community interest and need.

The Rural Health Information Survey (RHIS) was conducted by CCRP in the fall of 2006. The purpose of the survey was to assess health disparities, access and utilization of health care, and other determinants of health among residents in Del Norte, Humboldt, Trinity and Mendocino counties (Redwood Coast Region). The goal of the survey is to provide useful information for planning and policy development aimed at improving health in the region. The survey was designed to explore how poverty and place impact health. This is the largest study of this type that has ever been conducted in this rural region of California.

This report provides a profile of rural poverty and its health impacts. It contains a review of the literature exploring the relationships between poverty and health with a focus on rural poverty and child poverty. It also contains an analysis of U.S. Census data showing the geographic distribution of poverty in the Redwood Coast Region and variation in poverty by place, age, family structure and race/ethnicity. Results from RHIS are presented to show the association between poverty and numerous health indicators. The report concludes with a discussion about implications for programs, policy and research based on dialogue with rural community leaders.

The main findings presented in this report by topic are:

Poverty in the Redwood Coast Region: Census Data

- According to the U.S. Census, 2000, poverty* rates are higher in the Redwood Coast Region than in the U.S. and California.
- The groups with the highest poverty rates in the Redwood Coast Region are children (particularly children under age 5), families headed by single women with children and the Black/African American population.
- Compared to California and the United States, the Redwood Coast Region has higher poverty rates for every race/ethnicity.

The Rural Health Information Survey: Main Findings

Household Income- Enough to Meet Basic Needs?

- Nearly 40% of respondents living in poverty reported their household income was not enough to meet basic needs and an additional 36.3% reported it was barely enough to meet basic needs.

Perceptions of General Health

- Respondents living in poverty were 4.6 times more likely to report poor or fair health compared to respondents living at or above 300% poverty
- Respondents living at or above 300% poverty were 2 times more likely to report very good or excellent health compared to respondents living in poverty.

* The Federal Poverty Level (FPL) varies by household size. For a family of four (two adults, two children) the 2006 Federal Poverty Level (100% FPL) was $20,444, 200% FPL was $40,888 and 300% FPL was $61,332

Perceptions of Mental Health

- Respondents living in poverty were 4.1 times more likely to report feeling sad or depressed most or all of the time compared to respondents living at or above 300% poverty

Hunger/Very Low Food Security

- Respondents living in poverty were 26.5 times as likely to experience very low food security (hunger due to not being able to afford enough food) as those living at or above 300% poverty.
- Respondents with children living in their home were 1.6 times more likely to report very low food security than respondents who did not have children living in their home.
- Among the respondents living in poverty with children under the age of 18 in the household, 32.8% reported very low food security,

Access to Health Care for Adults

- 39.8% for respondents living in the poverty reported they were unable to get needed health care in the year prior to the survey (5.2 times higher than respondents living at or above 300% poverty).
- Issues related to insurance were the most frequently mentioned reasons respondents were unable to get needed health care in the year prior to the survey.

Access to Health Care for Children

- 20.5% of the low-income* respondents reported they were unable to get their children needed health care in the year prior to the survey (4.1 times higher than the non low-income respondents).
- Issues related to insurance were the most frequently mentioned reasons respondents were unable to get their children needed health care in the year prior to the survey.

Insurance

- 34.8% of the low-income respondents (age 18 to 64) were uninsured compared to 10.8% of the non low-income respondents.
- The primary reason reported for not having insurance was cost followed by employment issues.

Use of the Emergency Department

- 29.5% of the low-income respondents reported using an emergency department for health care in the year prior to the survey compared to 19.2% of the non low-income respondents.

Physical Activity

- 64.6% of the low-income respondents reported meeting the recommendations for moderate or vigorous activity, which is significantly higher than the non low-income respondents who reported meeting these recommendations (58.9%).

*Low-income refers to income levels that are below 200% of the federal poverty level. In 2006, a family of four (two adults, two children) was considered to be low-income if the household income was below $40,888. Low-income includes those in poverty plus people who have income above poverty, but less than 2 times their poverty threshold.

Cigarettes & Alcohol

- 21.6% of the low-income respondents reported smoking cigarettes on a daily basis, which is significantly higher than the non low-income respondents who reported daily cigarette smoking (8.6%).
- There was no difference between low-income respondents and non low-income respondents who reported drinking alcohol (4 or more alcoholic beverages on one occasion) daily or a few times a week.

Tetanus & Flu Vaccination

- Low-income respondents were significantly less likely to have received a tetanus booster in the past 10 years compared to non low-income respondents.
- Low-income respondents were significantly less likely to have received a flu vaccination in the past year compared to non low-income respondents.

Routine Check-up

- Low-income respondents were significantly less likely to have had a routine check-up in the past 4 years compared to non low-income respondents.

Oral Health

- Low-income respondents were significantly less likely to have had their teeth cleaned in the past 2 years compared to non low-income respondents.

Screening for Cancer

- Low-income respondents were significantly less likely than non low-income respondents to have received screenings for cervical cancer, breast cancer, prostate cancer and colorectal cancer.

Screening for Diabetes, High Blood Pressure & Cholesterol Disorders

- Low-income respondents were significantly less likely than non low-income respondents to have received screenings for diabetes, high blood pressure and cholesterol disorders.

Transportation Problems

- 38.3% of the respondents living in poverty reported transportation was a problem meeting their health needs or those of their family (5.2 times higher than respondents living at or above 300% poverty).
- 11.1% of the respondents living in poverty reported no vehicle in the household (11.1 times higher than respondents living at or above 300% poverty).

Household Conditions

- 14.2% of the respondents living in poverty reported no phone in their home
- 55.4% of the respondents living in poverty reported no Internet access in their home.
- 45.1% of the respondents living in poverty reported no computer in their home.
- Low-income respondents were significantly more likely to report mold in their home compared to non low-income respondents.
- Respondents living in poverty were significantly more likely to report no source of electricity or power in their home compared to respondents not living in poverty.

Implications for Programs, Policy and Research

The findings of this study are intended to be a catalyst for change. Designing effective policies to address identified problems requires a multi-pronged community-based approach. CCRP has been presenting the findings from the survey to community leaders, policy makers and community organizations. The presentations are followed by a discussion about potential solutions to the identified problems.

This report contains a summary of these discussions and policy recommendations based on a combination of the data presented in this report and the experiences and expertise of rural communities. The recommendations are:

1) **Ensure all children have coverage and a medical and dental home.**

2) **Increase Broadband accessibility in rural California.**

3) **Increase enrollment of eligible people into existing programs .**

4) **Allow rural hospitals to operate medical practices.**

5) **Improve Medi-Cal payment.**

6) **Take steps to eliminate poverty.**

Introduction

Good planning and policy decisions require accurate and accessible data. Local activists, nonprofits, county agencies and policy makers need good data for grassroots advocacy, planning, policy and action to improve community health. For a variety of reasons, rural areas are often lacking the necessary data for making informed policy and planning decisions. The California Center for Rural Policy (CCRP) at Humboldt State University was created to address the lack of meaningful rural data through conducting research that is responsive to community interest and need.

The Rural Health Information Survey (RHIS) was conducted by CCRP in the fall of 2006. The purpose of the survey was to assess health disparities, access and utilization of health care, and other determinants of health among residents in Del Norte, Humboldt, Trinity and Mendocino counties (Redwood Coast Region). The goal of the survey is to provide useful information for planning and policy development aimed at improving health in the region. The survey was designed to explore how poverty and place impact health in this rural region of California. This is the largest study of this type that has ever been conducted in this rural region of California.

This report provides a profile of rural poverty and its health impacts. It contains a review of the literature exploring the relationships between poverty and health with a focus on rural poverty and child poverty. It also contains an analysis of U.S. Census data showing the geographic distribution of poverty in the Redwood Coast Region and variation in poverty by place, age, family structure and race/ethnicity. Results from the Rural Health Information Survey are presented to show the association between poverty and numerous health indicators. The report concludes with a discussion about implications for programs, policy and research based on dialogue with rural community leaders.

Poverty and Low-Income Defined

Poverty

Poverty rates provide an important measure of economic well-being for individuals and communities. The poverty thresholds are set annually by the federal government. These thresholds vary depending on family size and composition. A family living below the threshold is considered to be living in poverty ("Below 100% of poverty" is the same as "in poverty").

In 2000, a family of four (two adults, two children) was considered to be living in poverty if the household income was below $17,463. In 2006, the same family of four (two adults, two children) was considered to be living in poverty if the household income was below $20,444.[1]

There is debate about the appropriate measurement of poverty. The federal government's official definition of poverty was developed in 1964 and was based on the cost of minimal nutritional needs of children and adults. This dollar amount was multiplied by three to cover the estimated cost of nonfood items. The multiplier of three was based on an average family income relative to food expenditure in 1955. The poverty thresholds are adjusted for inflation each year, but they are not adjusted for geographic differences in the cost of living. Furthermore, the poverty thresholds do not account for the different needs of working families (i.e. child care), tax credits and nonmonetary benefits.[2,3]

Low-Income

Income levels that are below 200% of the federal poverty level are considered low-income. In 2006, a family of four (two adults, two children) was considered to be low-income if the household income was below $40,888. Low-income includes those in poverty plus people who have income above poverty, but less than 2 times their poverty threshold.[1]

Poverty and Health: A Review of the Literature

Poverty and low socioeconomic status (often defined by income level, employment status, and highest level of education) have increasingly been shown to be associated with poor health. It has been suggested that the relationship between poverty and health is on a gradient; that is, people living at or below the poverty level are suffering from the poorest health, and as one's socioeconomic status (SES) improves their health also improves.[4]

Poverty has been associated with a variety of adverse health outcomes including, but not limited to, heart disease, occupation related health ailments, disability, and psychological distress.[5,6,7,8] Living in poverty has also been associated with increased risk for dental disease.[9]

Individuals living in poverty may be at a higher risk for mortality from heart disease than their non-poverty counterparts. Researchers investigated the relationship between social class (working poor, lower middle class, middle class, and upper middle class) and heart disease (HD) mortality. They found that the HD mortality rate was nearly 2 times higher for the lower middle class than for the middle and upper middle class, and the HD mortality rate was over 4 times higher among the working poor than all other social classes. In addition, after controlling for social class, there were no significant differences in HD mortality rates between white and African American populations, suggesting that social class was a stronger predictor of HD mortality than ethnicity.[7] More recent evidence suggests that the physiological stress associated with living in low income/ low social class households may be one process through which socioeconomic status attributes to cardiovascular disease.[10]

Research has also found that individuals living in poverty may be at increased risk for exposure to unhealthy environmental conditions. Relationships have been demonstrated between low SES and increased exposure to environmental risk factors such as poor water quality, ambient and indoor air pollutants, residential crowding, poor housing quality, fewer and poorer educational facilities, unhealthy work environments and neighborhood conditions, and hazardous waste or other toxins.[5] Exposure to any of these environmental risk factors may contribute to adverse health outcomes.

In addition to the physical ailments associated with poverty, studies suggest that poverty may also affect one's emotional and mental well being. For example, one study found that individuals residing in a neighborhood characterized by high levels of poverty were more likely to report lower self-esteem than individuals not living in neighborhoods with poverty.[8] Others have suggested that it is the social and emotional outcomes associated with poverty (i.e. exposure to environmental risk factors, negative group influences, and social role devaluation) that may lead to chronic health problems and disability.[6]

Poverty and Children's Health: A Review of the Literature

Children tend to be at higher risk for poverty related poor health outcomes than adults, with preschool and early school age children experiencing the highest risk.[11] Comprehensive reviews of the effects of poverty on the health and development of children provide evidence for a relationship between poverty and low birth weight, increased neonatal and postnatal mortality rates, higher risk of accidental injury and physical abuse or neglect, increased risk for asthma, lower cognitive development, more behavioral problems and elevated blood lead levels.[11,12]

Family income has been shown to be associated with both the physical and psychological development of children, specifically cognitive functioning and behavioral competence.[13] Stunted growth, often an outcome of malnutrition or other nutrition deficiencies and disorders, has also been found among children living in poverty.[14]

Quality of healthcare is also a problem for children living in poverty. In a study comparing well child care (including screening and immunizations) among children who live in poverty and children who do not live in poverty, it was found that children living in poverty were less likely than their non-poverty counterparts to visit a healthcare provider for a well child visit or for an acute illness. The children living in poverty were also less likely to see the same healthcare provider on multiple visits, or to receive immunizations at their primary healthcare facility.[15]

Oral health care for children living in poverty is also a problem. The US Department of Health and Human Services has reported that children from poor families are twice as likely to have dental caries and are less likely to receive treatment for this disease than children not living in poor families.[16] Dental caries (a common tooth rot) is a disease often resulting from poor diet, poor oral hygiene, and inappropriate food given to infants; all factors associated with poverty.

Evidence for the long term health effects of poverty are beginning to emerge. For example, recent research has shown that the more time spent living in poverty as a child is related to higher stress dysregulation and cardiovascular disease in adulthood.[17] This outcome is likely a result of the chronic stress often experienced by children living poverty.

Of increasing concern is the fact that a majority of children living in poverty are also living in rural areas.[18] Given the growing body of evidence showing that rural residents experience more health disparities than urban residents, it becomes clear that the combination of being poor and rural puts both children and adults at an increased risk for poor health.

Rural Health Disparities: A Review of the Literature

Studies have shown that rural populations tend to experience health disparities when compared to their urban or suburban counterparts.[19,20,21] The Health United States 2001, Urban and Rural Health Chartbook, shows that rural residents smoke more, exercise less, have less nutritional diets, and are more likely to be obese than suburban residents.[19] Other comparative studies have found that residents of rural areas differ from their urban counterparts in several ways: they report poor to fair health; they are more likely to have chronic health conditions, yet have less visits to healthcare providers per year; and they are more likely to die from heart disease.[20,22]

Other studies have found a higher prevalence of asthma, arthritis, diabetes, heart disease, lung disease, stroke, and diseases due to agriculture toxins among rural residents with low income than among rural residents with higher income. In addition, a higher prevalence of arthritis, asthma, cancer, diabetes, heart disease, lung disease and stroke were found among unemployed rural residents compared to employed rural residents.[23]

There are many complex factors that can impact health for people who live in rural areas. Studies have shown that poverty is more prevalent in rural areas than in more populated areas.[22,24] Given the established relationship between poverty and poor health, and the fact that poverty persists more in rural areas than urban or suburban areas, it is not surprising that rural residents experience poorer health than urban or suburban residents.

Physical and social isolation can also occur in rural areas making access to medical care, social services, grocery stores and work more difficult. Rural residents generally have to travel farther distances than urban residents to receive medical care.[18] Lack of transportation may impede the ability to obtain services in rural areas, particularly among the poor. Rural areas also tend to have limited numbers of health care professionals and less specialty care, thus making access to health care more difficult.[18]

Living in rural areas and living in poverty increases the chance that individuals will receive some source of publicly funded insurance as opposed to having private insurance. For example, urban and rural children are equally likely to have insurance, but urban children are more likely to have private insurance and rural children are more likely to have coverage through public programs such as Medicaid.[18] Research suggests that receiving publicly funded insurance is associated with health disparities. For example, a study published by the American Cancer Society found that individuals with Medicaid insurance were less likely than individuals with private insurance to receive recommended screenings for cancer and more

Health Disparities Defined

The National Institutes of Health defines health disparities as the "differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States".[25] Differences can occur by gender, race/ethnicity, education or income, disability, geographic location or sexual orientation.

In the past decade there have been national efforts toward developing a comprehensive set of disease prevention and health promotion objectives. *Healthy People 2010* identifies the most significant preventable threats to our health and establishes national goals to reduce those threats. One of the main goals of *Healthy People 2010* is the elimination of health disparities.[26]

likely to have advanced stages of cancer upon diagnosis, putting individuals with Medicaid insurance at an increased risk of mortality from their cancer compared to individuals with private insurance.[27]

Understanding the issues that rural people face in meeting their health needs is critical for improving health and preventing disease. Nationwide studies are important for understanding the national importance of rural poverty, however aggregating rural populations does not account for complex social and environmental influences on health that can exist within rural areas. Are there health disparities within rural areas and if so, what are the factors that contribute to this? How does poverty and place impact health and access to care in rural areas? Rural areas, such as the Redwood Coast Region, can help us answer these questions. Ultimately, the answers to these questions can help us to identify needs as well as discover tools for improving health.

Poverty in the Redwood Coast Region: Census Data

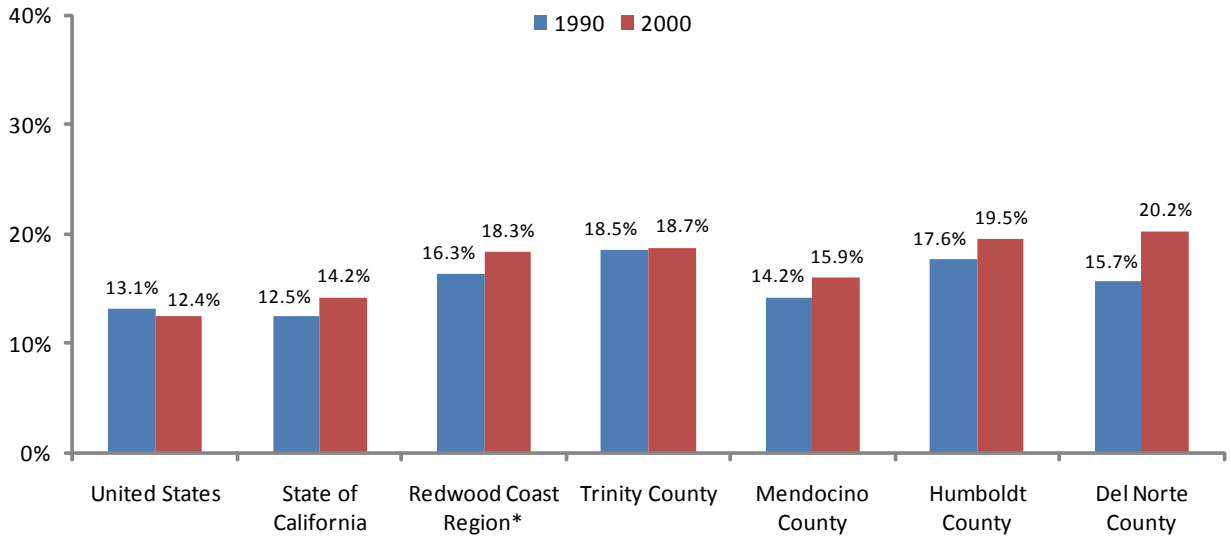
The Redwood Coast Region includes California's four most northern counties- Del Norte, Humboldt, Trinity and Mendocino. Poverty rates are high in this rural region of Northern California. Analysis of U.S. Census data reveals variation in poverty in the Redwood Coast Region by place, age, family structure and race/ethnicity.

According to the 2000 U.S. Census, 18.3% of the total population in the Redwood Coast Region lives in poverty. By comparison, 12.4% of the population in the United States and 14.2% of the population in California lives in poverty. Within the Redwood Coast Region, poverty rates are highest in Del Norte County (20.2%), followed by Humboldt County (19.5%), Trinity County (18.7%) and Mendocino County (15.9%).

From 1990 to 2000 poverty rates decreased in the United States, but increased in California and the Redwood Coast Region. Every county in the Redwood Coast Region experienced an increase in poverty between 1990 and 2000 (Exhibit 1).[28]

On a sub-county level, the prevalence of poverty reaches as high as 44% in certain census tracts in the Redwood Coast Region (Exhibit 2).

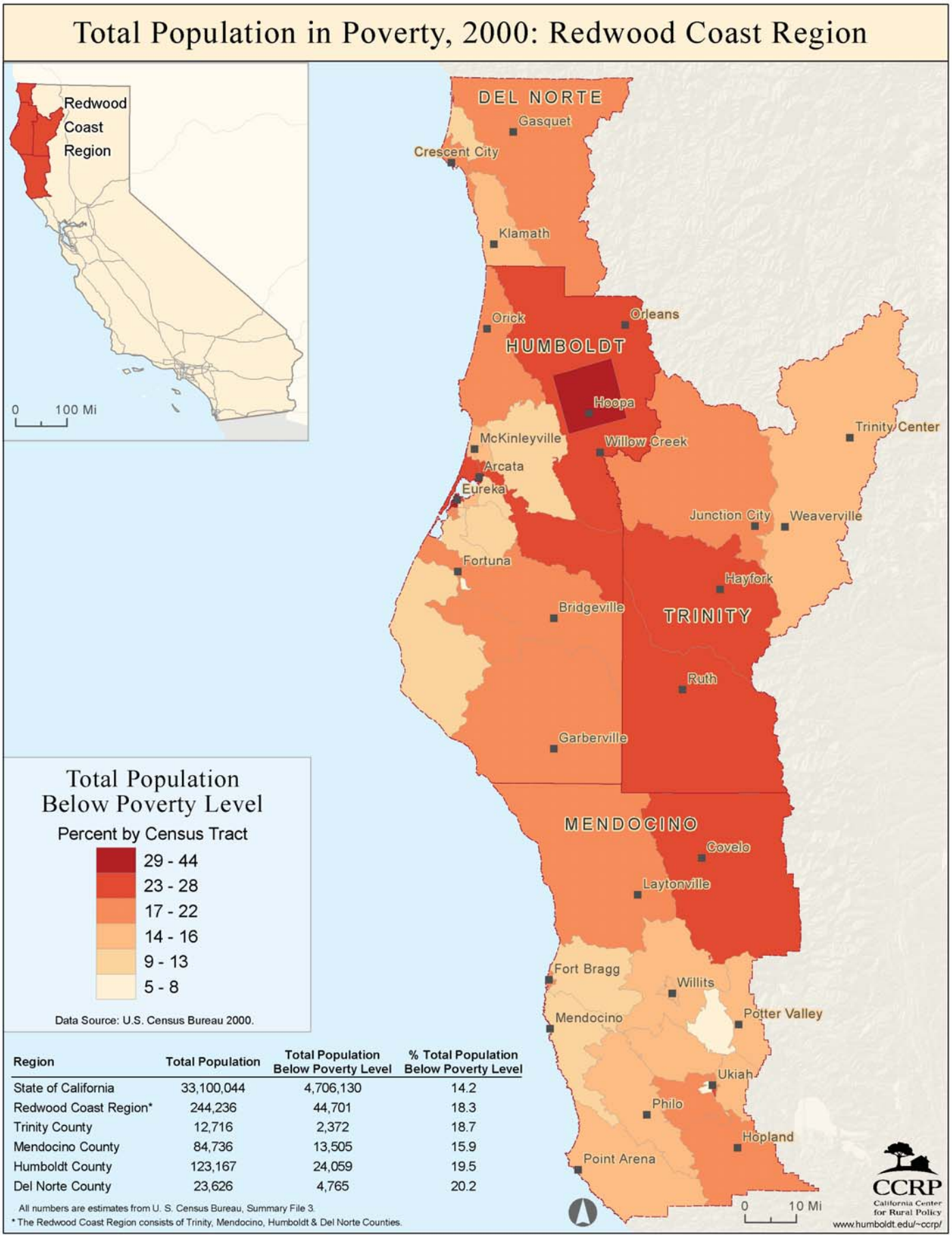
Exhibit 1: Percent of Total Population in Poverty, 1990-2000



Region	Total Population With Poverty Estimates	Total Population Below Poverty Level	% Total Population Below Poverty Level
United States	273,882,232	33,899,812	12.4
State of California	33,100,044	4,706,130	14.2
Redwood Coast Region*	244,236	44,701	18.3
Trinity County	12,716	2,372	18.7
Mendocino County	84,736	13,505	15.9
Humboldt County	123,167	24,059	19.5
Del Norte County	23,626	4,765	20.2

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, Summary File 3 (year 2000) and Summary Tape File 3 (year 1990).
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Exhibit 2



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* The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties.

Children under 18 in Poverty

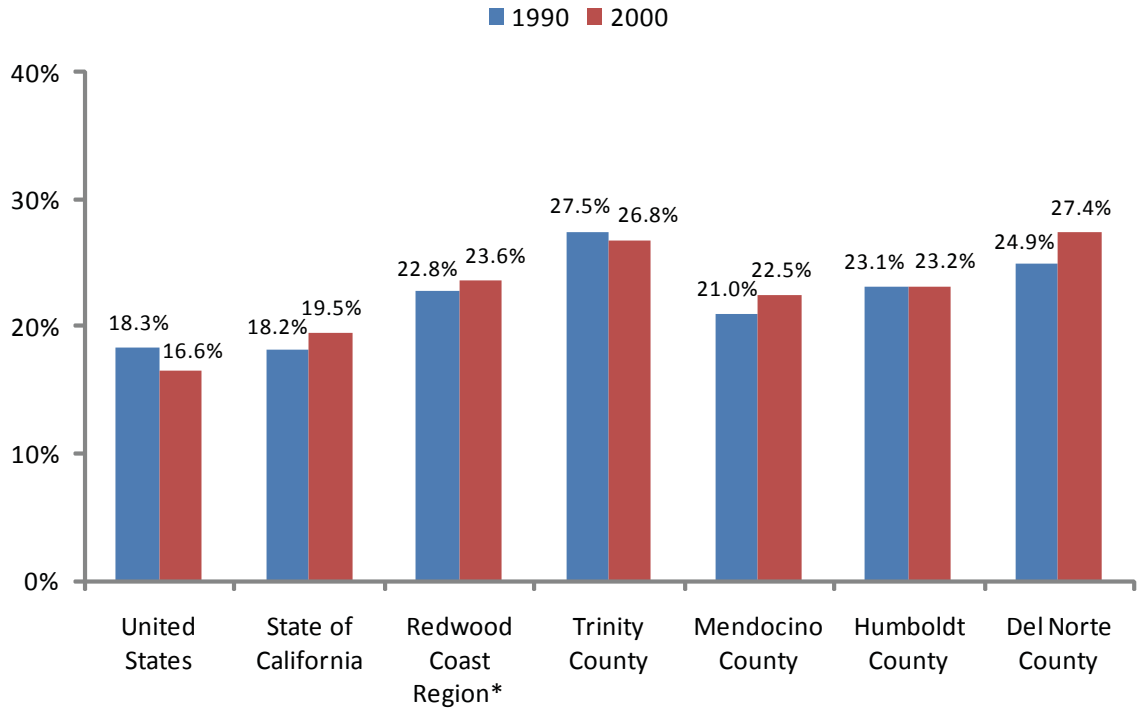
The distribution of poverty in the Redwood Coast Region varies considerably by age. According to the 2000 U.S. Census, 23.6% of the population under age 18 in the region lives in poverty. By comparison, the prevalence of poverty among the population under age 18 is 16.6% in the U.S. and 19.5% in California.

From 1990 to 2000 poverty rates among children under age 18 decreased in the U.S., but increased in California and the Redwood Coast Region.

With the exception of Trinity County, each county in the Redwood Coast Region experienced an increase in poverty among children under age 18 from 1990 to 2000 (Exhibit 3).[28]

On a sub-county level, the prevalence of poverty among children under age 18 reaches as high as 44% in certain census tracts in the Redwood Coast Region (Exhibit 4).

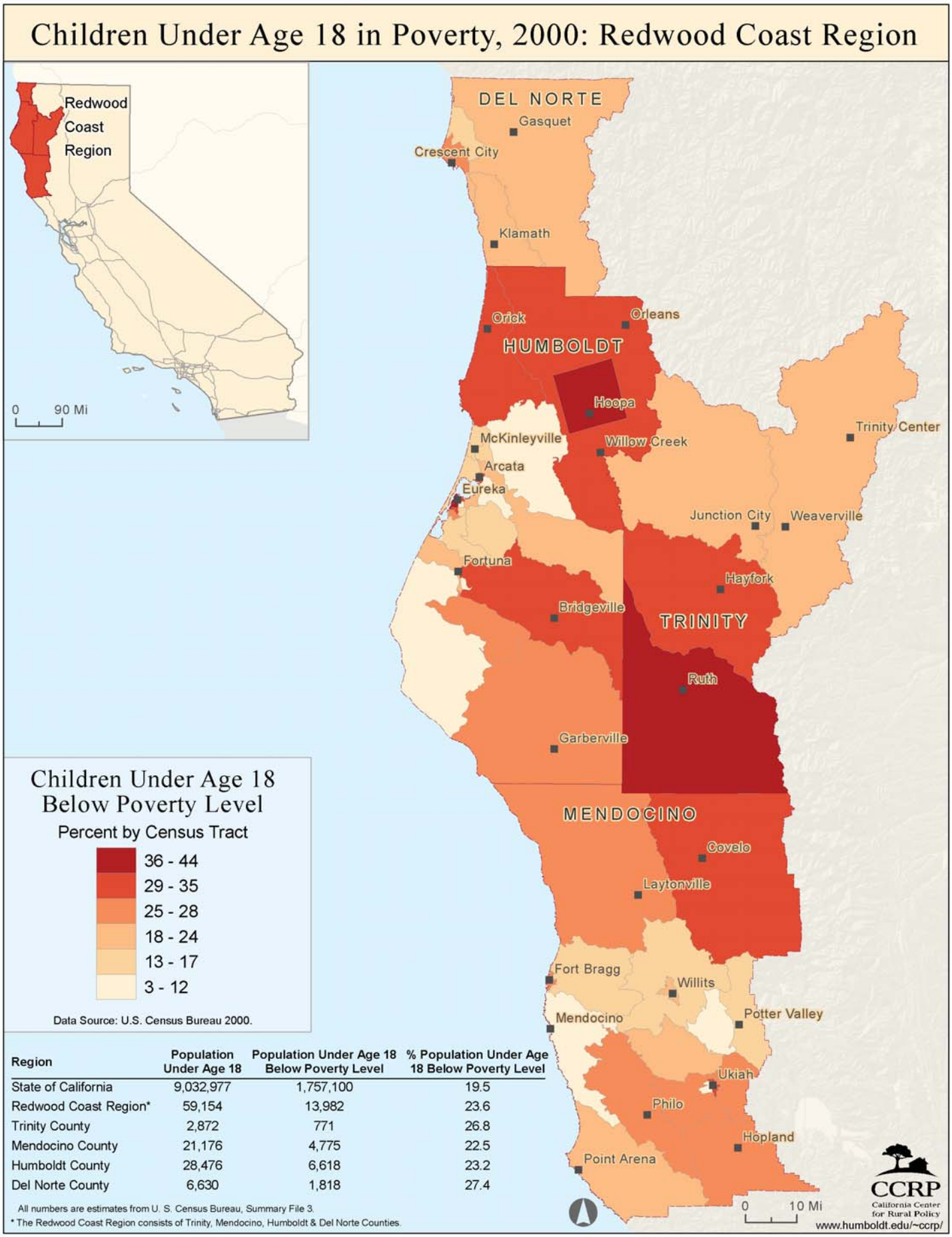
Exhibit 3: Percent of Children under 18 in Poverty, 1990-2000



Region	Total Population Under Age 18 With Poverty Estimates, 2000	Total Population Under Age 18 Below Poverty Level, 2000	% Population Under Age 18 Below Poverty Level, 2000
United States	70,925,261	11,746,858	16.6
State of California	9,032,977	1,757,100	19.5
Redwood Coast Region*	59,154	13,982	23.6
Trinity County	2,872	771	26.8
Mendocino County	21,176	4,775	22.5
Humboldt County	28,476	6,618	23.2
Del Norte County	6,630	1,818	27.4

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, Summary File 3 (year 2000) and Summary Tape File 3 (year 1990).
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The equation used to determine percent below the poverty level is: Percent population under age 18 below poverty level= Total persons under age 18 below the poverty level/ Total Population under age 18 with poverty status estimated.

Exhibit 4



Region	Population Under Age 18	Population Under Age 18 Below Poverty Level	% Population Under Age 18 Below Poverty Level
State of California	9,032,977	1,757,100	19.5
Redwood Coast Region*	59,154	13,982	23.6
Trinity County	2,872	771	26.8
Mendocino County	21,176	4,775	22.5
Humboldt County	28,476	6,618	23.2
Del Norte County	6,630	1,818	27.4

All numbers are estimates from U. S. Census Bureau, Summary File 3.
* The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties.

Children under 5 in Poverty

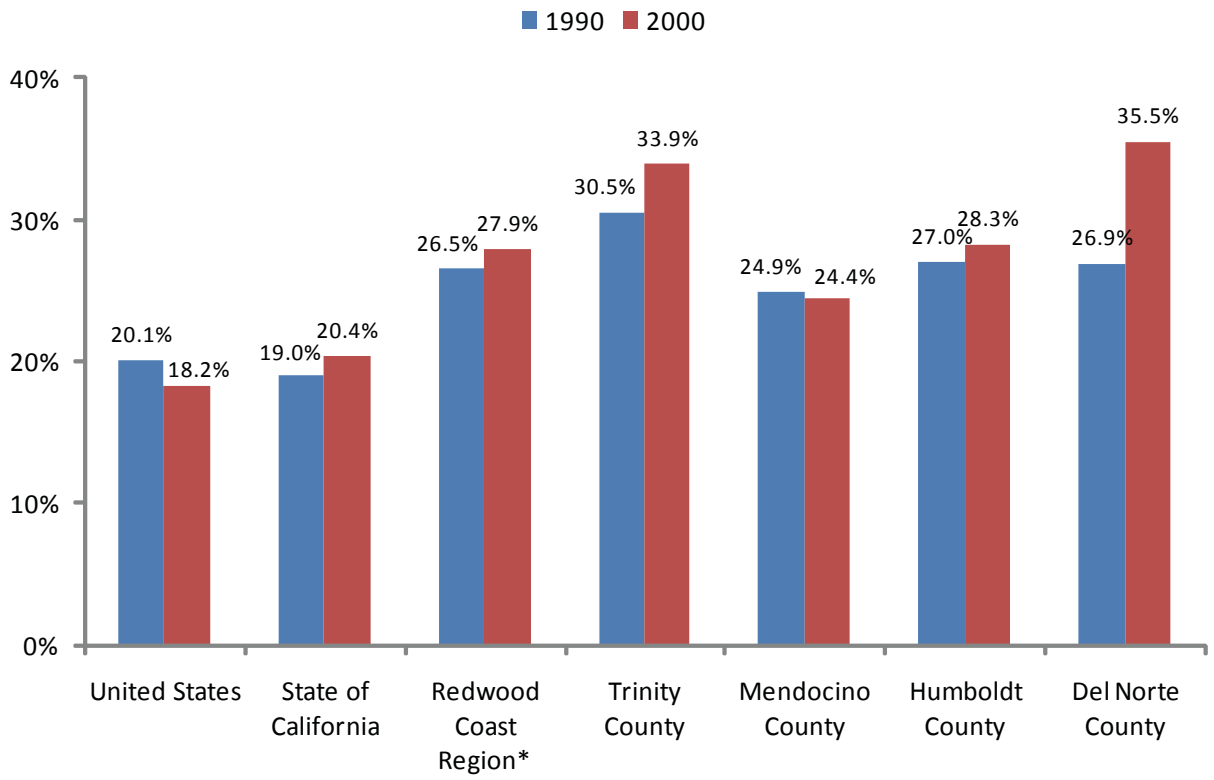
According to the 2000 U.S. Census, 27.9% of the population under age 5 in the region lives in poverty. By comparison, the prevalence of poverty among the population under age 5 is 18.2% in the U.S. and 20.4% in California.

From 1990 to 2000 the prevalence of poverty among children under age 5 decreased in the U.S., but increased in California and the Redwood Coast Region.

With the exception of Mendocino County, each county in the Redwood Coast Region experienced an increase in the prevalence of poverty among children under age 5 from 1990 to 2000 (Exhibit 5).[28]

On a sub-county level, the prevalence of poverty among children under age 5 reaches as high as 54% in certain census tracts (Exhibit 6).

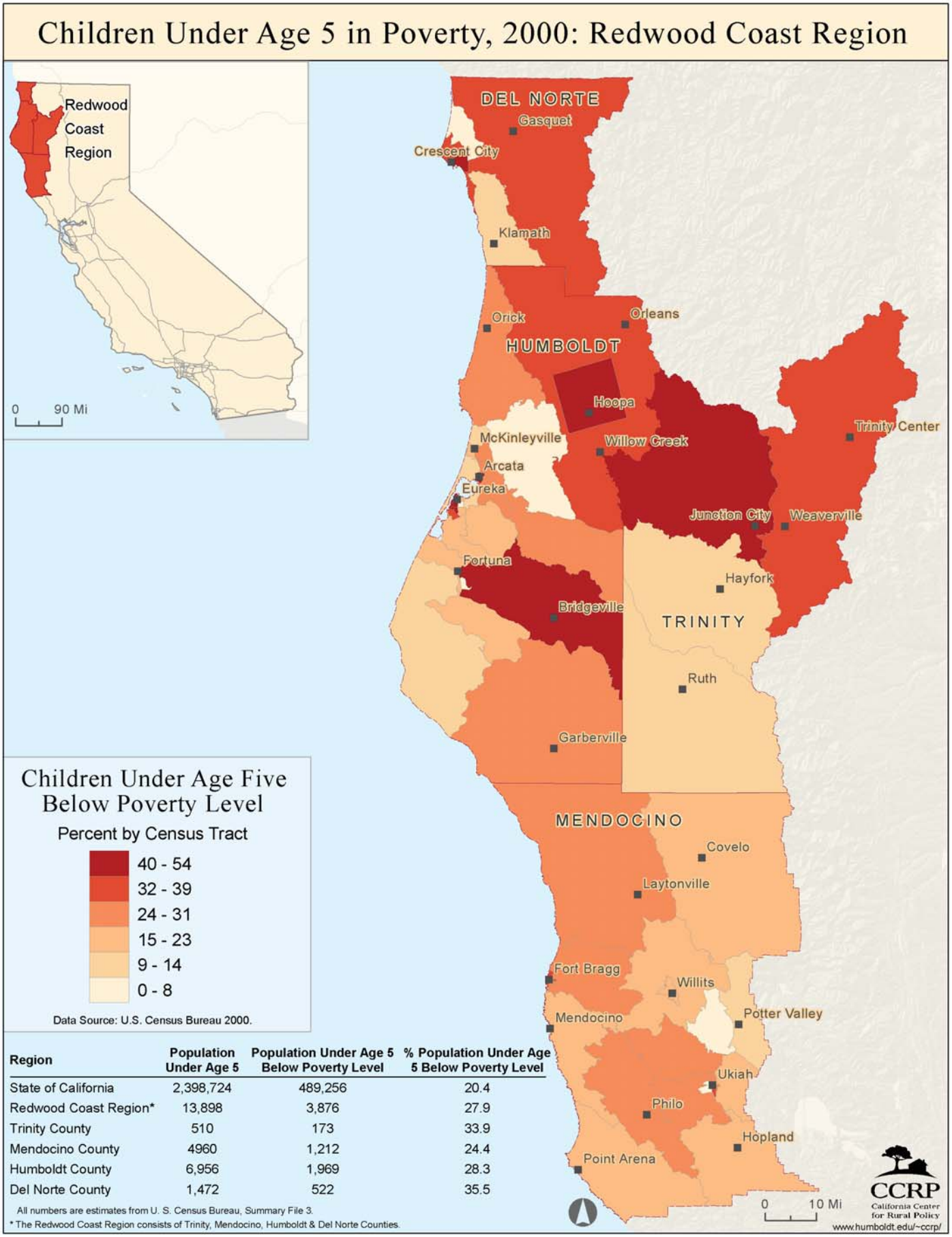
Exhibit 5: Percent of Children under Age 5 in Poverty, 1990-2000



Region	Total Population Under Age 5 With Poverty Estimates, 2000	Total Population Under Age 5 Below Poverty Level, 2000	% Population Under Age 5 Below Poverty Level, 2000
United States	18,726,688	3,412,025	18.2
State of California	2,398,724	489,256	20.4
Redwood Coast Region*	13,898	3,876	27.9
Trinity County	510	173	33.9
Mendocino County	4960	1,212	24.4
Humboldt County	6,956	1,969	28.3
Del Norte County	1,472	522	35.5

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, Summary File 3 (year 2000) and Summary Tape File 3 (year 1990).
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The equation used to determine percent below the poverty level is: Percent population under age 5 below poverty level= Total persons under age 5 below the poverty level/Total Population under age 5 with poverty status estimated.

Exhibit 6



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Redwood Coast Region*	13,898	3,876	27.9
Trinity County	510	173	33.9
Mendocino County	4960	1,212	24.4
Humboldt County	6,956	1,969	28.3
Del Norte County	1,472	522	35.5

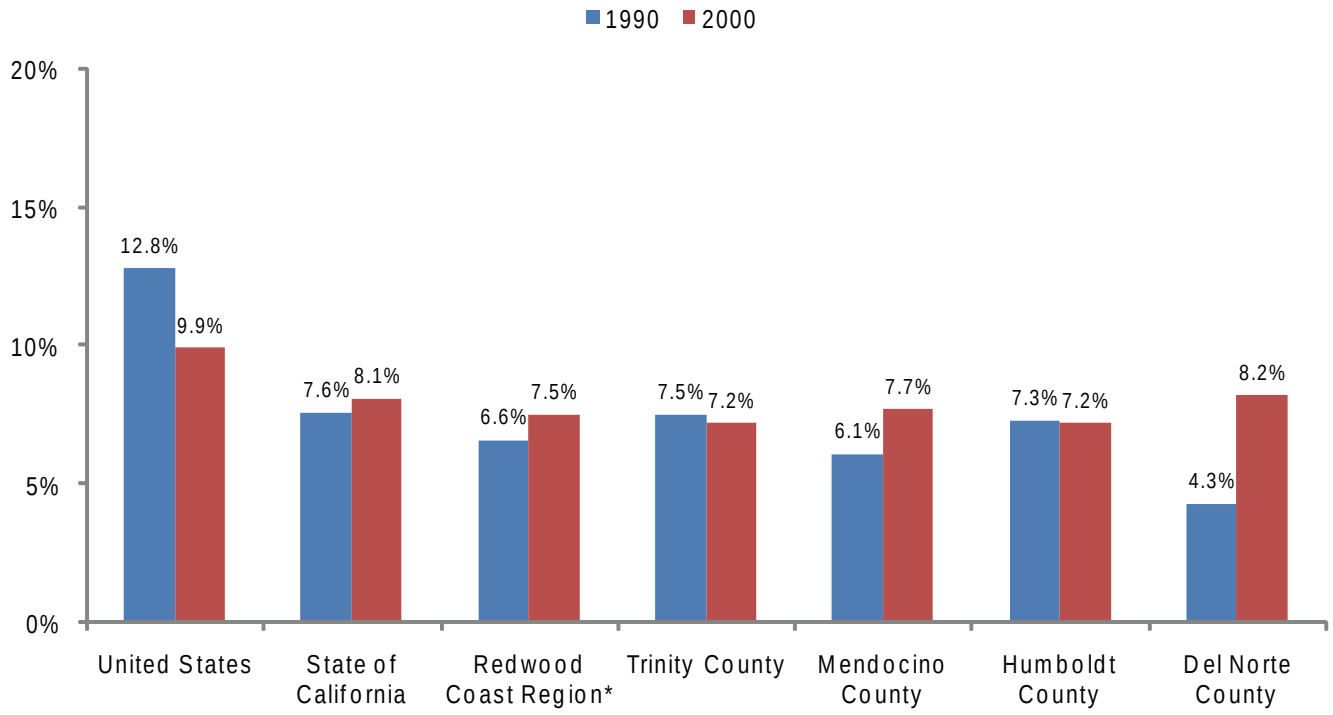
All numbers are estimates from U. S. Census Bureau, Summary File 3.
* The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties.

Elderly in Poverty

According to the 2000 U.S. Census, 7.5% of the elderly population (65 or older) in the Redwood Coast Region lives in poverty. By comparison, in the United States and California the percent of the elderly population living in poverty is 9.9% and 8.1% respectively.

From 1990 to 2000 the poverty rates among the elderly decreased in the United States, but increased slightly in California and the Redwood Coast Region. In Trinity County and Humboldt County poverty rates among the elderly did not change significantly from 1990 to 2000. In contrast, there was an increase in poverty among the elderly in Mendocino County and Del Norte County from 1990 to 2000 (Exhibit 7).[28]

Exhibit 7: Percent of Elderly (≥65 years) in Poverty, 1990-2000



Region	Total Population Age 65 and Older With Poverty Estimates, 2000	Total Population Age 65 and Older Below Poverty Level, 2000	% Population Age 65 and Older Below Poverty Level, 2000
United States	33,346,548	3,287,774	9.9
State of California	3,469,777	280,411	8.1
Redwood Coast Region*	32,306	2422	7.5
Trinity County	11,320	156	7.2
Mendocino County	11,320	873	7.7
Humboldt County	15,477	1118	7.2
Del Norte County	3,346	275	8.2

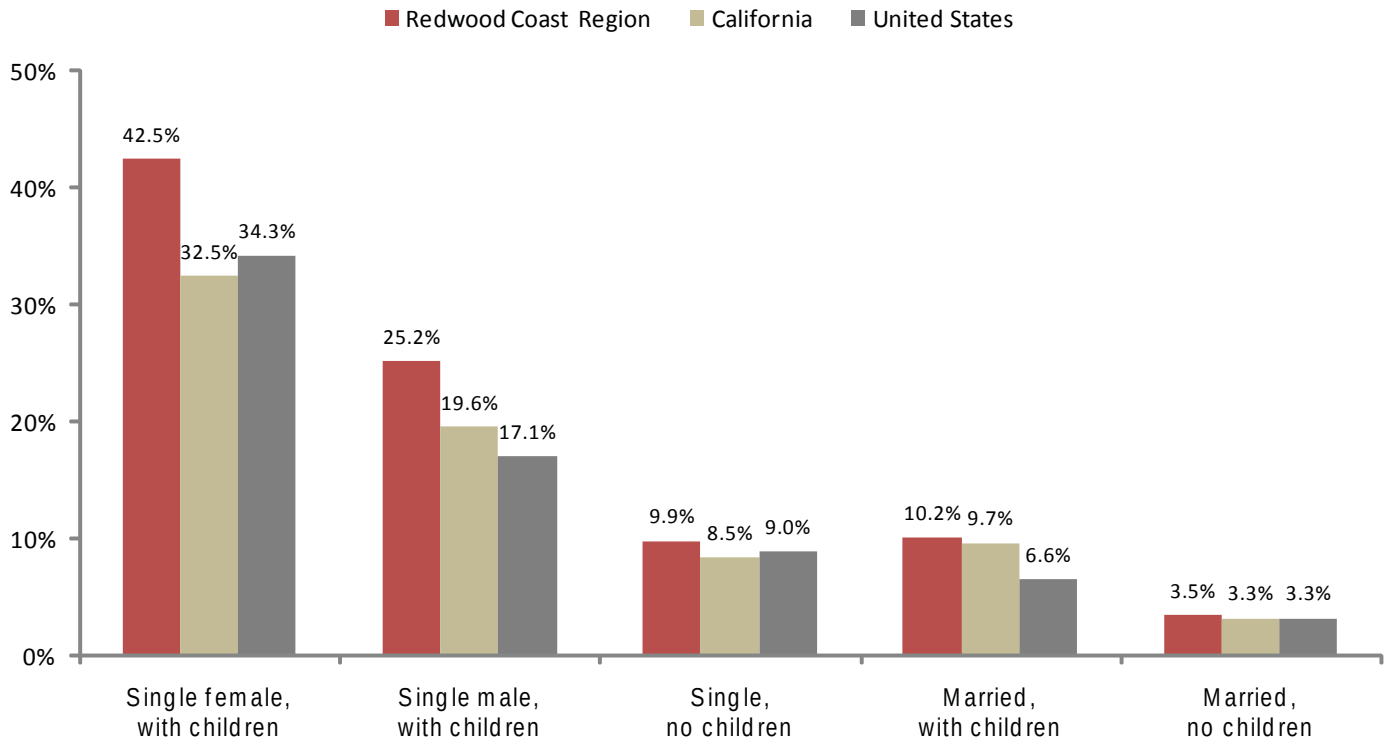
Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, Summary File 3 (year 2000) and Summary Tape File 3 (year 1990).
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The equation used to determine percent below the poverty level is: Percent population 65 years or older below poverty level = Total persons 65 years or older below the poverty level/Total Population 65 years or older with poverty status estimated.

Family Structure and Poverty

Poverty in the Redwood Coast Region varies considerably by family structure. In California and the nation, single women with children have high rates of poverty, but they are considerably higher for single women with children living in the Redwood Coast Region (42.5%).

The next highest poverty rates are among single men with children (25.2%), followed by single adults without children (9.9%) and married couples with children (10.2%). Married couples without children were the least likely to be poor (Exhibit 8).[28] See Appendix A for county specific information.

Exhibit 8: Poverty Rates by Family Type, 2000



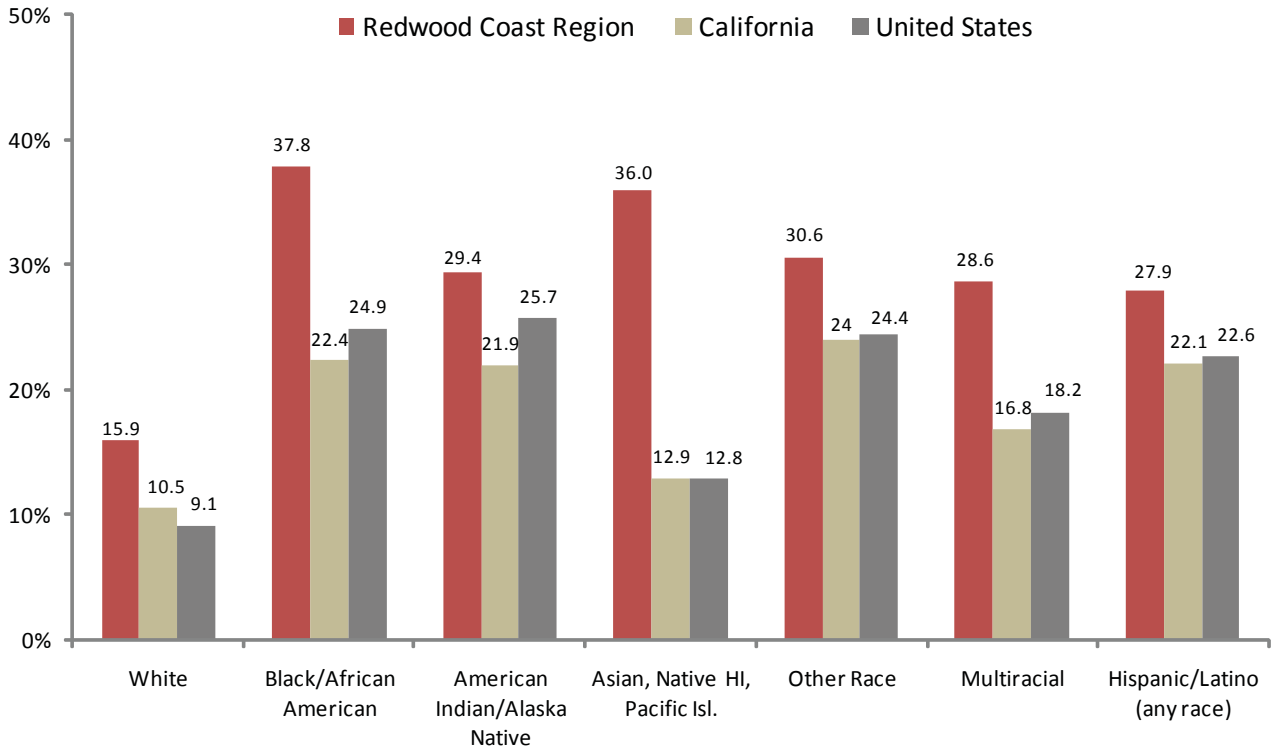
Family Structure	Total Families with Poverty Status Estimated in Redwood Coast Region*	Total Families below Poverty Level in Redwood Coast Region*	Percent Families below Poverty Level in Redwood Coast Region*
Single female, with children	8,539	3,633	42.5
Single male, with children	3,380	851	25.2
Single (male or female), no children	4,356	431	9.9
Married, with children	20,709	2,119	10.2
Married, no children	25,931	902	3.5

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3.
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The equation used to determine percent below the poverty level is: Percent families below poverty level= Total families of given type below the poverty level/Total families of given type with poverty status estimated.

Race/Ethnicity and Poverty

The distribution of poverty in the Redwood Coast Region varies considerably by race/ethnicity. Within the Redwood Coast Region, the race/ethnicity with the highest poverty rate is the Black/African American population (37.8%). The white population has the lowest percentage of poverty (15.9%). Conversely, the total number of people in poverty is highest in the white population (32,300) and lowest in the Black/African American population (528), thus it is important to look at both the percentage and the actual numbers. Compared to California and the United States, the Redwood Coast Region has higher poverty rates for every race/ethnicity (Exhibit 9).[28] See Appendix A for county specific information.

Exhibit 9: Percent of Population below the Federal Poverty Level within each Race/Ethnicity, 2000



Race/Ethnicity	Total Population with Poverty Status Estimated in Redwood Coast Region*	Total Persons below Poverty Level in Redwood Coast Region*	Percent Population below Poverty Level in Redwood Coast Region*
White	203,360	32,300	15.9
Black/African American	1397	528	37.8
American Indian/Alaska Native	13,157	3,863	29.4
Asian, Native Hawaiian and Other Pacific Islander	3,604	1,298	36.0
Other race	11,043	3,375	30.6
Multiracial	11,684	3,337	28.6
Hispanic/Latino	23,797	6,634	27.9

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3, Tables P159A-H.
*The Redwood Coast Region consists of Trinity, Mendocino, Humboldt & Del Norte Counties
The Hispanic/Latino category is not mutually exclusive. Hispanics or Latinos are people who classified themselves in at least one of the specific Spanish, Hispanic, or Latino census categories. People of Hispanic origin may also be of any race.
The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Rural Health Information Survey: Methods

Study Design and Sample

In the fall of 2006, a cross-sectional survey of a random sample of adults residing in the four counties of Humboldt, Del Norte, Trinity and Mendocino was conducted. A four-page self-administered survey was developed by project administrators at CCRP. The survey contained questions about general health, mental health, preventive health and access and utilization of health care. Many of the questions were based on existing surveys (Behavioral Risk Factor Surveillance Survey, California Health Interview Survey, Canadian Community Health Survey and Mendocino Community Health Survey) and new questions were developed as needed to inquire about areas of rural health not previously explored, such as access to transportation, electricity, phones, computers and Internet as well as skills for responding to emergency medical situations and sources of health information.

The survey contained a combination of quantitative and qualitative responses. The quantitative responses were either categorical or continuous numerical answers. A 15% response rate was anticipated and it was desired to compare answers by county. Sample sizes were examined that would be necessary to satisfy a 10% level of precision (i.e., a bound on relative sampling error E of 10%), at a 95% confidence level. To satisfy this criteria, the desired sample size for each county ranged from $n = 23$ to $n = 385$ depending on the question. The number of surveys mailed took these estimates into account.

Surveys were mailed to a random sample of residents within the four county study site. The sampling strategy employed the use of a Geographic Information System (GIS) to map the population density for Zip Code Tabulation Areas (ZCTA)[29] with an overlay of the locations of post offices. All of the post offices in low population density areas (<11 people per square mile) were selected (total post offices = 24; total post office boxes = 8,165). Post offices located in higher population density areas (≥11 people per square mile) were randomly selected (total post offices = 19; total post office boxes = 15,441). Forty three different communities in the Redwood Coast Region were sampled (Exhibit 10).

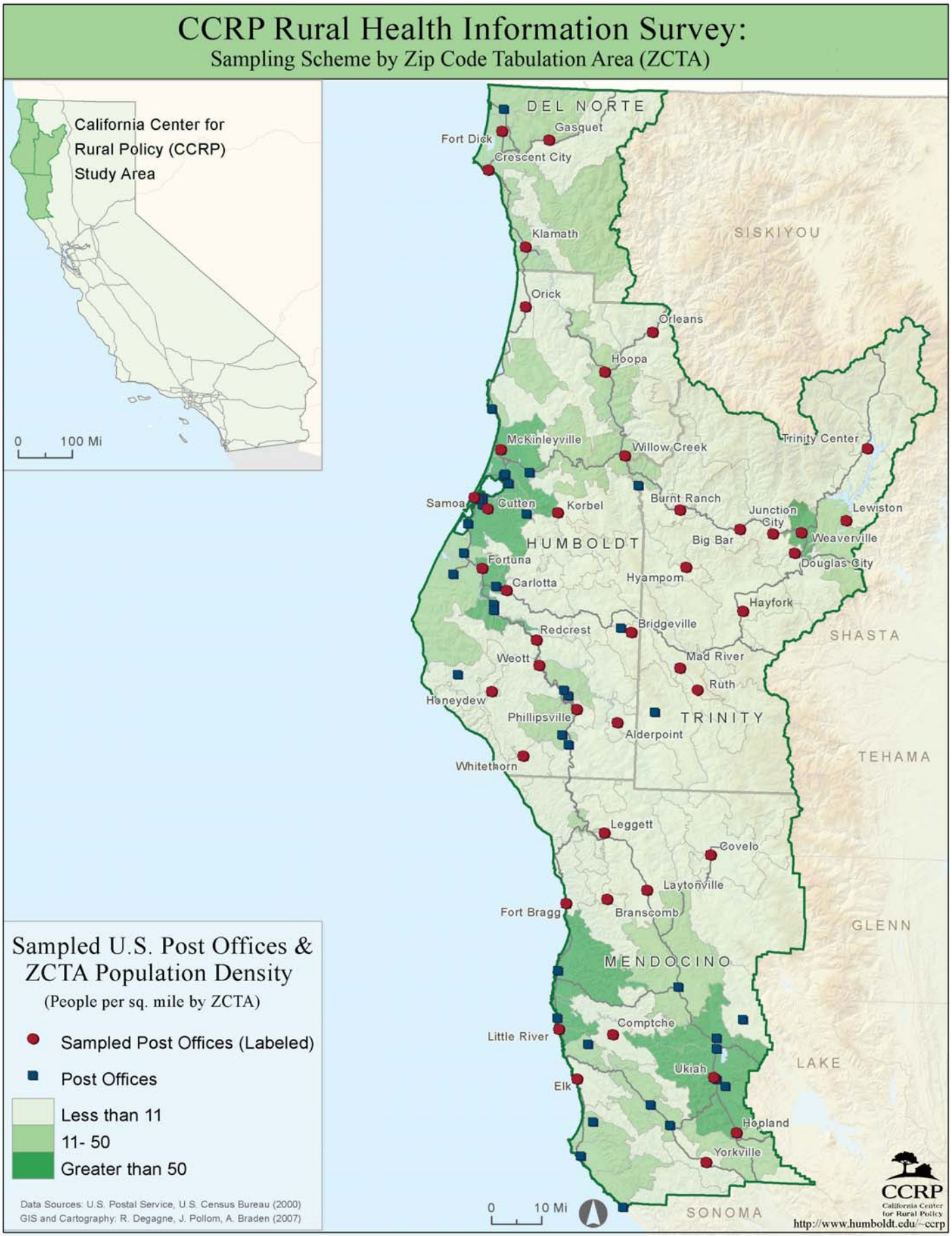
Surveys were addressed to the box holder and the cover letter instructed someone in the household over the age of 18 to complete the survey and return it in the self-addressed stamped envelope. The survey was mailed to a total of 23,606 box holders.

Analysis

Quantitative data was entered and analyzed using SPSS (14.0). To compare proportions and means Chi Square and ANOVA were used respectively for tests of statistical significance with a P value of <0.05 considered statistically significant. Differences found by Chi Square were explored using post hoc testing with Bonferroni adjustment to account for alpha inflation.

Qualitative data was entered and analyzed using ATLAS ti. Codes were developed for the answers to capture common themes.

Exhibit 10


CCRP Rural Health Information Survey:
Sampling Scheme by Zip Code Tabulation Area (ZCTA)
California Center for Rural Policy (CCRP) Study Area
0 100 Mi
DEL NORTE
Fort Dick
Gasquet
Crescent City
Klamath
SISKIYOU
Orick
Orleans
Hoopa
McKinleyville
Willow Creek
Trinity Center
Samoa
Cutten
Korbel
Burnt Ranch
Junction City
Lewiston
HUMBOLDT
Big Bar
Weaverville
Fortuna
Douglas City
Hyampom
Carlotta
Hayfork
Redcrest
Bridgeville
SHASTA
Weott
Mad River
Ruth
Honeydew
Phillipsville
TRINITY
Alderpoint
Whitethorn
TEHAMA
Leggett
Covelo
Laytonville
Fort Bragg
Branscomb
GLENN
MENDOCINO
Comptche
Little River
Ukiah
LAKE
Elk
Hopland
Yorkville
SONOMA
0 10 Mi
Sampled U.S. Post Offices & ZCTA Population Density
(People per sq. mile by ZCTA)
Sampled Post Offices (Labeled)
Post Offices
Less than 11
11- 50
Greater than 50
Data Sources: U.S. Postal Service, U.S. Census Bureau (2000)
GIS and Cartography: R. Degagne, J. Pollom, A. Braden (2007)
CCRP
California Center for Rural Policy
http://www.humboldt.edu/~ccrp

Results

Response Rates

The total number of surveys returned for all four counties was 3,003 (12.7 % overall response rate). The response rates were calculated based on the ZIP code and county to which the surveys were sent. The highest response rate was from Trinity County (14.9 %), followed by Humboldt (12.3 %), Del Norte (12.1 %) and Mendocino (11.2 %) (Exhibit 11).

Among the 3,003 surveys returned, 1.8% (n = 53) were excluded from the final analysis for various reasons (incomplete, filled out for more than one person, living in a county different from the sampled counties, or under the age of 18), yielding a total of 2,950 useable surveys for analysis.

The number of usable surveys by county of residence was 421 for Del Norte, 880 for Humboldt, 940 for Trinity, and 705 for Mendocino. There were 4 respondents who reported more than one of these counties as their primary county of residence. These numbers differ slightly from the numbers presented for the response rates due to the fact that some respondents receive their mail in a county that is different from the county where they live (Exhibit 12). The primary county of residence reported by the respondent was used for the analysis.

The Rural Health Information Survey is the largest study of this type that has ever been conducted in this rural region of California. By comparison, the California Health Interview Survey (CHIS) 2005 adult sample sizes for these counties were: 48 for Del Norte, 818 for Humboldt, 45 for Trinity, and 411 for Mendocino.[30]

For a complete list of sampled towns by county see Appendix B.

By population density, the sample contains 1048 (35.6%) respondents from areas with less than 11 people per square mile, 760 (25.8%) respondents from areas with 11 to 50 people per square mile and 1136 (38.6%) respondents from areas with more than 50 people per square mile (Exhibit 12).

Exhibit 11: Response Rates by County

County	# Mailed	# Returned	Response Rate (%)
Del Norte	3549	431	12.1
Humboldt	7540	931	12.3
Trinity	6254	934	14.9
Mendocino	6263	701	11.2
Total	23,606	3003*	12.7

Source: The Rural Health Information Survey, 2006, California Center for Rural Policy
Response rates were calculated based on the ZIP Code and County to which the surveys were sent.
*6 surveys had an unreadable ZIP code stamp and could not be assigned to a county for determining response rates by county, but are included in the total response rate.

Exhibit 12: Sample Size by County and Population Density

County	<11 ppsm*	11-50 ppsm*	>50 ppsm*	Unknown**	Total
Del Norte	142	39	238	2	421
Humboldt	277	301	300	2	880
Trinity	364	224	351	1	940
Mendocino	262	195	247	1	705
>1 of above	3	1			4
Total	1048	760	1136	6	2,950

*People per square mile
**Six surveys had unreadable zip code stamps and could not be assigned to a population density.
The number of returned surveys and number of usable surveys differ due to the fact that some respondents receive their mail in a county that is different from the county where they live.

Sample Demographics

This section contains selected demographic information about respondents from all four counties combined. For additional demographics and county specific demographics see Appendix C.

Of the 2,921 respondents providing information about their ethnicity, the majority described their ethnicity as white (84.2%), followed by multiracial (5.9%), and Native American (5.1%), with less than 5% of respondents describing their ethnicity as African American, Latino, Asian, or other.

The primary language respondents reported speaking at home was English (98.9%), followed by Spanish (3.9%), "other" languages (3.2%), Native American languages (1.4%) and Asian languages (0.6%) (Exhibit 13). It is interesting to note that only 1.2% of the respondents reported their ethnicity as Latino/Latina, yet 3.2% reported speaking Spanish at home. Respondents who reported speaking Spanish at home described their ethnicity as Latino/Latina, multiracial, white, Native American and "other."

Of the 2,937 respondents who provided their gender, 64.1% were female and 35.9% were male. The age range of respondents (n = 2,890) was 18-104, with a median age of 56 and a mean age of 55.3 (Exhibit 13).

Exhibit 13: Demographic Characteristics of Respondents

Characteristics	Frequency	Percent
Ethnicity		
White	2459	84.2
African American	7	0.2
Latino/Latina	34	1.2
Asian	13	0.4
Native American	148	5.1
Multiracial	173	5.9
Other	87	3.0
Total	**2921**	**100**
Languages spoken at home:		
English	2910	98.9
Spanish	115	3.9
Asian Language	17	0.6
Native American	41	1.4
Other	93	3.2
Gender		
Female	1882	64.1
Male	1053	35.9
Other	2	0.1
Total	**2937**	**100**
Age (mean = 55.3)		
18-30	173	6.0
30-39	240	8.3
40-49	455	15.7
50-59	930	32.2
60-69	656	22.7
70-79	310	10.7
≥ 80	126	4.4
Total	**2890**	**100**

Source: The Rural Health Information Survey, 2006, California Center for Rural Policy
Note: the languages do not equal 100% because respondents were asked to check all languages they speak at home.

Income and Poverty Levels

The median income for the sample is $35,000 per year with a reported range of $0- $400,000 per year.

To determine the poverty levels for the sample, the 2006 U.S. Census Bureau poverty thresholds were used. These federal thresholds account for total household income, total number of persons in the household, and, if applicable, total number of individuals over 65 and/or under 18 years old. For example, if a family of four with two children under 18 makes less than or equal to $20,444 annually, that family is considered to be living in poverty or below 100% of the federal poverty level (FPL). A household income of less than 200% FPL is considered to be low-income. In 2006, a family of four with two children under 18 was considered low-income if the household income was less than or equal to $40,888.[31]

Federal poverty levels were determined for 87% of the sample as 13% of the respondents (n = 389) did not provide the necessary information for determining poverty levels. According to the 2006 U.S. Census Bureau poverty thresholds, 16.2% of the respondents live in poverty. An additional 25.2% live in households with incomes from 100% to 199% of the FPL. Taken together, this means that 41.4% of the respondents are considered to be low-income. The remaining 58.6% are not considered to be low income. Of these, 19.2% live in households with incomes from 200% to 299% of the FPL and 39.4% live in households with incomes at or above 300% of the FPL (Exhibit 14).

By comparison, the 2000 U.S. Census estimates that 18.3% of the population in the four county region lives in poverty (<100% FPL).[28]

Exhibit 14: Federal Poverty Level of Respondents

Federal Poverty Level	Frequency	Percent
≤99%	416	16.2
100%-199%	645	25.2
200%-299%	491	19.2
≥300%	1009	39.4
Total	2561	100

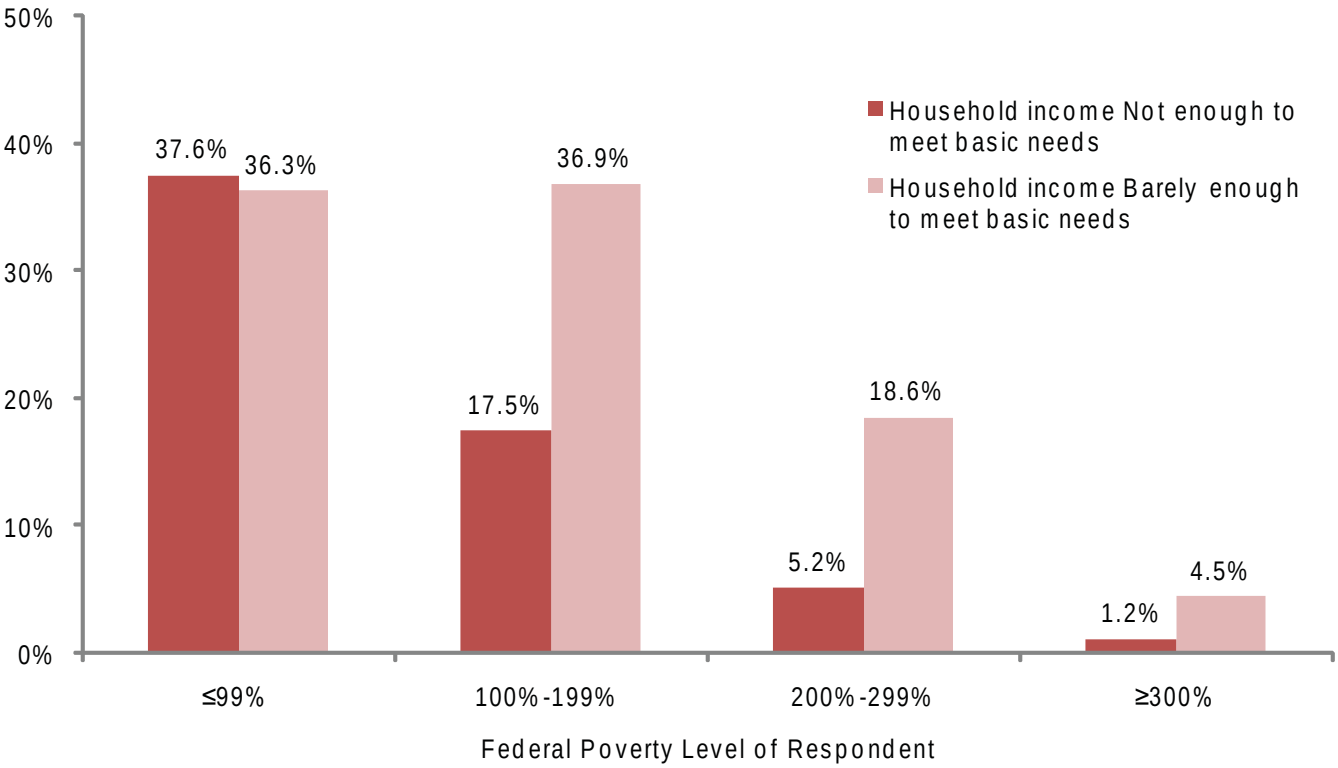
Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Poverty Thresholds obtained from U.S. Census Bureau, "Poverty Thresholds 2006" http://www.census.gov/hhes/www/poverty/threshld/thresh06.html accessed May 2007.
The Federal Poverty Level (FPL) varies by household size. For a family of four (two adults, two children) the 2006 Federal Poverty Level (100% FPL) was $20,444, 200% FPL was $40,888 and 300% FPL was $61,332.

Household Income– Enough to Meet Basic Needs?

Nearly 40% of respondents living in poverty reported their household income was not enough to meet basic needs and an additional 36.3% reported it was barely enough to meet basic needs.

Meeting basic needs was defined as housing, heat, food, clothing and transportation. Of the respondents living in poverty (≤ 99% FPL), a total of 73.9% reported that their household income was either not enough or barely enough to meet basic needs. Over half (54.4%) of the respondents living at 100-200% FPL reported their household income was either not enough or barely enough to meet basic needs. Nearly a quarter (23.8%) of the respondents living at 200-299% reported this and only 5.7% of respondents living at or above 300% FPL reported this (Exhibit 15).

Exhibit 15: Household Income Not Enough or Barely Enough to Meet Basic Needs by Federal Poverty Level of Respondents (*n* = 2,541)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy

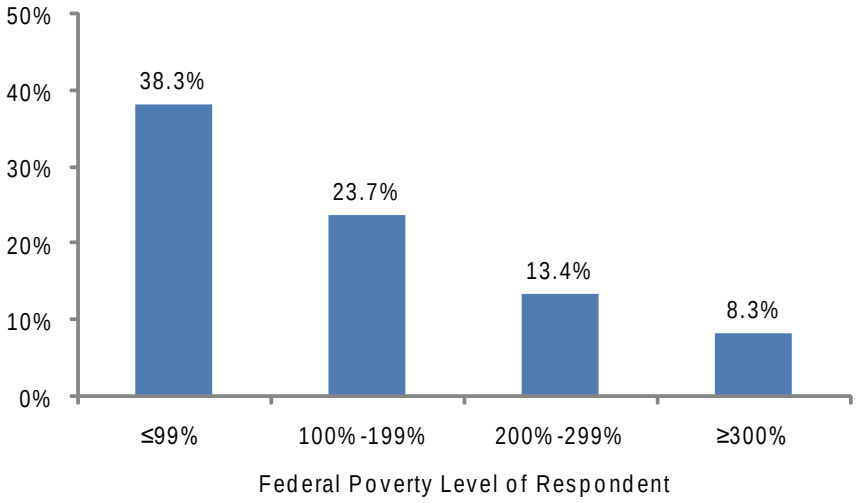
Perceptions of General Health

Respondents living in poverty were 4.6 times more likely to report poor or fair health compared to respondents living at or above 300% poverty

Respondents living at or above 300% poverty were 2 times more likely to report very good or excellent health compared to respondents living in poverty.

Respondents were asked to rate their general health. The majority of the respondents rated their general health as very good (36%) or good (32.9%), followed by fair (13.2%), excellent (12.9%) or poor (5%). However, perceived health was significantly associated with poverty level. Respondents living in the poorest households (≤ 99% FPL) were much more likely to report poor or fair health, whereas respondents living in the higher income households were much more likely to report very good or excellent health. All differences are significant except the difference between respondents in poverty and those at 100-199% FPL reporting very good or excellent health was not significant. The percent of respondents reporting good health did not differ significantly by poverty level (Exhibit 16 & 17).

Exhibit 16: General Health Perceived as Poor or Fair by Federal Poverty Level of Respondents (*n* = 2,536)

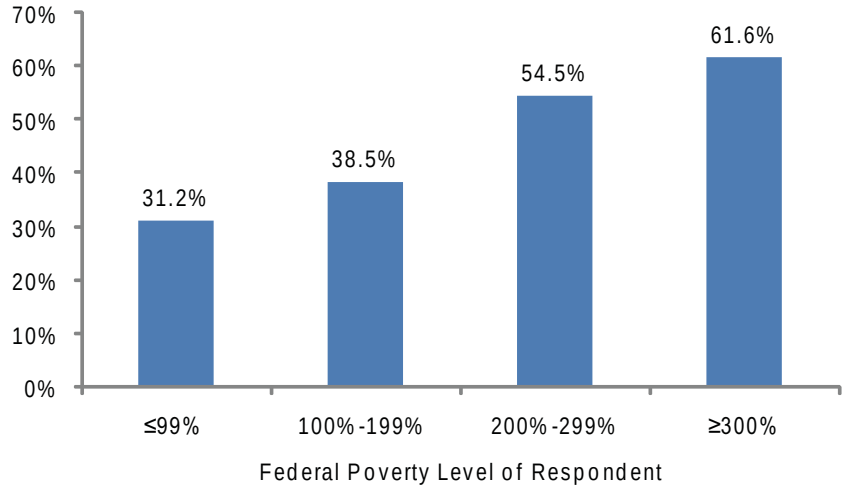


Source: Rural Health Information Survey, 2006, California Center for Rural Policy

What does it mean to be statistically significant?

Whenever comparisons are made between groups there is always the possibility of finding a difference simply by chance. In research we like to find "true" differences and not differences that have occurred by chance. By convention, most researchers use a *P*-value of <.05 to determine if a difference is significant. This means there is less than a 5% probability that the difference observed has occurred by chance alone.

Exhibit 17: General Health Perceived as Very Good or Excellent by Federal Poverty Level of Respondents (*n* = 2,536)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy

Perceptions of Mental Health

Respondents living in poverty were 4.1 times more likely to report feeling sad or depressed most or all of the time compared to respondents living at or above 300% poverty.

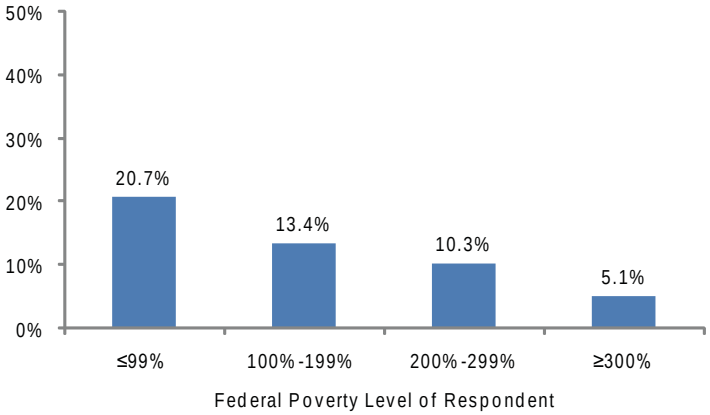
Respondents were asked how often they felt sad or depressed during the past 6 months. The majority of respondents reported feeling sad or depressed a "little of the time" (41.7%), followed by "some of the time" (23.9%), "none of the time" (23.6%), "most of the time" (9.7%) or "all of the time" (1.1%).

Feelings of sadness or depression were significantly associated with poverty level. Respondents living in the poorest households (≤ 99% FPL) were much more likely to report feeling sad or depressed most or all of the time compared to the other poverty levels. As the socioeconomic status of the respondent improves the likelihood of experiencing sadness or depression decreases.

All differences are significant except the difference between respondents at 100-199% FPL and 200-299% FPL reporting sadness or depression most or all of the time was not significant (Exhibit 18)

> "No psychologist/counseling available with CMSP."
> Mendocino County Resident, ≤ 99% FPL

Exhibit 18: Feeling Sad or Depressed "Most" or "All" of the Time by Federal Poverty Level of Respondents (*n* = 2,533)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy

Hunger/Very Low Food Security

Respondents living in poverty were 26.5 times as likely to experience very low food security as those living at or above 300% poverty.

Very low food security is a measure of severe food insecurity resulting in reduced food intake, disrupted eating patterns and hunger.[32] There are numerous poor health outcomes associated with low food security including obesity, diabetes, heart disease, high blood pressure and poor cognitive, academic and psychosocial outcomes.[33,34,35,36]

There was a clear trend in very low food security with respect to poverty. Of the respondents below the federal poverty level, 29.2% reported having very low food security. As the socioeconomic level increased food security improved with only 1.1% of respondents who were at or above 300% FPL reporting very low food security (Exhibit 19).

Food Security Defined

Food security refers to access by all people at all times to enough food for an active, healthy life. If an individual or household has limited or uncertain access to adequate food, then they are considered to be food insecure.[32] A household can be further classified as follows:

Food Secure

High Food Security: No reported indications of food access problems or limitations.

Marginal Food Security: One or more reported indications- typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diet or food intake.

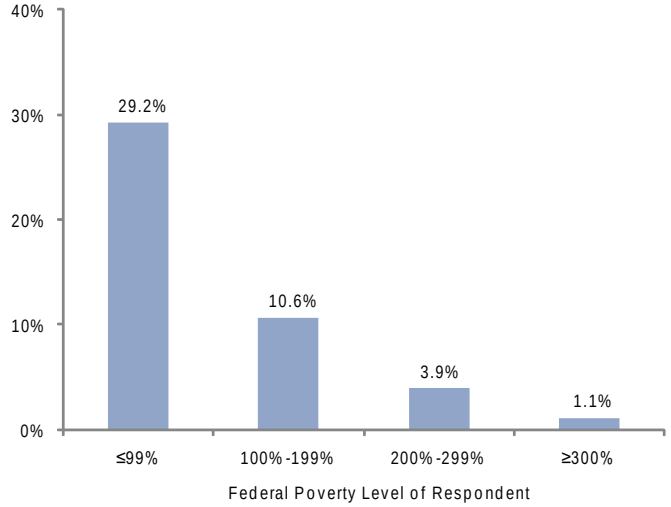
Food Insecure

Low Food Security: Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.

Very Low Food Security: Reports of multiple indications of disrupted eating patterns and reduced food intake.

Source: USDA-ERS[37]

Exhibit 19: Very Low Food Security by Federal Poverty Level of Respondents (*n* = 2,537)



Federal Poverty Level		Very Low Food Security	
	Frequency	Frequency	%
≤99%	407	119	29.2
100%-199%	635	67	10.6
200%-299%	489	19	3.9
≥300%	1006	11	1.1
Total	2537	216	8.5

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "In the last 12 months were you or people living in your household ever hungry because you couldn't afford enough food?" Analysis was restricted to respondents who answered yes or no to the question and provided information necessary for determining poverty level.

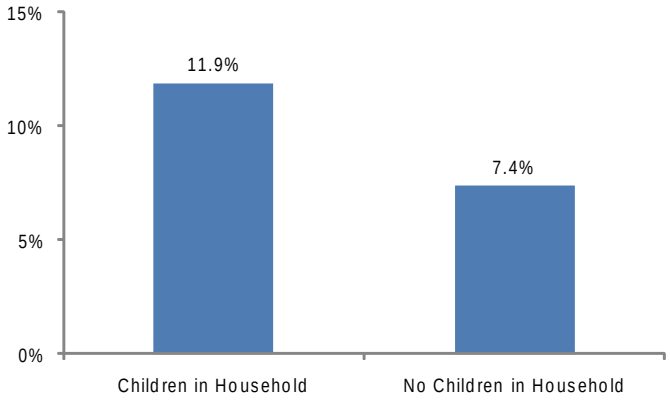
Very Low Food Security: Households with Children are at Risk

Respondents with children living in their home were 1.6 times more likely to report very low food security than respondents who did not have children living in their home.

Of the respondents who live in households with children under 18 years of age, 11.9% reported very low food security compared to 7.4% of respondents who do not have children in their household. Although small, this difference is statistically significant (Exhibit 20).

Among the respondents living in poverty with children under the age of 18 in the household, 32.8% reported very low food security, which is significantly higher than all other poverty levels (Exhibit 21).

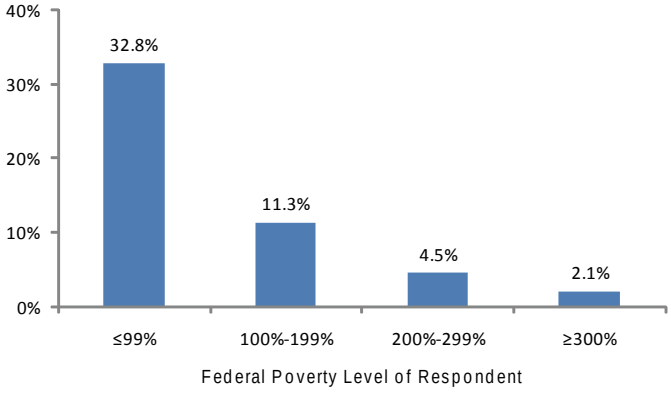
Exhibit 20: Very Low Food Security by Households with Children under 18 (*n* = 2,902)



Children Under Age 18 in Household		Very Low Food Security	
	Frequency	Frequency	%
Yes	716	85	11.9
No	2186	161	7.4
Total	2902	246	8.5

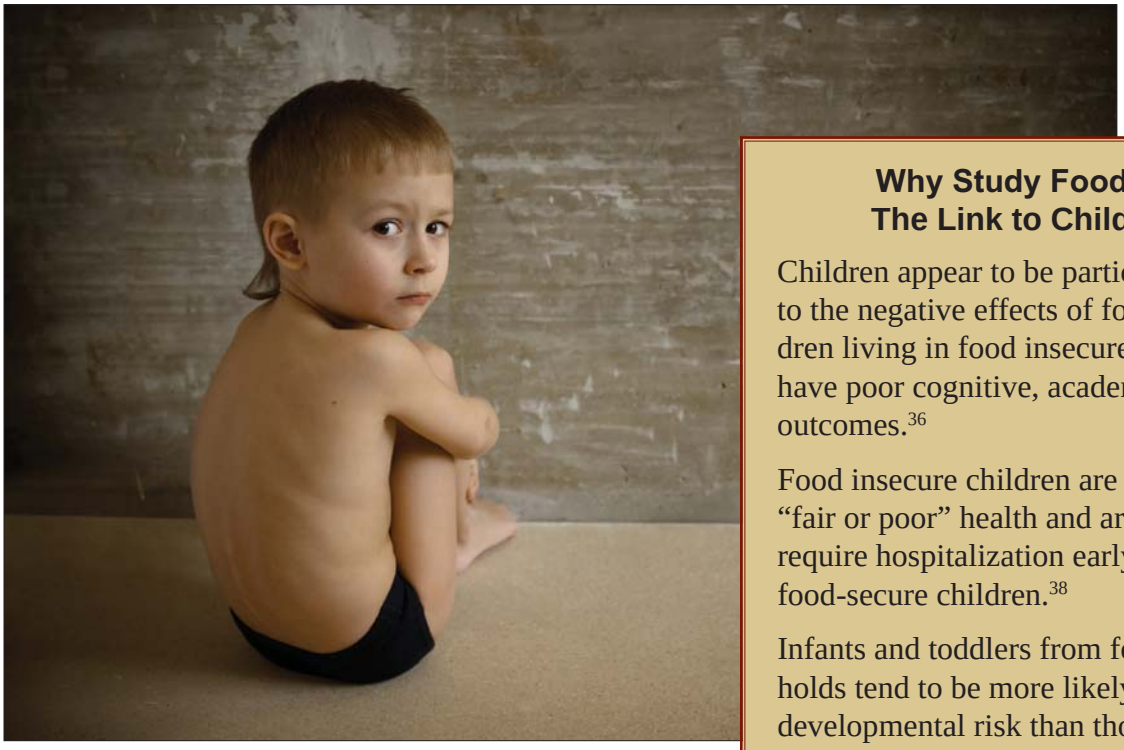
Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "In the last 12 months were you or people living in your household ever hungry because you couldn't afford enough food?" Analysis was restricted to respondents who answered yes or no to the question and provided information necessary for determining poverty level.

Exhibit 21: Very Low Food Security in Households with Children under 18 by Poverty Level (*n* = 656)



Federal Poverty Level		Very Low Food Security	
	Frequency	Frequency	%
≤99%	134	44	32.8
100%-199%	194	22	11.3
200%-299%	134	6	4.5
≥300%	194	4	2.1
Total	656	76	11.6

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "In the last 12 months were you or people living in your household ever hungry because you couldn't afford enough food?" Analysis was restricted to respondents who answered yes or no to the question and provided information necessary for determining poverty level in addition to reporting children under the age of 18 living in the household.



Why Study Food Insecurity? The Link to Children's Health

Children appear to be particularly vulnerable to the negative effects of food insecurity. Children living in food insecure households tend to have poor cognitive, academic and psychosocial outcomes.[36]

Food insecure children are more likely to have "fair or poor" health and are more likely to require hospitalization early in life compared to food-secure children.[38]

Infants and toddlers from food-insecure households tend to be more likely to experience developmental risk than those from food-secure households.[39]

Why Study Food Insecurity? The Link to Health & Obesity

A consistent relationship between food insecurity and poor health status has been demonstrated across a wide range of literature. Numerous studies have shown that individuals living in food insecure households are more likely to report poor physical and mental health than those living in food secure households.[40] Research suggests that food insecurity is related to increased risk for health problems such as obesity, diabetes, heart disease and high blood pressure.[33,34,40]

Research has shown an association between food insecurity and obesity or overweight in adults and children.[33,41] While causal relationships between food insecurity and obesity are difficult to establish, there are several associations that may account for this seemingly paradoxical relationship. Studies have found that food insecurity is associated with lower quality diets, inadequate nutrient intake and reduced consumption of fruits, vegetables, meat and dairy products with increased consumption of cereals, sweets and added fats.[42,43,44]

Research indicates that people who have unpredictable availability of food will tend to overeat when food is available and over time this pattern can result in weight gain.[45] When food intake is periodically inadequate the body may undergo physiologic changes making it more efficient at storing calories as fat.[46]

Very Low Food Security: The Impact of Place

In some sampled communities, up to 25% of respondents have very low food security.

While there were not significant differences in very low food security between counties (Del Norte 10.1%, Humboldt 9.5%, Trinity 6.6% and Mendocino 8.5%), analysis on a sub-county level revealed drastic differences between communities. Depending on the community, very low food security ranged from 2% to 25%. The GIS map on page 41 shows the percent of respondents with very low food security in each sampled community. As would be expected, the census tracts with higher poverty rates tend to have higher percentages of respondents reporting very low food security (Exhibit 22).

For a more detailed analysis and discussion about food security see the "County-Level Reports: Access to Health Care & Food Security" and the CCRP Research Brief "Investigating Very Low Food Security in the Redwood Coast Region" available at http://www.humboldt.edu/~ccrp

Food Insecurity: Place Matters

Determining which communities have high levels of food insecurity can help target policies and programs aimed at alleviating food insecurity. Knowing the level of food insecurity for an entire county is useful, but it does not help the county to prioritize the areas with the greatest need.

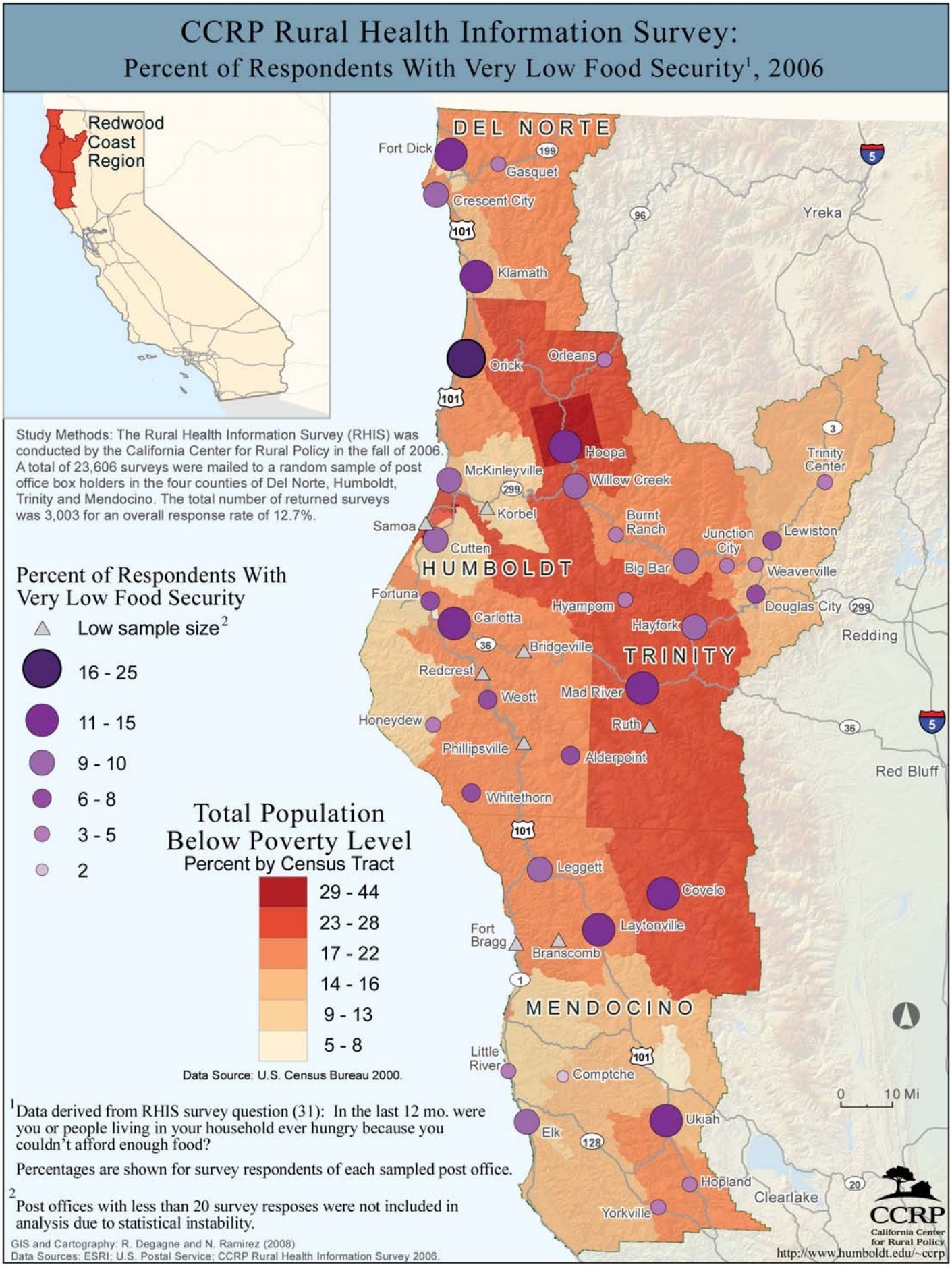
Monitoring food insecurity in communities over time can help determine if programs and policies are making a difference.

Compared to the nation and California it appears that the Redwood Coast Region has a much higher prevalence of households with very low food security. The 2006 Current Population Survey Food Security Supplement found 4.0% of households in the nation with very low food security.[32] For 2004-06 it is estimated that 3.7% of the households in California had very low food security.[32] This is significantly less than the 8.4% of respondents in the Redwood Coast Region reporting episodes of very low food security.

Households with children in the Redwood Coast Region also have a higher prevalence of very low food security (11.9%) compared to the nation (4.3%).[32] This is concerning given the numerous poor health outcomes associated with low food security.

As the price of food increases, it is likely that the food security situation will worsen, so it will be important for communities to collaborate on both short and long-term solutions.

Exhibit 22

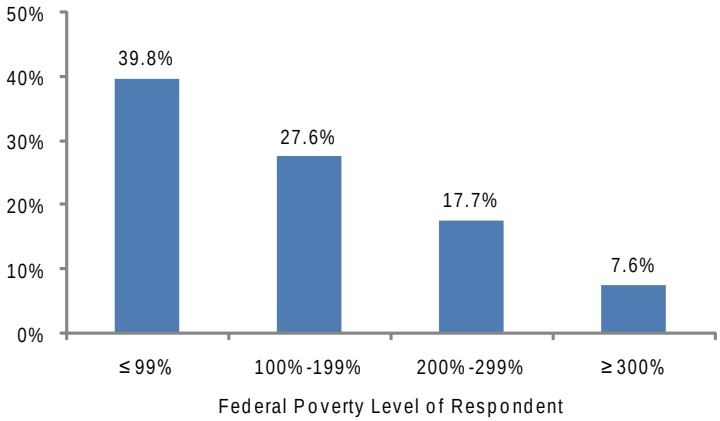

CCRP Rural Health Information Survey:
Percent of Respondents With Very Low Food Security[1], 2006
Redwood Coast Region
Study Methods: The Rural Health Information Survey (RHIS) was conducted by the California Center for Rural Policy in the fall of 2006. A total of 23,606 surveys were mailed to a random sample of post office box holders in the four counties of Del Norte, Humboldt, Trinity and Mendocino. The total number of returned surveys was 3,003 for an overall response rate of 12.7%.
Percent of Respondents With Very Low Food Security
Low sample size[2]
16 - 25
11 - 15
9 - 10
6 - 8
3 - 5
2
Total Population Below Poverty Level
Percent by Census Tract
29 - 44
23 - 28
17 - 22
14 - 16
9 - 13
5 - 8
Data Source: U.S. Census Bureau 2000.
DEL NORTE
HUMBOLDT
TRINITY
MENDOCINO
Fort Dick
Gasquet
Crescent City
Klamath
Orick
Orleans
Hoopa
McKinleyville
Willow Creek
Korbel
Samoa
Cutten
Burnt Ranch
Junction City
Lewiston
Trinity Center
Big Bar
Weaverville
Fortuna
Hyampom
Douglas City
Carlotta
Hayfork
Redding
Bridgeville
Redcrest
Weott
Mad River
Honeydew
Ruth
Phillipsville
Alderpoint
Red Bluff
Whitethorn
Leggett
Covelo
Fort Bragg
Laytonville
Branscomb
Little River
Comptche
Ukiah
Elk
Hopland
Clearlake
Yorkville
Yreka
0 10 Mi
[1]Data derived from RHIS survey question (31): In the last 12 mo. were you or people living in your household ever hungry because you couldn't afford enough food?
Percentages are shown for survey respondents of each sampled post office.
[2]Post offices with less than 20 survey resposes were not included in analysis due to statistical instability.
GIS and Cartography: R. Degagne and N. Ramirez (2008)
Data Sources: ESRI; U.S. Postal Service; CCRP Rural Health Information Survey 2006.
CCRP
California Center for Rural Policy
http://www.humboldt.edu/~ccrp

Access to Health Care for Adults

Respondents living in poverty were 5.2 times more likely to report an inability to get needed health care compared to respondents living at or above 300% poverty.

Of all the respondents, 19.3% reported an inability to get needed health care in the 12 months prior to the survey. This increased to 39.8% for respondents living in the poorest households (≤ 99% FPL). As the federal poverty level of the respondent improves, so does the ability to get needed health care. Differences between respondents' ability to get needed health care at each level of poverty are statistically significant (Exhibit 23).

Exhibit 23: Not Able to Get Needed Health Care by Federal Poverty Level of Respondents (*n* = 2,205)



Federal Poverty Level (FPL)		Not Able to Get Needed Health Care	
	Frequency	Frequency	%
≤99% FPL	364	145	39.8
100%-199% FPL	544	150	27.6
200%-299% FPL	419	74	17.7
≥300% FPL	878	67	7.6
Total	2205	436	19.8

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get the health care (including mental health care) you needed?" The analysis was restricted to respondents who answered "yes" or "no" to the question and provided information necessary for determining poverty level.

Quotes from Respondents

"I can't afford health insurance– I need a pap test + some blood work."
Mendocino County Resident, 100-199% FPL

"I am uninsured and no money for "extras".
Humboldt County Resident, ≤ 99% FPL

"No doctors available who take Medi-Cal."
Del Norte County Resident,≤ 99% FPL

"Cannot afford the high cost - make borderline amount so not qualify for Medi-Cal without a lien on my house."
Trinity County Resident, ≤ 99% FPL

"Lack of insurance and lack of money."
Mendocino County Resident, ≤ 99% FPL

"Provider claimed I did not need help. I was turned away; mainly due to my lack of finances/ability to pay."
Humboldt County Resident, ≤ 99% FPL

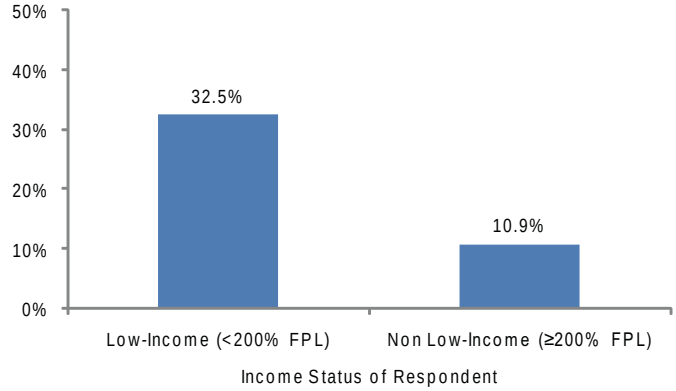
Similarly, low-income respondents were 3 times more likely to report an inability to get needed health care compared to non low-income respondents.

Of the low-income respondents (<200% FPL), 32.5% reported they were not able to get needed health care in the year prior to the survey. This is significantly higher than the non low-income respondents who reported they were not able to get needed health care (10.9%) (Exhibit 24).

On a sub-county level, in some of the sampled communities up to 40% of the respondents reported they were unable to get needed health care in the year prior to the survey (Exhibit 25).

For a more detailed analysis about access to health care within each county see the "County-Level Reports: Access to Health Care & Food Security" available at http://www.humboldt.edu/~ccrp

Exhibit 24: Not Able to Get Needed Health Care by Income Level of Respondents (*n* = 2,205)



Income Status		Not Able to Get Needed Health Care	
	Frequency	Frequency	%
Low-Income (<200% FPL)	908	295	32.5
Non Low-Income (≥200% FPL)	1297	141	10.9
Total	2205	436	19.8

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get the health care (including mental health care) you needed?" The analysis was restricted to respondents who answered "yes" or "no" to the question and provided information necessary for determining income status.

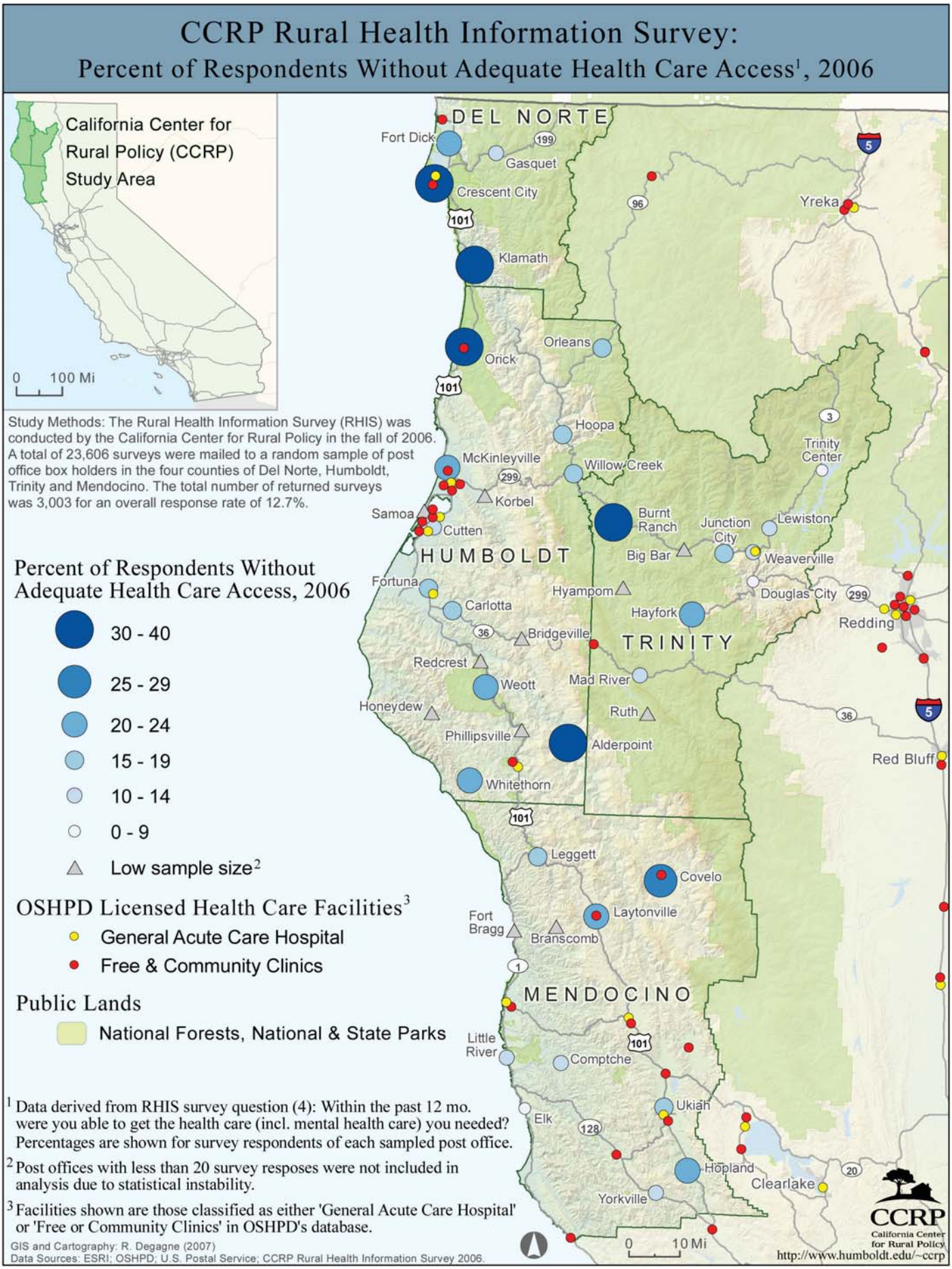
Quotes from Respondents

"No insurance and living well below poverty level to self-pay."
Mendocino County Resident, ≤ 99% FPL

"Way too long of a wait to get medical or dental appointments."
Humboldt County Resident, 200-299% FPL

"Insurance is $5000 deductable so I basically have it for emergency, critical issues."
Mendocino County Resident, 100-199% FPL

Exhibit 25



[1] Data derived from RHIS survey question (4): Within the past 12 mo. were you able to get the health care (incl. mental health care) you needed? Percentages are shown for survey respondents of each sampled post office.

[2] Post offices with less than 20 survey resposes were not included in analysis due to statistical instability.

[3] Facilities shown are those classified as either 'General Acute Care Hospital' or 'Free or Community Clinics' in OSHPD's database.

GIS and Cartography: R. Degagne (2007)
Data Sources: ESRI; OSHPD; U.S. Postal Service; CCRP Rural Health Information Survey 2006.

Reasons Respondents Were Unable to Get Needed Health Care

Issues related to insurance were the most frequently mentioned reasons respondents were unable to get needed health care in the year prior to the survey. No health insurance was the most frequently mentioned insurance issue within each poverty level. Respondents living in poverty (≤ 99% FPL) and respondents living at or above 300% FPL also commonly mentioned issues with publicly-funded insurance (Exhibit 26).

The issues with publicly-funded insurance included difficulties finding providers who accept Medi-Cal or CMSP, not qualifying for publicly-funded insurance due to assets such as owning a car or house, making too much money to qualify for publicly-funded insurance, but not enough to purchase private insurance and needing services that are not covered by publicly-funded insurance (such as dental or mental health services).

Respondents living at 100-199% FPL and 200-299% FPL commonly mentioned issues with being under-insured. This included issues such as deductibles and co-pays being too high, prohibiting respondents from seeking health care because they could not afford the out-of-pocket expense (Exhibit 26).

The cost or expense of health care was a commonly mentioned barrier to obtaining health care for respondents living in poverty, at 100-199% FPL and at 200-299% FPL. Respondents frequently mentioned expense, cost, money issues or being poor as reasons they were not able to obtain needed health care (Exhibit 26).

Quotes from Respondents

"I have insurance yet it's too costly to see a doctor."
Humboldt County Resident, 200-299% FPL

"Even with good insurance co-pays cost too much."
Del Norte County Resident, 200-299% FPL

Specific health care issues was another commonly mentioned barrier to obtaining health care for respondents living in poverty, at 100-199% FPL and at 200-299% FPL. This included difficulties finding and receiving oral and mental health care along with difficulties purchasing prescription drugs (Exhibit 26).

Respondents living at or above 300% FPL frequently mentioned a lack of health care providers and having to leave the local area for care as barriers to receiving needed health care (Exhibit 26).

See Appendix D for all quotes explaining why respondents were unable to obtain needed health care by county and federal poverty level.

Exhibit 26: Top Reasons Respondents were Unable to Get Needed Health Care by Federal Poverty Level

≤99% FPL	100-199% FPL	200-299% FPL	≥300% FPL
Insurance Issues: *No Insurance* *Publicly-Funded Insurance*	**Insurance Issues:** *No Insurance* *Under-Insured*	**Insurance Issues:** *No Insurance* *Under-Insured*	**Insurance Issues:** *No Insurance* *Publicly-Funded Insurance*
Cost/Expense: *Cost of Health Care* *Perceived Poverty*	**Cost/Expense:** *Cost of Health Care* *Perceived Poverty*	**Cost/Expense:** *Cost of Health Care* *Money Issues*	**Lack of Health Care Providers**
Specific Health Care Issues: *Mental Health* *Oral Health* *Prescription Drugs*	**Specific Health Care Issues:** *Mental Health* *Oral Health* *Prescription Drugs*	**Specific Health Care Issues:** *Mental Health* *Oral Health* *Prescription Drugs*	**Leave Local Area for Care**

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get the health care (including mental health care) you needed? If No, please explain why" Responses were categorized into themes and sub-themes. This table presents the themes mentioned most frequently (in bold) and the sub-themes mentioned most frequently (in italics) within each federal poverty level. Not all themes had sub-themes.

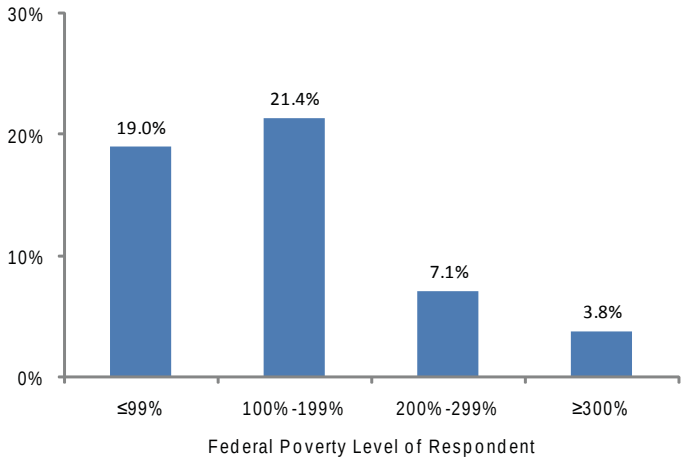
Access to Health Care for Children

Respondents living in poverty were 4.6 times more likely to report an inability to get needed health care for their children compared to respondents living at or above 300% poverty.

The highest percentage of respondents who reported an inability to get needed health care for their children was among those living in poverty (≤99% FPL; 19.0%) and those living at 100-199% poverty (21.4%). While it appears that those living at 100-199% poverty may have more difficulty obtaining needed health care for their children than those who are living in poverty, this difference was not statistically significant. It does, however, suggest a difference between these groups, which may be apparent if there were larger numbers of respondents with children to make comparisons among. Respondents living at or above 300% poverty were the least likely to report an inability to get needed health care for their children (3.8%) followed by those living at 200-299% poverty (7.1%) (Exhibit 27).

Similarly, respondents in low income households (<200% FPL) were significantly more likely to report an inability to get needed health care for their children (20.5%) compared to respondents in non low-income households (>200%) (5%) (Exhibit 28).

Exhibit 27: Not Able to Get Needed Health Care for Children by Federal Poverty Level of Respondents (*n* = 518)



Federal Poverty Level		Not Able to Get Needed Health Care	
	Frequency	Frequency	%
≤99%	105	20	19.0
100%-199%	154	33	21.4
200%-299%	99	7	7.1
≥300%	160	6	3.8
Total	518	66	12.7

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get your child(ren) the health care (including mental health care) they needed?" The analysis was restricted to respondents who answered "yes" or "no" to the question and reported having children under the age of 18 living in the household in addition to providing information necessary for determining poverty level.

Quotes from Respondents

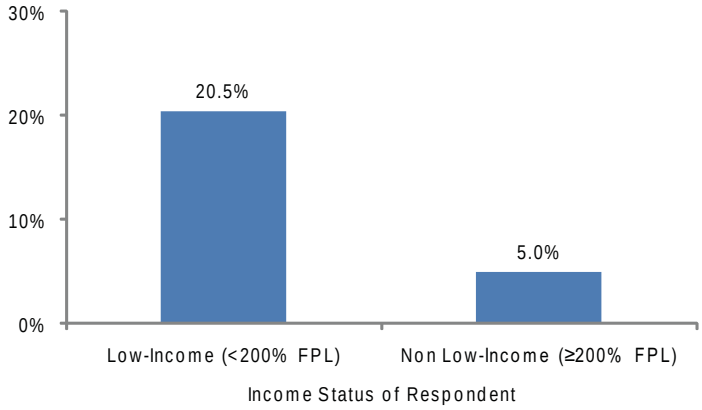
"No. Uninsured and we live below the poverty line."
Humboldt County Resident, ≤ 99% FPL

"Doctors in our region will not take my children's insurance. To see the dentist, it is a 6-12 month wait."
Del Norte County Resident,100-199% FPL

"No health insurance - $8000 deductible."
Trinity County Resident, 100-199% FPL

"No. My child has been denied coverage because he gets migraine headaches."
Mendocino County Resident, ≥300% FPL

Exhibit 28: Not Able to Get Needed Health Care for Children by Income Status (*n* = 518)



Income Status		Not Able to Get Needed Health Care for Children	
	Frequency	Frequency	%
Low-Income (<200% FPL)	259	53	20.5
Non Low-Income (≥200% FPL)	259	13	5.0
Total	518	66	12.7

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get your child(ren) the health care (including mental health care) they needed?" The analysis was restricted to respondents who answered "yes" or "no" to the question and reported having children under the age of 18 living in the household in addition to providing information necessary for determining income status.

For a more detailed analysis about access to health care for children within each county see the "County-Level Reports: Access to Health Care & Food Security" available at http://www.humboldt.edu/~ccrp

Reasons Respondents Were Unable to Get Needed Health Care for Children

Issues related to insurance were the most frequently mentioned reasons respondents were unable to get their children needed health care. No health insurance was the most frequently mentioned insurance issue for respondents living in poverty (≤ 99% FPL) and at 100-199% FPL. Issues with publicly-funded insurance were commonly mentioned by respondents living at 100-199% FPL, 200-299% FPL and ≥300% FPL(Exhibit 29).

Specific health care issues was another commonly mentioned barrier to obtaining health care for children. Finding and receiving oral and mental health care for children was a difficulty expressed by respondents in all poverty levels (Exhibit 29).

A lack of health care providers was commonly mentioned as a barrier to obtaining health care for children for respondents living in poverty and at 100-199% FPL. Having to leave the local area to obtain health care for children (specialty and general care) was commonly reported by respondents living at 200-299% FPL and ≥300% FPL (Exhibit 29).

Concerns about the quality of available care or dissatisfaction with available care was frequently reported as a barrier to obtaining needed health care for children among respondents living in poverty (≤99% FPL) and at 200-299% FPL (Exhibit 29).

See Appendix D for all quotes explaining why respondents were unable to obtain needed health care for their children by county and federal poverty level.

Quotes from Respondents

"Could not find a doctor nearby who knows about childhood anxiety."
Del Norte County Resident,≤ 99% FPL

"No appointments, doctor unable to accept Medi-Cal."
Humboldt County Resident, ≤ 99% FPL

Exhibit 29: Top Reasons Respondents were Unable to Get Their Children Needed Health Care by Federal Poverty Level

≤99% FPL	100-199% FPL	200-299% FPL	≥300% FPL
Insurance Issues: *No Insurance*	**Insurance Issues:** *No Insurance* *Publicly-Funded Insurance*	**Insurance Issues:** *Publicly-Funded Insurance*	**Insurance Issues:** *Publicly-Funded Insurance* *General Insurance Issues*
Specific Health Care Issues: *Mental Health* *Oral Health*	**Specific Health Care Issues:** *Mental Health* *Oral Health*	**Specific Health Care Issues:** *Mental Health* *Oral Health*	**Specific Health Care Issues:** *Mental Health* *Oral Health*
Lack of Health Care Providers	**Lack of Health Care Providers**	**Leave Local Area for Care**	**Leave Local Area for Care**
Quality of Care or Dissatisfaction with Care		**Quality of Care or Dissatisfaction with Care**	

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months were you able to get your child(ren) the health care (including mental health care) they needed? If No, please explain why" The analysis was restricted to respondents who reported having children under the age of 18 living in the household. Responses were categorized into themes and sub-themes. This table presents the themes mentioned most frequently (in bold) and the sub-themes mentioned most frequently (in italics) within each federal poverty level. Not all themes had sub-themes.

Health Insurance

Respondents living in poverty were 4.7 times more likely to be uninsured than respondents living at or above 300% poverty.

Among respondents age 18 to 64, those living in the poorest households (≤99% FPL) and at 100%-199% FPL were equally likely to be uninsured (30.9% and 37.6% respectively). All other poverty levels were significantly different from one another with respect to not having health insurance (Exhibit 30).

Similarly, among respondents age 18 to 64 living in low-income households (<200% FPL), 34.8% were uninsured compared to 10.8% of respondents living in non low-income households (≥200% FPL) (statistically significant difference) (Exhibit 31).

For all poverty levels, the primary reason reported for not having insurance was cost, followed by employment issues. Low-income respondents also mentioned needing assistance with the application process. A frequently mentioned problem was making too much money to qualify for public insurance, but not enough to purchase private insurance.

Quotes from Respondents

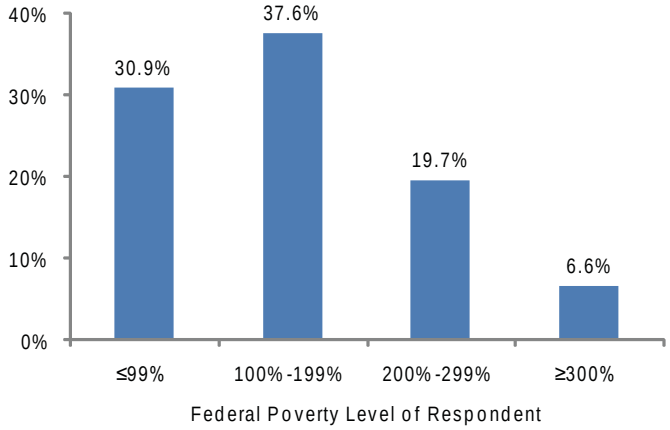
"Cost too much -can't afford - need to feed my family."
Mendocino County Resident

'Medi-Cal expired, dislike amount of paperwork needed to re-apply."
Humboldt County Resident, 100-199% FPL

Analysis on a sub-county level revealed drastic differences between communities with respect to percent of uninsured respondents. Depending on the sampled community, the percent uninsured ranged from a low of 5% in Gasquet and Trinity Center to a high of 44% in Alderpoint.

The GIS map on page 51 shows the percent of respondents without health insurance in each sampled community with the percent of the population living in poverty by Census Tract (Exhibit 32).

Exhibit 30: Uninsured Respondents by Federal Poverty Level (Age 18-64) (*n* = 1,951)

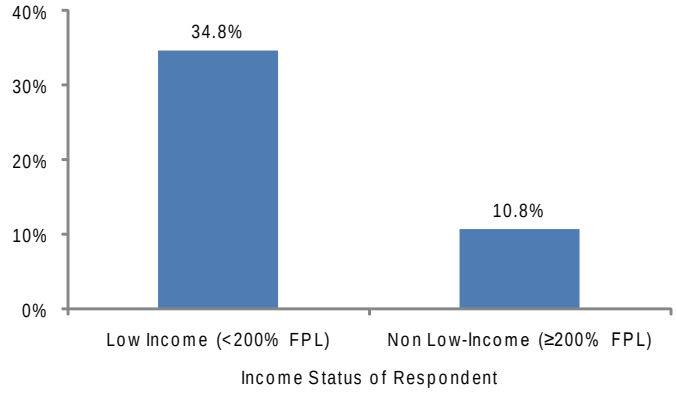


Source: Rural Health Information Survey, 2006, California Center for Rural Policy

Federal Poverty Level	No Health Insurance		
	Frequency	Frequency	%
≤99%	346	107	30.9
100%-199%	482	181	37.6
200%-299%	355	70	19.7
≥300%	768	51	6.6
Total	1951	409	20.9

"Don't make enough to buy and make too much to get help. The curse of the working poor."
Humboldt County Resident

Exhibit 31: Uninsured Respondents by Income Status (Age 18-64) (*n* = 1,951)



Income Status	No Health Insurance		
	Frequency	Frequency	%
Low-Income (<200% FPL)	828	288	34.8
Non Low-Income (≥200% FPL)	1123	121	10.8
Total	1951	409	20.9

Source: Rural Health Information Survey, 2006, California Center for Rural Policy

For a more detailed analysis and discussion about health insurance see the CCRP Research Brief "Health Insurance Disparities in the Redwood Coast Region" available at http://www.humboldt.edu/~ccrp

Quotes from Respondents

"Can't afford it and with 2 jobs and no dependents, I don't qualify for Medi-Cal."
Mendocino County Resident, 200-299% FPL

"Property exceeds Medi-Cal limits, can't afford private insurance."
Humboldt County Resident, 100-199% FPL

Why Study Insurance?

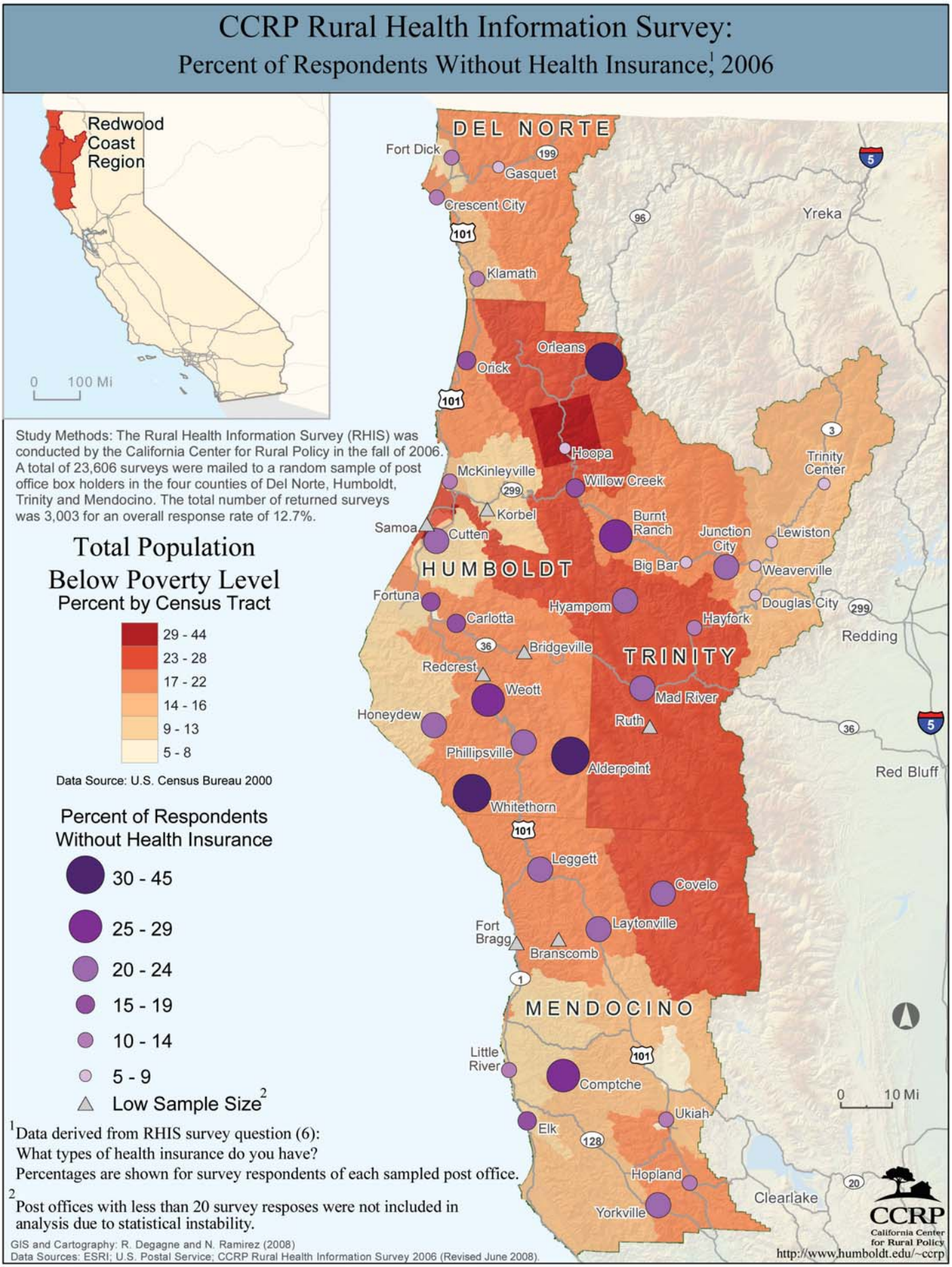
Numerous studies have shown that lack of health insurance or inadequate health insurance are significant barriers to receiving health care services, particularly preventive health services.[27,47] Lack of health insurance is associated with a lower likelihood of having a "medical home" or usual source of care, which translates to less preventive care and inadequate management of chronic conditions.[27]

Screening, early detection and treatment can prevent morbidity and mortality from many conditions. Early detection through screening has been demonstrated to reduce mortality from breast, cervical and colorectal cancer,[48] yet a recent US-based analysis found that uninsured and Medicaid-insured individuals were significantly less likely to receive recommended cancer screenings compared to the privately insured.[27]

Furthermore, uninsured and Medicaid-insured patients had substantially increased risks of presenting with advanced-stage cancers at diagnosis compared to patients with private insurance.[27]

Thus, it is apparent that access to preventive health services is associated with both the presence and type of health insurance.

Exhibit 32


CCRP Rural Health Information Survey:
Percent of Respondents Without Health Insurance[1], 2006
Redwood Coast Region
0 100 Mi
Study Methods: The Rural Health Information Survey (RHIS) was conducted by the California Center for Rural Policy in the fall of 2006. A total of 23,606 surveys were mailed to a random sample of post office box holders in the four counties of Del Norte, Humboldt, Trinity and Mendocino. The total number of returned surveys was 3,003 for an overall response rate of 12.7%.
Total Population Below Poverty Level
Percent by Census Tract
29 - 44
23 - 28
17 - 22
14 - 16
9 - 13
5 - 8
Data Source: U.S. Census Bureau 2000
Percent of Respondents Without Health Insurance
30 - 45
25 - 29
20 - 24
15 - 19
10 - 14
5 - 9
Low Sample Size[2]
[1]Data derived from RHIS survey question (6):
What types of health insurance do you have?
Percentages are shown for survey respondents of each sampled post office.
[2]Post offices with less than 20 survey resposes were not included in analysis due to statistical instability.
GIS and Cartography: R. Degagne and N. Ramirez (2008)
Data Sources: ESRI; U.S. Postal Service; CCRP Rural Health Information Survey 2006 (Revised June 2008).
DEL NORTE
HUMBOLDT
TRINITY
MENDOCINO
Fort Dick
Gasquet
Crescent City
Klamath
Orleans
Orick
Hoopa
McKinleyville
Willow Creek
Korbel
Samoa
Cutten
Burnt Ranch
Junction City
Big Bar
Lewiston
Weaverville
Trinity Center
Yreka
Fortuna
Carlotta
Hyampom
Hayfork
Douglas City
Redding
Bridgeville
Redcrest
Weott
Mad River
Ruth
Honeydew
Phillipsville
Alderpoint
Red Bluff
Whitethorn
Leggett
Covelo
Laytonville
Fort Bragg
Branscomb
Little River
Comptche
Ukiah
Elk
Hopland
Yorkville
Clearlake
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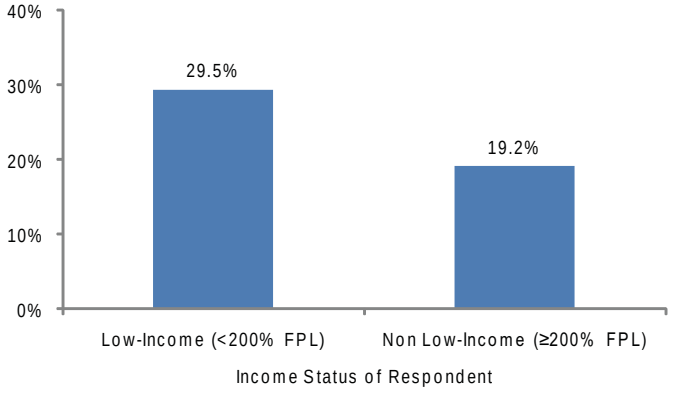
CCRP
California Center for Rural Policy
http://www.humboldt.edu/~ccrp

Use of the Emergency Department

Low-income respondents (<200% FPL) were significantly more likely to have used an emergency department for health care in the past year compared to non low-income respondents (≥200% FPL).

Of the low income respondents, 29.5% reported using an emergency department for health care in the past year, which is significantly higher than use of the emergency department among non low-income respondents (19.2%) (Exhibit 33). There were no significant differences between respondents living in poverty (≤99% FPL) and those at 100-199% FPL or between those at 200-299% FPL and ≥300% FPL.

Exhibit 33: Use of an ER for Health Care in the Past Year by Income Status (*n* = 2,544)



Income Status		Visited an ER for Health Care in Past Year	
	Frequency	Frequency	%
Low-Income (<200% FPL)	1054	311	29.5
Non Low-Income (≥200% FPL)	1490	286	19.2
Total	2544	597	23.5

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Within the past 12 months, did you visit a hospital emergency room for your own health?" The analysis was restricted to respondents who answered "yes" or "no" to the question and provided information necessary for determining poverty/income level.

Primary and Secondary Prevention

This section contains information about primary and secondary prevention. Primary prevention is the process of preventing a disease from occurring, which includes healthy lifestyles (i.e. physical activity and nutritious diet), avoiding exposure to disease causing agents (i.e. tobacco) and receiving disease preventing vaccinations and procedures, such as teeth cleaning.

Secondary prevention is the process of detecting a disease in an early stage when it can be cured or treated (i.e. screening for cancer, diabetes, high blood pressure and cholesterol disorders).

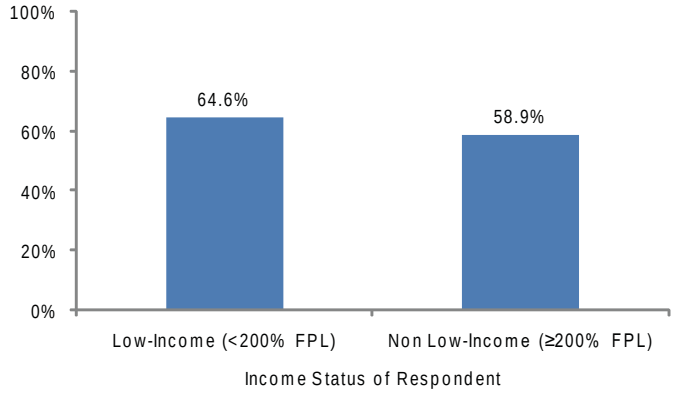
Primary Prevention: Physical Activity

Low-income respondents were significantly more likely than non low-income respondents to report physical activity levels that meet the CDC recommendations.

The Centers for Disease Control and Prevention recommend that adults engage in either moderate-intensity activities for at least 30 minutes on 5 or more days of the week or vigorous-intensity activity for at least 20 minutes on 3 or more days of the week.[49]

Of the low-income respondents, 64.6% reported meeting the recommendations for moderate or vigorous activity, which is significantly higher than the non low-income respondents who reported meeting these recommendations (58.9%) (Exhibit 34).

Exhibit 34: Meeting Recommendations for Moderate or Vigorous Activity by Income Status (*n* = 2,540)



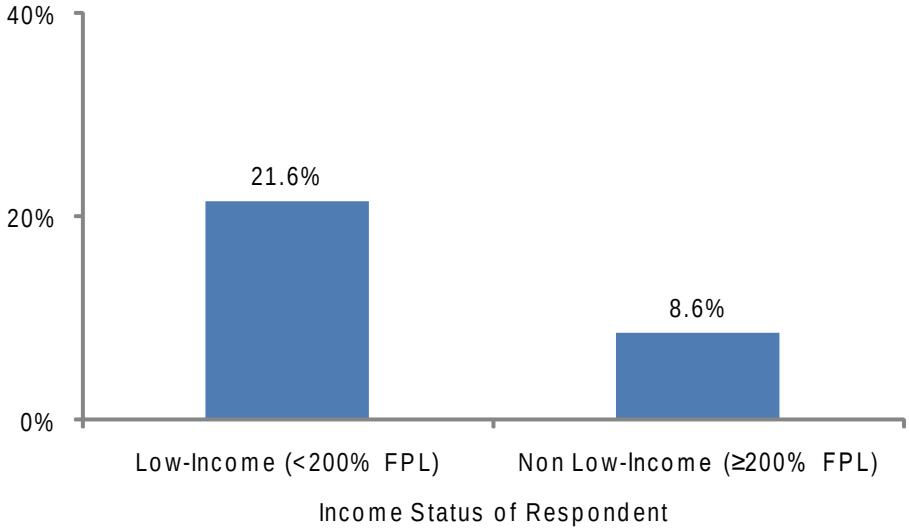
Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the questions, "In a usual week, how many days do you participate in moderate activity for at least 30 minutes per day? (examples include but not limited to: brisk walking, bicycling, vacuuming, gardening or anything else that cause some increase in breathing or heart rate)" and "In a usual week, how many days do you participate in vigorous activity for at least 20 minutes per day? (examples include but not limited to: running, aerobics, heavy yard work or anything else that causes large increases in breathing or heart rate)."
Respondents were considered to be meeting recommendations if they reported participating in 30 minutes of moderate activity at least 5 days a week and/or 20 minutes of vigorous activity at least 3 days a week.

Primary Prevention: Cigarette Smoking

Low-income respondents were significantly more likely than non low-income respondents to report daily cigarette smoking.

Of the low-income respondents, 21.6% reported smoking cigarettes on a daily basis, which is significantly higher than the non low-income respondents who reported daily cigarette smoking (8.6%) (Exhibit 35).

Exhibit 35: Daily Cigarette Smoking by Income Status (*n* = 2,350)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "How often do you smoke cigarettes?"
Analysis was restricted to respondents who reported smoking cigarettes daily or not at all and provided information necessary for determining income level.

Primary Prevention: Heavy Alcohol Consumption

There was no difference between low-income respondents and non low-income respondents who reported drinking alcohol (4 or more alcoholic beverages on one occasion) daily or a few times a week (low-income respondents 12.2%; non low-income respondents 13.6%).

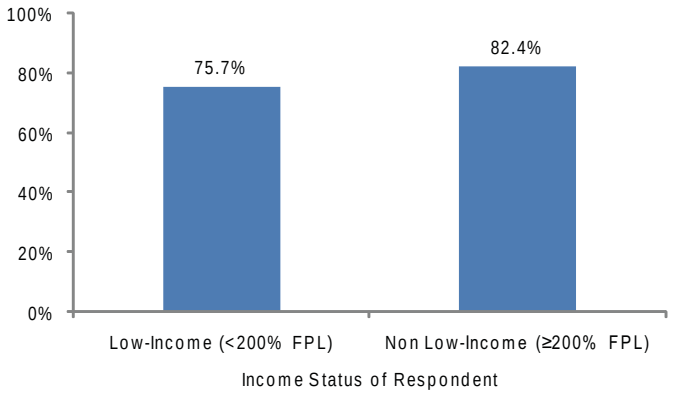
Primary Prevention: Tetanus Booster

Low-income respondents were significantly less likely to have received a tetanus booster in the past 10 years compared to non low-income respondents.

Of the low-income respondents, 75.7% reported receiving a tetanus vaccination in the past 10 years, which is significantly lower than the non low-income respondents who received a tetanus vaccination in the past 10 years (82.4%) (Exhibit 36).

> The Centers for Disease Control and Prevention recommend a tetanus booster every 10 years for adults.[50]

Exhibit 36: Tetanus Booster in Past 10 Years by Income Status (n = 1,903)



This analysis was for the question, "To the best of your knowledge, when did you last have a tetanus vaccination?" The analysis was restricted to respondents who answered the question and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.

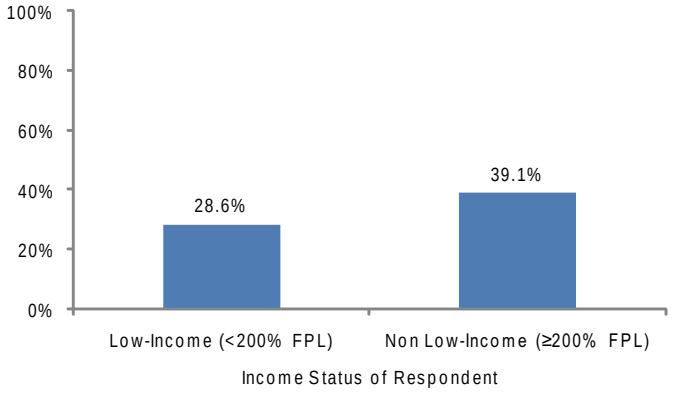
Primary Prevention: Flu Vaccination

Low-income respondents were significantly less likely to have received a flu vaccination in the past year compared to non low-income respondents.

Of the low-income respondents, 28.6% reported receiving a flu vaccination in the past year, which is significantly lower than the non low-income respondents who reported receiving a flu vaccination in the past year (39.1%) (Exhibit 37).

> The Centers for Disease Control and Prevention recommend a flu vaccination every year for all persons who want to reduce the risk of becoming ill with influenza or of transmitting influenza to others.[50]

Exhibit 37: Flu Vaccination in Past Year by Income Status (*n* = 2,145)



This analysis was for the question, "To the best of your knowledge, when did you last have a flu vaccination?" The analysis was restricted to respondents who answered the question and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.

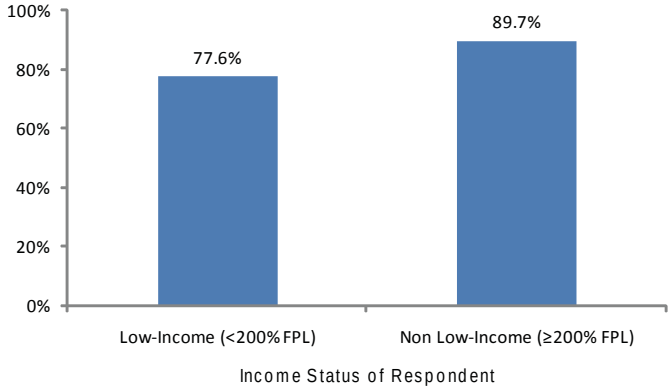
Primary and Secondary Prevention: Routine Check-up

Low-income respondents were significantly less likely to have had a routine check-up in the past 4 years compared to non low-income respondents.

Of the low-income respondents, 77.6% reported having a routine check-up in the past 4 years, which is significantly lower than the non low-income respondents who reported having a routine check-up in the past 4 years (89.7%) (Exhibit 38).

A routine check-up is an important component of health care as it provides opportunities for primary and secondary prevention.

Exhibit 38: Routine Check-up* in Past 4 Years by Income Status (*n* = 2,292)



Income Status		Routine Check-up in Past 4 Years	
	Frequency	Frequency	%
Low-Income (<200% FPL)	916	711	77.6
Non Low -Income (≥200% FPL)	1376	1234	89.7
Total	2292	1945	84.9

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
*This analysis was for the question, "How long has it been since you last visited a doctor or healthcare provider for a routine check-up? A routine check-up is a general physical exam, not an exam for a specific injury, illness or condition" The analysis is restricted to people who answered the question and provided information necessary for determining income status.

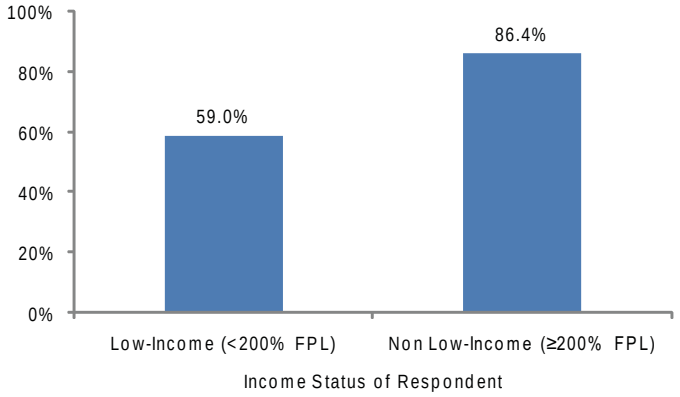
Primary and Secondary Prevention: Oral Health

Low-income respondents were significantly less likely to have had their teeth cleaned in the past 2 years compared to non low-income respondents.

Of the low-income respondents, 59% reported having their teeth cleaned in a dental office in the past 2 years, which is significantly lower than the non low-income respondents who had their teeth cleaned in the past 2 years (86.4%) (Exhibit 39). Regular dental check-ups are important as they provide opportunities for primary prevention (removing plaque and advising on good oral hygine) and secondary prevention (detecting and treating periodontal disease).

> The American Dental Association recommends regular dental check-ups and teeth cleaning at least twice a year.[51]

Exhibit 39: Teeth Cleaned in Past 2 Years by Income Status (*n* = 2,350)



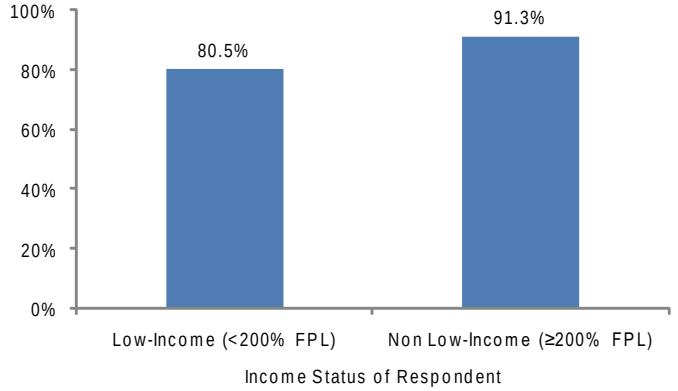
This analysis was for the question, "To the best of your knowledge, when did you last have your teeth cleaned at a Dentist's office?" The analysis was restricted to respondents who answered the question and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.

Secondary Prevention: Cervical Cancer Screening

Low-income female respondents, age 18 to 64 were significantly less likely to have received a Pap test in the past 5 years compared to non low-income female respondents.

Of the low-income women, age 18-64, 80.5% reported having a pap test in the past 5 years, which is significantly lower than the non low-income women (91.3%) (Exhibit 40).

Exhibit 40: Pap Test in Past 5 Years by Income Status (Age 18-64) (*n* = 1,243)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "To the best of your knowledge, when did you last have a Pap Smear?" The analysis was restricted to women age 18-64 who answered the question and provided information necessary for determining income status. Women who answered "don't know" or "not applicable" were excluded from the analysis.
Note: The time frame of 5 years was chosen in this analysis because the answers to this question were in time intervals that did not allow for 3 years to be isolated.

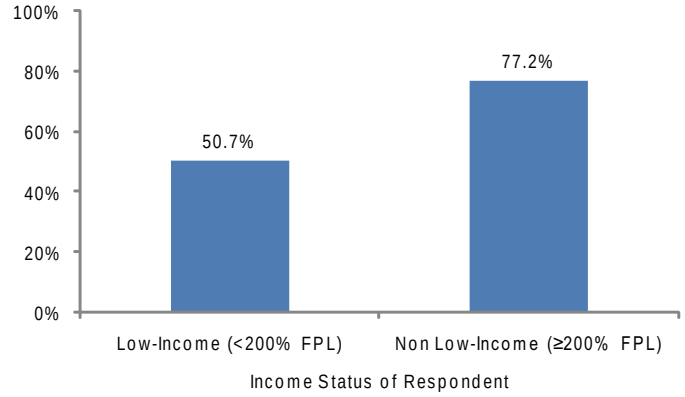
Most major U.S. medical organizations recommend a Pap test every 3 years if there is no history of abnormal Pap tests.[48]

Secondary Prevention: Breast Cancer Screening

Low-income female respondents age 40 to 64 were significantly less likely to have received a mammogram in the past 2 years compared to non low-income female respondents.

Only half (50.7%) of the low-income women, age 40-64 reported having a mammogram in the past 2 years, which is significantly lower than the non low-income women who received a mammogram in the past 2 years (77.2%) (Exhibit 41).

Exhibit 41: Mammogram in Past 2 Years by Income Status (Age 40-64) (*n* = 965)



Most major U.S. medical organizations recommend mammography screening every 1-2 years for women age 40 and older. The precise age at which to discontinue screening mammography is uncertain.[48]

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "To the best of your knowledge, when did you last have a mammogram?" The analysis was restricted to women age 40-64 who answered the question and provided information necessary for determining income status. Women who answered "don't know" or "not applicable" were excluded from the analysis.
Note: Some women use thermography as an alternate method of screening for breast cancer. In this analysis, 7 of the women who had not received a mammogram in the past 2 years had received thermography in the past 2 years- not enough to make any significant difference in the percent of women without screening.

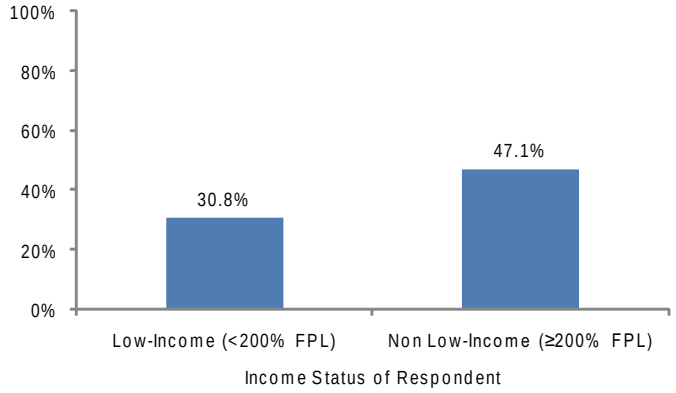
Secondary Prevention: Prostate Cancer Screening

Low-income male respondents age 50-64 were significantly less likely to have received a prostate specific antigen (PSA) test for prostate cancer in the past year compared to non low-income male respondents.

Of the low-income male respondents age 50-64 only 30.8% had received a PSA in the past year, which is significantly lower than the non low-income male respondents who received a PSA in the past year (47.1%) (Exhibit 42).

> Most major U.S. medical organizations recommend that clinicians discuss the potential benefits and possible harms of PSA screening and screen based on patient preferences.[48]

Exhibit 42: PSA in Past Year by Income Status (Age 50-64) (*n* = 371)



Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "To the best of your knowledge, when did you last have a PSA (a blood test to screen for prostate cancer)?" The analysis was restricted to men age 50-64 who answered the question and provided information necessary for determining income status. Men who answered "don't know" or "not applicable" were excluded from the analysis.

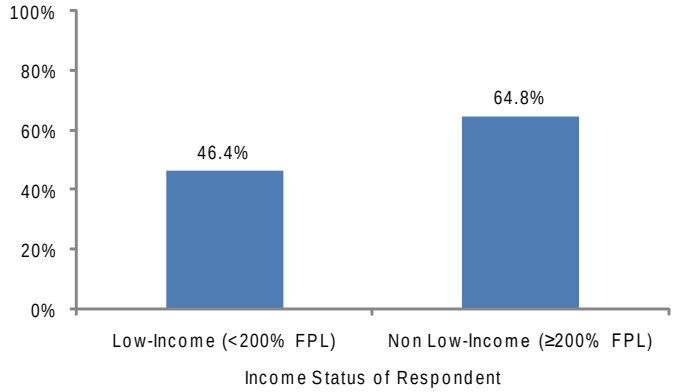
Secondary Prevention: Colorectal Cancer Screening

Low income respondents age 50-64 were significantly less likely to have had a recommended colorectal cancer screening test compared to non low- income respondents (≥200% FPL)

Of the low income respondents age 50-64 46.4% reported receiving a recommended colorectal cancer screening test, which is significantly lower than the non low-income respondents who received the recommended screening (64.8%) (Exhibit 43).

> Most major U.S. medical organizations recommend screening for colorectal cancer in men and women 50 years of age or older. Screening options include fecal occult blood test, flexible sigmoidoscopy, colonoscopy and double contrast barium enema. The interval for screening depends upon the test.[48]

Exhibit 43: Recommended Colorectal Cancer Screening Test* by Income Status (Age 50-64) (*n* = 1,069)



*This analysis was for the question, "To the best of your knowledge, when did you last have a Colonoscopy or Sigmoidoscopy (tube inserted through rectum to look for signs of cancer or other problems)?" and "To the best of your knowledge, when did you last have a Fecal Blood Test (feces/poop is put on cards and sent to lab to look for blood)" The analysis was restricted to respondents age 50-64 who answered the questions and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.
Respondents were considered to have received a recommended colorectal cancer screening test if they had a fecal occult blood test in the past year and/or a colonoscopy/sigmoidoscopy in the past 10 years.

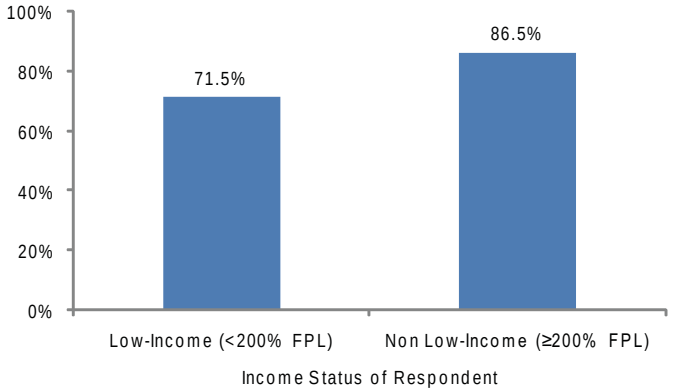
Secondary Prevention: Diabetes Screening

Low-income respondents were significantly less likely to have had their blood sugar checked in the past 5 years compared to non low-income respondents.

Of the low-income respondents over the age of 45 years, 71.5% reported having their blood sugar checked in the past 5 years, which is significantly lower than the non low-income respondents who had their blood sugar checked in the past 5 years (86.5%) (Exhibit 44).

> The American Diabetes Association recommends screening for diabetes every 3 years after age 45 in people without risk factors. [52]

Exhibit 44: Blood Sugar Checked within the Past 5 Years by Income Status (Age >45 years) (*n* = 1,510)



This analysis was for the question, "To the best of your knowledge, when did you last have your blood sugar checked?". The analysis was restricted to respondents aged 45 or older who answered the question and provided information necessary for determining income status. Respondents who indicated they had a diagnosis of diabetes or answered "don't know" or "not applicable" were excluded from the analysis.
Note: The time frame of 5 years was chosen in this analysis because the answers to this question were in time intervals that did not allow for 3 years to be isolated.

"I have to drive 2-3 hours for specialist care."
Mendocino County Resident, ≥300% FPL

"No insurance. Can't afford to go to the Dr. Our income puts us over Medi-Cal."
Mendocino County Resident, 100-199% FPL

Type of Insurance Matters

Additional findings from the Rural Health Information Survey show that having no insurance or having Medi-Cal insurance are significant barriers to accessing primary care and preventive services. Medi-Cal insured individuals rate their health more poorly and are significantly more likely to use the emergency room than uninsured or privately insured individuals. A concerning finding is that despite Medi-Cal and privately insured individuals being equally likely to have had a general check-up within the past four years, those with Medi-Cal insurance were significantly less likely to have received recommended screening for breast cancer, colorectal cancer and diabetes. This relationship exists even when accounting for different population densities, so it appears that the lower preventive screenings among Medi-Cal recipients is due to other factors rather than factors related to population density, such as distance.[53]

These findings are consistent with findings from the National Health Interview Survey, which showed that uninsured and Medicaid insured individuals were significantly less likely to receive recommended cancer screenings compared to privately insured individuals.[27] These findings highlight the fact that having insurance does not necessarily equate to having access to primary care. While the reasons for this are multiple and complex, a primary reason may be low provider participation in Medi-Cal. California's Medicaid (Medi-Cal) reimbursement rates are among the lowest in the nation and physician participation in Medi-Cal is lower than in any other state resulting in more than half of Medi-Cal insured individuals reporting difficulties finding a doctor.[54,55,56]

For a more detailed analysis and discussion about health insurance and preventive services see the CCRP Research Brief "Health Insurance Disparities in the Redwood Coast Region" available at http://www.humboldt.edu/~ccrp

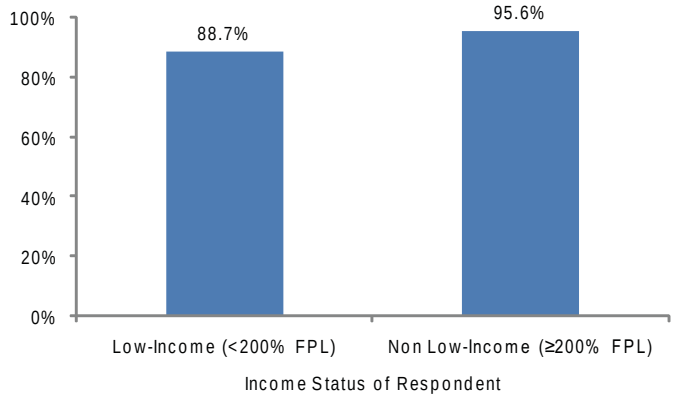
Secondary Prevention: Screening for High Blood Pressure

Low-income respondents were significantly less likely than non low-income respondents to have had their blood pressure checked in the past two years.

Of the low-income respondents, 88.7% reported having their blood pressure checked in the past 2 years, which is significantly lower than the non low-income respondents who had their blood pressure checked in the past 2 years (95.6%) (Exhibit 45).

> Most major U.S. medical organizations recommend screening for high blood pressure in adults age 18 and older at an interval of at least every 2 years.[48]

Exhibit 45: Blood Pressure Checked in the Past 2 Years by Income Status (*n* = 2,498)



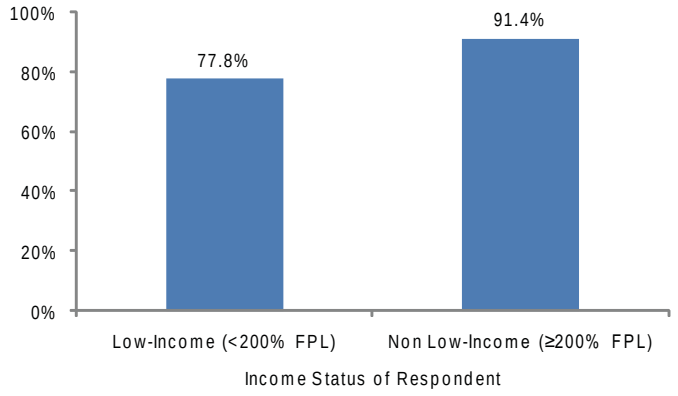
This analysis was for the question, "To the best of your knowledge, when did you last have your blood pressure checked?" The analysis was restricted to respondents who answered the question and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.

Secondary Prevention: Screening for Cholesterol Disorders

Low-income respondents were significantly less likely to have had their blood cholesterol checked in the past 5 years compared to non low-income respondents. Of the low-income respondents, 77.8% reported having their blood cholesterol checked in the past 5 years, which is significantly lower than the non low-income respondents who had their blood cholesterol checked in the past 5 years (91.4%) (Exhibit 46).

> Most major U.S. medical organizations recommend periodic screening for lipid disorders in adults. The recommended age to initiate screening and interval of screening varies depending on the organization. The American Academy of Family Physicians recommends periodic cholesterol measurement in men starting at age 35 and women starting at age 45.[48]

Exhibit 46: Blood Cholesterol Checked* within the Past 5 Years by Income Status (*n* = 1,846)



*This analysis was for the question, "To the best of your knowledge, when did you last have your blood cholesterol checked?" The analysis was restricted to women over age 45 and men over age 35 who answered the question and provided information necessary for determining income status. Respondents who answered "don't know" or "not applicable" were excluded from the analysis.

For detailed information about preventive health screenings visit www.ahrq.gov/clinic/USpstfix.htm

The U.S. Preventive Services Task Force, sponsored by the Agency for Healthcare Research and Quality, is widely considered the leading independent panel of private-sector experts in primary care prevention.

Access to Health Care: The Impact of Transportation

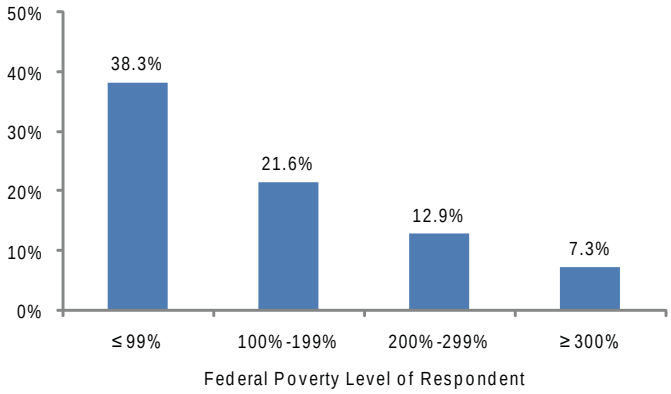
Respondents living in poverty were 5.2 times more likely to report transportation as a problem in meeting their health needs or those of their family compared to respondents living at or above 300% poverty.

Respondents living in poverty were 11 times more likely to report no vehicle in the household compared to respondents living at or above 300% poverty.

Transportation was reported as a problem in meeting health needs for 16.6% of all respondents, but this increased to 38.3% for respondents living in the poorest households (≤99% FPL). There was a significant difference between each poverty level with respect to percentage of respondents reporting transportation as a problem in meeting their health needs or those of their family (Exhibit 47). This finding suggests that as individuals move away from poverty their chance of having transportation problems deceases, which in turn improves their ability to get needed health care.

On a sub-county level, in some of the sampled communities up to 45% of the respondents reported they were unable to get needed health care in the year prior to the survey (Exhibit 48).

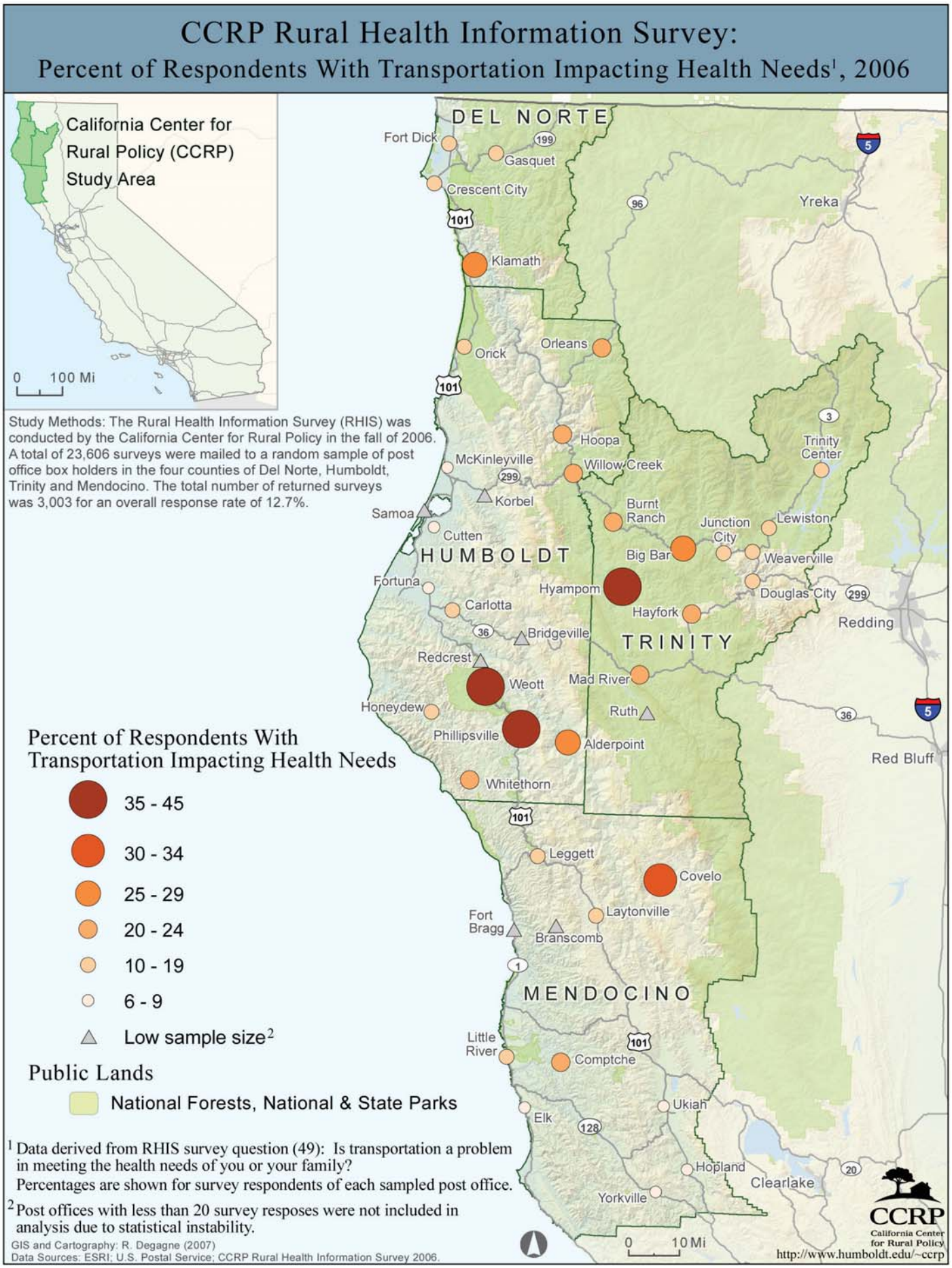
Exhibit 47: Transportation Reported as a Problem in Meeting Health Needs by Federal Poverty Level of Respondents (*n* = 2,541)



Federal Poverty Level		Yes, Transportation is a Problem	
	Frequency	Frequency	%
≤ 99%	410	157	38.3
100%-199%	638	138	21.6
200%-299%	488	63	12.9
≥ 300%	1005	73	7.3
Total	2541	431	17.0

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Is transportation a problem in meeting the health needs of you or your family?" Analysis was restricted to respondents who answered the question and provided information necessary for determining poverty level.

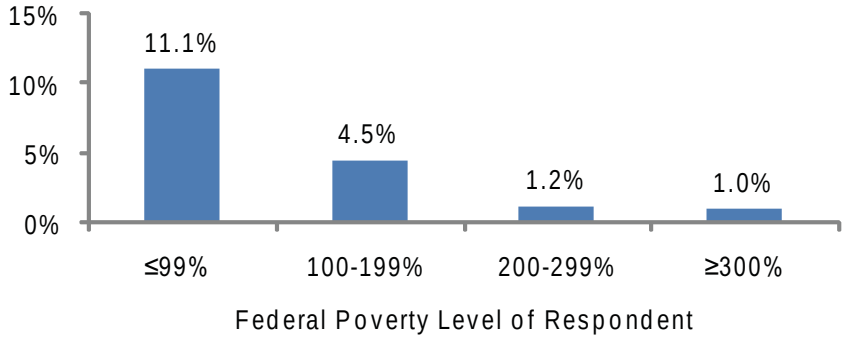
Exhibit 48


CCRP Rural Health Information Survey:
Percent of Respondents With Transportation Impacting Health Needs[1], 2006
California Center for Rural Policy (CCRP) Study Area
0 100 Mi
Study Methods: The Rural Health Information Survey (RHIS) was conducted by the California Center for Rural Policy in the fall of 2006. A total of 23,606 surveys were mailed to a random sample of post office box holders in the four counties of Del Norte, Humboldt, Trinity and Mendocino. The total number of returned surveys was 3,003 for an overall response rate of 12.7%.
DEL NORTE
HUMBOLDT
TRINITY
MENDOCINO
Fort Dick
Gasquet
Crescent City
Klamath
Orick
Orleans
Yreka
Hoopa
McKinleyville
Willow Creek
Trinity Center
Korbel
Samoa
Burnt Ranch
Junction City
Lewiston
Cutten
Big Bar
Weaverville
Fortuna
Hyampom
Douglas City
Carlotta
Hayfork
Redding
Bridgeville
Redcrest
Weott
Mad River
Honeydew
Ruth
Phillipsville
Alderpoint
Red Bluff
Whitethorn
Leggett
Covelo
Fort Bragg
Laytonville
Branscomb
Little River
Comptche
Ukiah
Elk
Hopland
Clearlake
Yorkville
Percent of Respondents With Transportation Impacting Health Needs
35 - 45
30 - 34
25 - 29
20 - 24
10 - 19
6 - 9
Low sample size[2]
Public Lands
National Forests, National & State Parks
[1] Data derived from RHIS survey question (49): Is transportation a problem in meeting the health needs of you or your family?
Percentages are shown for survey respondents of each sampled post office.
[2] Post offices with less than 20 survey resposes were not included in analysis due to statistical instability.
GIS and Cartography: R. Degagne (2007)
Data Sources: ESRI; U.S. Postal Service; CCRP Rural Health Information Survey 2006.
0 10 Mi
CCRP
California Center for Rural Policy
http://www.humboldt.edu/~ccrp

No Vehicle in the Household

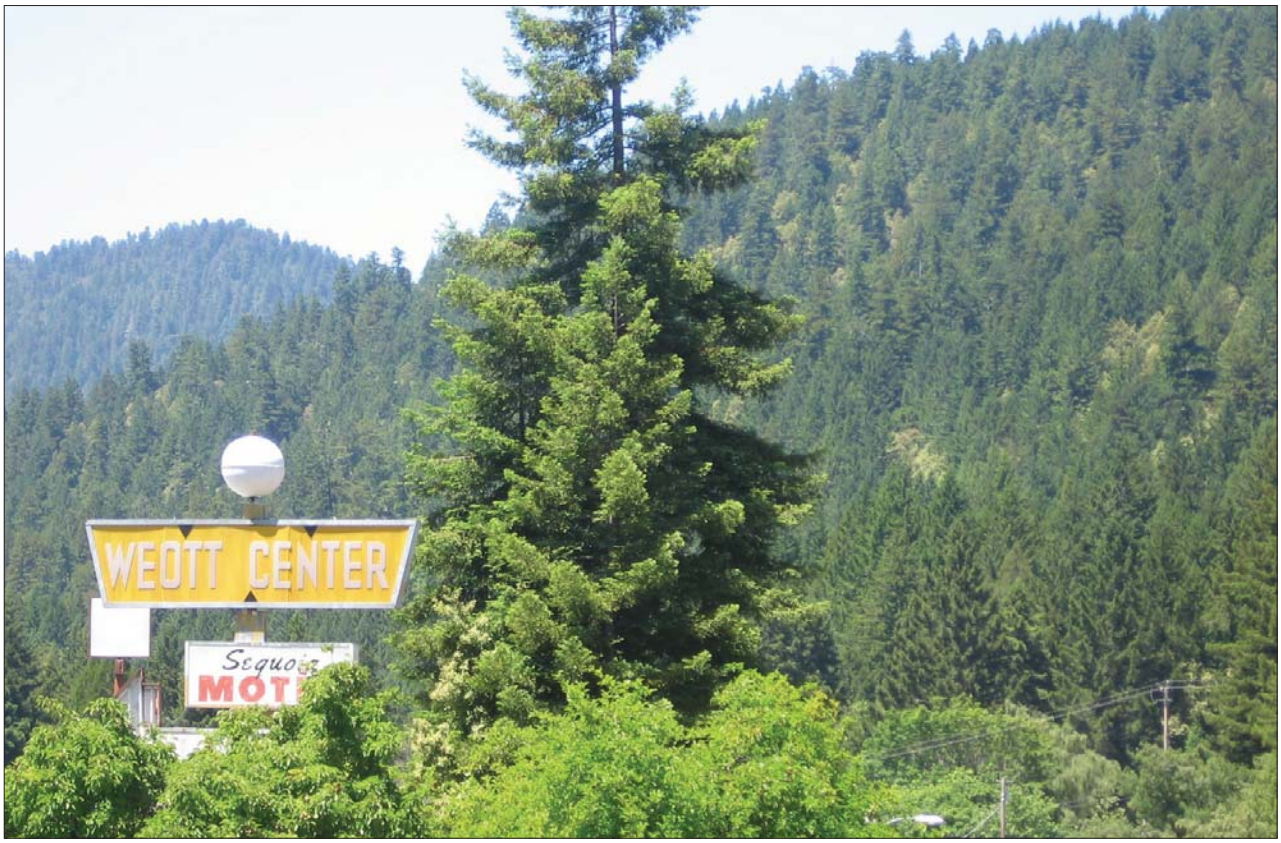
Not having a vehicle in the household was reported by 3.5% of the respondents, but this increased to 11.1% for respondents living in the poorest households. Not having a vehicle in the household differed significantly between every FPL except between the two highest levels (200%-299% FPL and ≥300% FPL) (Exhibit 49).

Exhibit 49: No Vehicle in the Household by Federal Poverty Level of Respondents (*n* = 2,536)



Federal Poverty Level		No Vehicle in Household	
	Frequency	Frequency	%
≤ 99%	406	45	11.1
100%-199%	639	29	4.5
200%-299%	488	6	1.2
≥ 300%	1003	10	1.0
Total	2536	90	3.5

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Do you or someone in your household have a vehicle?" Analysis was restricted to respondents who answered the question and provided information necessary for determining poverty level.



Household Conditions: Phones in the Home

Of the respondents living in poverty, 14.2% reported no phone in their home.

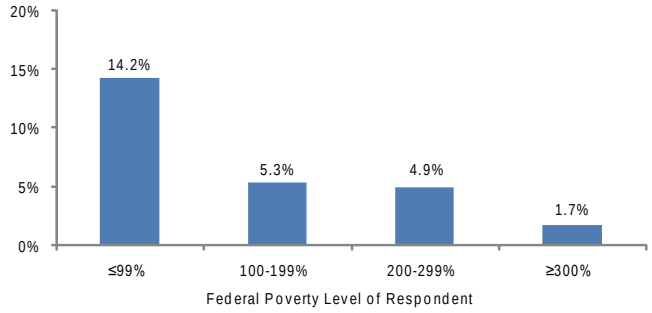
Approximately 6% of the respondents reported no phone in their home, but this increased to 14.2% for respondents living in the poorest households (≤99% FPL) (Exhibit 50).

There was a significant difference between poverty levels with respect to percentage of respondents without a phone in the home (however, the difference between respondents living in households with incomes from 100% to 199% FPL and from 200% to 299% FPL was not statistically significant).

A phone is essential for making medical appointments, coordinating medical care and calling for help during a medical emergency.

Not only is it important to consider lack of phones impacting access to health care, it is also important to consider this when conducting surveys intended to elicit responses from a broad cross section of the population. As illustrated by this survey, a phone survey has the potential of excluding segments of the population who are living in the poorest households.

Exhibit 50: No Phone in the Home by Federal Poverty Level of Respondents (*n* = 2,552)



Federal Poverty Level	No Phone in the Home		
	Frequency	Frequency	%
≤99%	415	59	14.2
100%-199%	639	34	5.3
200%-299%	489	24	4.9
≥300%	1009	17	1.7
Total	2552	134	5.3

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question "In your home, do you have a phone?"

Household Conditions: Computers and Internet in the Home

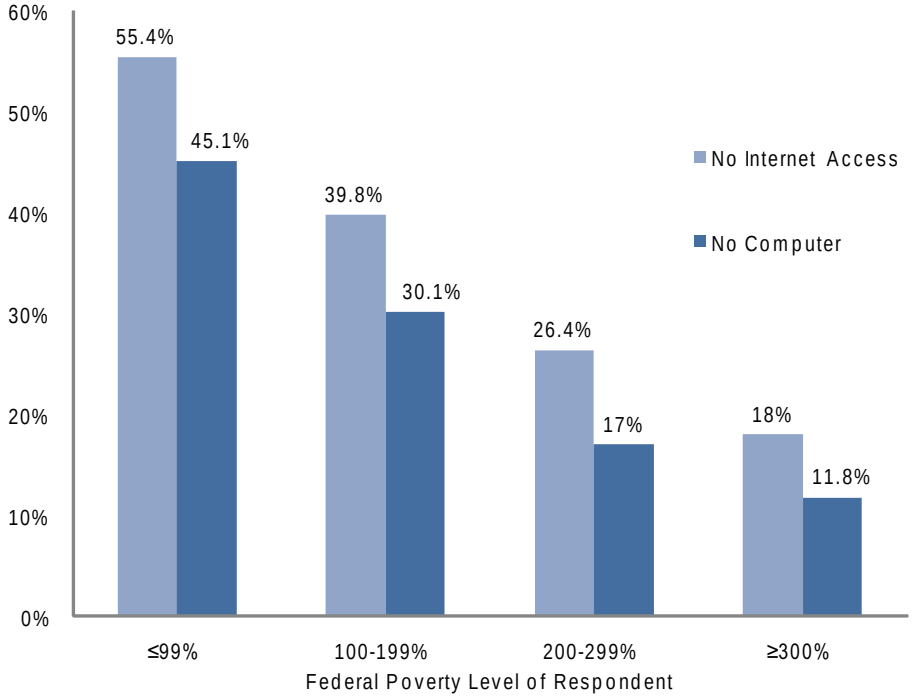
Respondents living in the poorest households were the most likely to report no Internet access or computer in their home.

Of the respondents living in poverty (≤99% FPL), 55.4% reported no Internet access and 45.1% reported no computer in their home. As the poverty level of the respondent improves, the percentage without a computer or Internet access in the home decreases. There is a statistically significant difference between each group (Exhibit 51).

On a sub-county level, in some of the sampled communities up to 70% of the respondents reported no Internet access in their home (Exhibit 52).

For a more detailed analysis and discussion about connectivity see the CCRP Research Brief "Disparities in Connectivity & Access to Health Care in the Redwood Coast Region" available at http://www.humboldt.edu/~ccrp

Exhibit 51: No Computer or Internet Access in the Home by Federal Poverty Level of Respondents

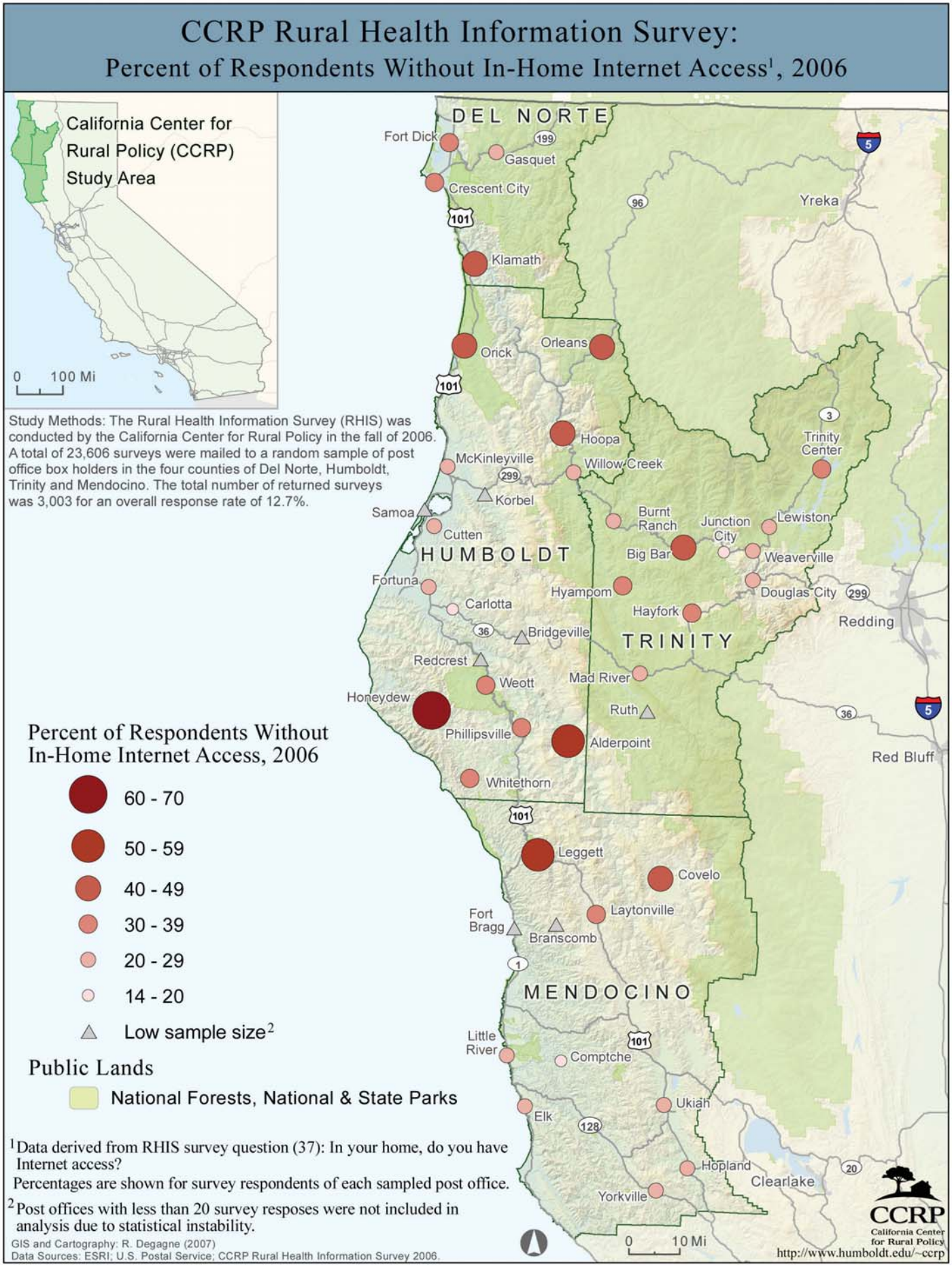


Federal Poverty Level		No Internet Access in the Home	
	Frequency	Frequency	%
≤99%	404	224	55.4
100%-199%	633	252	39.8
200%-299%	485	128	26.4
≥300%	1006	181	18.0
Total	2528	785	31.1

Federal Poverty Level		No Computer in the Home	
	Frequency	Frequency	%
≤99%	408	184	45.1
100%-199%	635	191	30.1
200%-299%	487	83	17.0
≥300%	1008	119	11.8
Total	2538	577	22.7

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the questions, "In your home, do you have a computer?" and "In your home, do you have Internet access?"

Exhibit 52

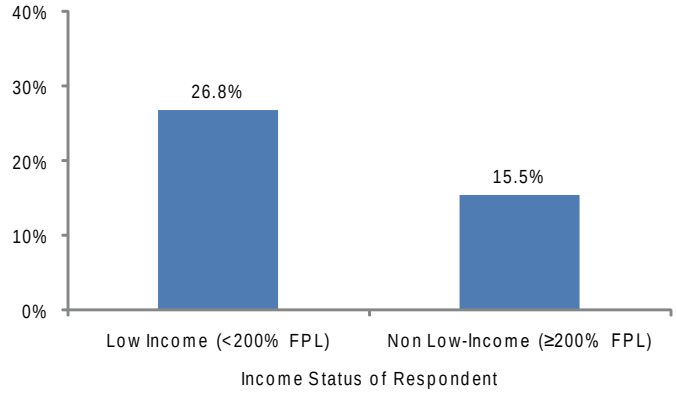

CCRP Rural Health Information Survey:
Percent of Respondents Without In-Home Internet Access[1], 2006
California Center for Rural Policy (CCRP) Study Area
0 100 Mi
Study Methods: The Rural Health Information Survey (RHIS) was conducted by the California Center for Rural Policy in the fall of 2006. A total of 23,606 surveys were mailed to a random sample of post office box holders in the four counties of Del Norte, Humboldt, Trinity and Mendocino. The total number of returned surveys was 3,003 for an overall response rate of 12.7%.
DEL NORTE
HUMBOLDT
TRINITY
MENDOCINO
Fort Dick
Gasquet
Crescent City
Klamath
Orick
Orleans
Yreka
Hoopa
Willow Creek
McKinleyville
Korbel
Samoa
Cutten
Fortuna
Carlotta
Bridgeville
Redcrest
Weott
Honeydew
Phillipsville
Alderpoint
Whitethorn
Leggett
Covelo
Laytonville
Fort Bragg
Branscomb
Little River
Comptche
Elk
Ukiah
Hopland
Clearlake
Yorkville
Trinity Center
Burnt Ranch
Junction City
Lewiston
Big Bar
Weaverville
Hyampom
Douglas City
Hayfork
Redding
Mad River
Ruth
Red Bluff
Percent of Respondents Without In-Home Internet Access, 2006
60 - 70
50 - 59
40 - 49
30 - 39
20 - 29
14 - 20
Low sample size[2]
Public Lands
National Forests, National & State Parks
[1]Data derived from RHIS survey question (37): In your home, do you have Internet access?
Percentages are shown for survey respondents of each sampled post office.
[2]Post offices with less than 20 survey resposes were not included in analysis due to statistical instability.
GIS and Cartography: R. Degagne (2007)
Data Sources: ESRI; U.S. Postal Service; CCRP Rural Health Information Survey 2006.
0 10 Mi
CCRP
California Center for Rural Policy
http://www.humboldt.edu/~ccrp

Household Conditions: Mold in the Home

Low-income respondents were significantly more likely to report mold in their home compared to non low-income respondents.

Of the low-income respondents, 26.8% reported visible mold in their home, which is significantly higher than non low-income respondents (15.5%) (Exhibit 53).

Exhibit 53: Mold in the Home by Income Status of Respondent (*n* = 2,110)



Income Status	Mold in the Home	
	Frequency	Frequency	%
Low-Income (<200% FPL)	853	229	26.8
Non Low-Income (≥200% FPL)	1257	195	15.5
Total	2110	424	20.1

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question, "Do you currently have mold in your home on an area greater than the size of a dollar bill?" Analysis was restricted to respondents who answered yes or no to the question and provided information necessary for determining income status.

Adverse Health Effects from Mold

There is substantial evidence that damp, moldy environments are unhealthy.[57,58] Damp or moldy indoor environments have been shown to be associated with a host of health problems including asthma, wheezing, cough and irritation of the eyes, nose and throat.[57,59] Research has also shown a link between dampness and mold and depression.[60]

It is estimated that approximately 4.6 million cases of asthma in the U.S. result from exposure to dampness and mold with an estimated economic cost of approximately $3.5 billion annually. [61]

Public policies and programs should aim to control moisture in both new and existing construction as there are significant health consequences that can result from dampness and mold.

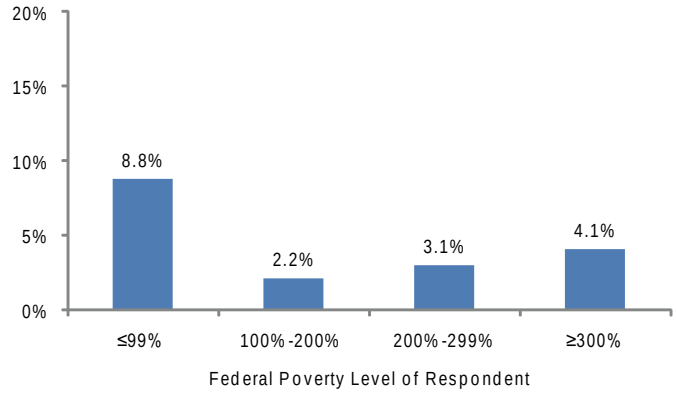
Household Conditions: Electricity in the Home

Respondents living in poverty were significantly more likely to report no source of electricity or power in their home compared to respondents not living in poverty.

Of the respondents living in poverty, 8.8% reported no source of electricity or power in their home, which is significantly higher than the other levels of poverty.

The other levels of poverty did not differ significantly from each other with respect to not having a source of electricity or power in the home (Exhibit 54).

Exhibit 54: No Source of Electricity/Power in the Home by Federal Poverty Level of Respondents (*n* = 2,527)



Federal Poverty Level		No Electricity/Power in the Home	
	Frequency	Frequency	%
≤99%	409	36	8.8
100%-199%	637	14	2.2
200%-299%	486	15	3.1
≥300%	995	41	4.1
Total	2527	106	4.2

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
This analysis was for the question "Do you have a source of electricity/power in your home?"

Implications for Programs, Policy and Research

The results from the Rural Health Information Survey show that there are numerous health disparities in the Redwood Coast Region. People who are low-income or living in poverty are clearly disadvantaged with numerous factors impacting their health and access to health care. Lack of food, transportation, insurance and health care combined with poor household conditions all contribute to poorer perceptions of general and mental health. The only variable explored where low-income respondents did not fare worse than non low-income respondents was physical activity. A possible explanation for this is a difference in employment types with low-income respondents having jobs that are more physically demanding.

Poverty is clearly a regional issue as all four counties included in this study have high poverty rates and poor health outcomes associated with being in poverty or low-income. It is concerning that poverty rates are highest among children and single women with children. As detailed in the literature review, children who grow up in poverty can have numerous long-term adverse outcomes.

The findings of this study are intended to be a catalyst for change. Designing effective policies to address identified problems requires a multi-pronged community-based approach. CCRP has been presenting the findings from the survey to community leaders, policy makers and community organizations. The presentations are followed by a discussion about potential solutions to the identified problems. The GIS maps can be useful tools to help prioritize areas with the highest need. Depending on the situation, it may be easier to develop narrowly-located policy recommendations rather than sweeping regional changes.

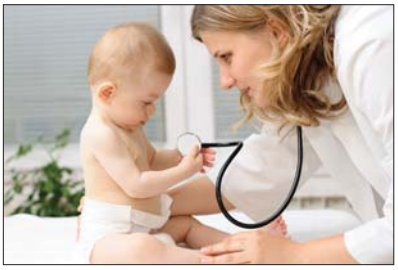
Following is a summary of these discussions and policy recommendations. These policy recommendations were developed based on a combination of the data presented in this report and the experiences and expertise of rural communities.

1) Ensure all children have coverage and a medical and dental home

While it would be ideal to have coverage in addition to a medical and dental home for everyone, the reality is that we are probably a long way off from attaining such a goal. The first step is to ensure that all children in California have coverage and a medical and dental home. Since children are still developing and growing, they have the highest risk for long-term adverse outcomes due to a lack of medical and dental care.

Ensuring all children have coverage is one piece of the puzzle. It is also important to ensure that these children have a regular source of primary care. Thus, the insurance needs to provide appropriate reimbursement so providers can afford to see these patients (see recommendation #5).

A medical and dental home provide continuous and comprehensive care, which is associated with better health outcomes and lower cost. A medical and dental home is important for preventing disease, identifying disease in early stages when it is still treatable, and managing chronic diseases. It has been estimated that if every American had a medical home, health care costs would decrease by 5.6%- a national savings of $67 billion dollars per year, with an improvement in quality of health care.[62]



Humboldt County is currently using local resources to try and insure all children in the county. Increasing the ease of enrollment and number of places enrollment can occur for public programs will help with getting more children insured (see recommendation #3).

2) Increase Broadband accessibility in rural California.

There is currently FCC money to connect all rural areas of California; however, this will be a lengthy process. The GIS maps created from the Rural Health Information Survey can be used to identify areas with low access to health care and low access to the Internet. These GIS maps can be used to prioritize areas where Broadband should be distributed first. If the technology infrastructure is built then telemedicine access points can be created, which will increase access to health care in geographically isolated locations.

Poverty is clearly a regional issue as all four counties included in this study have high poverty rates and poor health outcomes associated with being in poverty or low-income. It is concerning that poverty rates are highest among children and single women with children.

3) Increase enrollment of eligible people into existing programs

The research findings show that there is a high percentage of uninsured residents in rural California. There is also a high percentage of people in rural areas experiencing very low food security. There are public programs that are being underutilized, so it is important to increase enrollment of eligible people into existing programs. For example, it is estimated that in the Redwood Coast Region, over 32 million federal dollars are lost annually due to underutilization of nutrition programs (food stamp, school lunch and summer food programs).[63]

There is a need to increase the ease of enrollment and number of places enrollment can occur for public programs. The use of One-e-App can help meet some of these needs. This is a single electronic web-based system that provides an efficient one-stop approach to enrollment in a range of public sector health programs. Eight counties in California are currently using One-e-App: Alameda, Fresno, Los Angeles, San Francisco, San Joaquin, San Mateo, Santa Clara and Santa Cruz. Humboldt is just getting started using One-e-App to enroll kids in Healthy Kids Humboldt. Currently the number of programs available are limited, but it has potential to provide eligibility determination for Food Stamps, WIC, CHDP and others. Increasing Broadband accessibility in rural areas will increase the possibilities for use of One-e-App.

If One-e-App were widely accessible, eligibility workers could be available to the public in numerous locations such as community centers, family resource centers, food banks, free meal programs, churches, senior centers, grocery stores, laundry mats and post offices.

There is a need to reach groups that typically have low enrollment, such as the Native American and Latino populations. This requires creating safe environments in convenient locations for enrollment. Enrollment may also be increased by making people aware that they are helping their community by signing up for services as this leads to additional money flowing into the local community.

4) Allow rural hospitals to operate medical practices

California is currently one of the only states where it is illegal for hospitals to operate a medical practice. In rural areas where recruitment and retention of health care providers is critical it is worth re-thinking this law. If hospitals or health care districts could operate their own practices it could benefit the communities as rural hospitals often spend a significant amount of money recruiting physicians and they already have the infrastructure for supporting a practice. This would allow hospitals to provide primary care as well as specialty care and would allow health care providers the opportunity to practice in a rural area without having to set up a private practice. National trends show physicians are opting for salaried positions rather than operating their own practices.[64]

Del Norte County is interested in doing a pilot project to allow Sutter Coast Hospital to operate a medical practice; however, this requires the approval of legislators. If rural areas were allowed this flexibility it would allow local resources to be used more efficiently and effectively and would likely improve recruitment and retention of health care providers to areas that are typically underserved.

5) Improve Medi-Cal Payment

Access to health care in rural areas is limited for Medi-Cal recipients due to a limited number of health care providers who will see Medi-Cal recipients. This leads to over-use of the emergency departments by Medi-Cal recipients and less preventive care- a costly price for society.

California's Medicaid (Medi-Cal) reimbursement rates are among the lowest in the nation and physician participation in Medi-Cal is lower than in any other state resulting in more than half of Medi-Cal insured individuals reporting difficulties finding a doctor.[54,55,56] Federal law requires Medicaid payments be sufficient to ensure equal access with private insurance. Results from the Rural Health Information Survey and other studies clearly show that Medicaid recipients have less access to health care than privately insured individuals and are less likely to receive recommended screenings for cancer and chronic diseases.[53,27]

In July, 2008 the Department of Health Care Services (DHCS) cut Medi-Cal payment rates by 10%, however, in August, 2008, a federal court reversed the cut stating the cut would irreparably harm access to health care for nearly 7 million Californians.[65] The struggle is likely to continue as the State has appealed the ruling.

Medi-Cal is currently not paying for digital mammography. All of the local hospitals in Humboldt, except Redwood Memorial in Fortuna, have invested in the new technology of digital mammography. This means that Medi-Cal recipients must travel to Fortuna if they need a mammogram (this could be a several hour trip). Several of the hospitals have offered the use of their equipment, but the radiologists are not able to provide the service of reading the mammograms for free.

Medi-Cal payment should be updated to reflect changes in technology and the cost of practicing medicine. Improved payment for participating physicians will help increase access to care for Medi-Cal recipients.

6) Take Steps to Eliminate Poverty

Efforts should be made to eliminate or reduce the number of people living in poverty. Particular attention should be focused on reducing the number of children living in poverty, especially during a child's early years as this is the most critical time when poverty can have the worst impact.[11] Suggestions for reducing poverty in rural areas include increases in the minimum wage, expansions to the Earned Income Tax Credit (EITC), increased investments in human capital through spending on schools and improving job training, in addition to creating sustainable employment opportunities.[66]

Quotes from Respondents

"Very Limited medical providers."
Mendocino County Resident, ≥300% FPL

"No, unable to locate a local endocrinologist and other specialist."
Humboldt County Resident, ≥300% FPL

"No, because you are over looked if you have Medi-Cal."
Mendocino County Resident, ≤ 99% FPL

No insurance; income not supporting doctor/dental bills/glasses."
Trinity County Resident, 100-199% FPL

Future research could build upon the findings of the Rural Health Information Survey. Particularly, further investigation into the disparities in health insurance type and preventive screenings would help understand why these disparities exist. Are Medi-Cal recipients less likely than privately insured individuals to receive referrals for screenings or are they equally likely to receive the referrals, but have difficulties scheduling or getting to the appointment?

This research was intended to give a snapshot of rural poverty and its health impacts in the Redwood Coast Region. If there is interest from the community, CCRP can collaborate with community partners to seek funding for more in-depth research on this topic.

Next Steps

Join us online...

Please join us in an on-line discussion about poverty and health in the Redwood Coast Region.
Contribute to the living document by commenting on the research findings, sharing innovative programs and discussing policy implications. To read comments and post your own, please visit our website, www.humboldt.edu/~ccrp.

Join us in the community...

The California Center for Rural Policy will continue to share research results with the community through briefs, reports and meetings.
We plan to continue engaging the community in dialogue about potential solutions and policy recommendations to address identified problem areas.

We hope you will join us as we work together to improve health in our region.
If you would like to receive information from CCRP please contact us to get on our mailing list:
(707) 826-3400 or ccrp@humboldt.edu

Join us in collaboration...

CCRP welcomes opportunities to collaborate with community partners for more in-depth research on rural health topics.

CCRP
California Center for Rural Policy

Limitations

This study provides information about the respondents of the survey and does not necessarily describe the population in general. However, this is the largest study ever conducted in this rural region of California.

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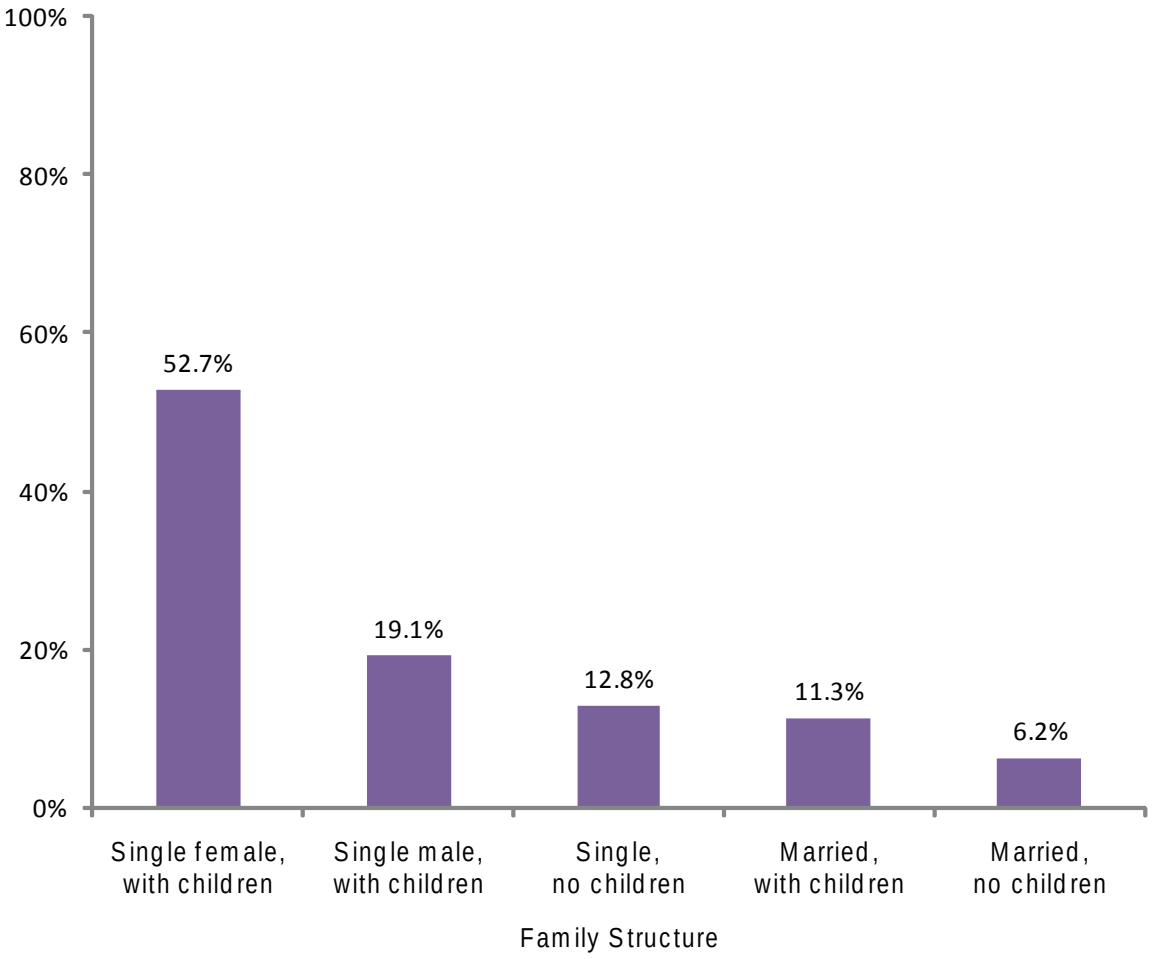
Appendix A
County Level Poverty Rates by Family Structure and Race/Ethnicity

Del Norte County

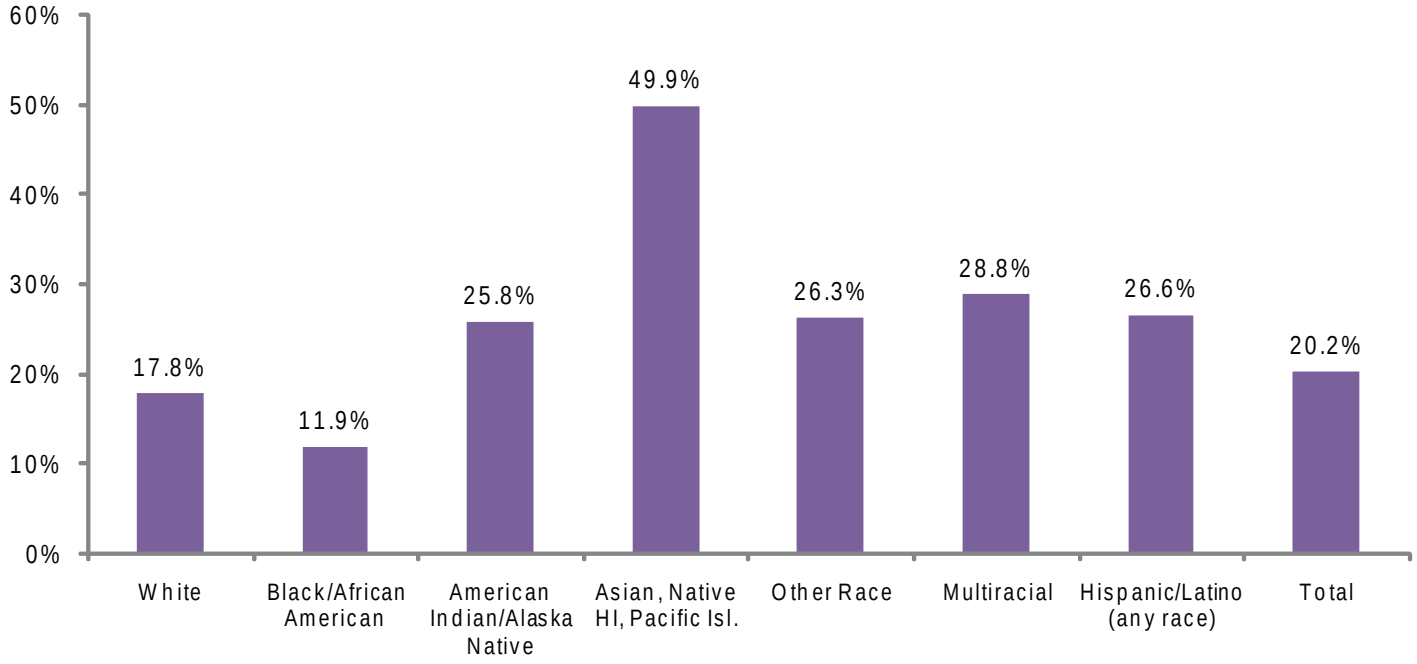
Exhibit 55: Del Norte County: Poverty Rates by Family Type, 2000



Family Structure	Total Families with Poverty Status Estimated in Del Norte County	Total Families below Poverty Level in Del Norte County	Percent Families below Poverty Level in Del Norte County
Single female , with children	988	521	52.7
Single male, with children	388	74	19.1
Single (male or female), no children	439	56	12.8
Married, with children	2079	234	11.3
Married, no children	2420	150	6.2

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3.
The equation used to determine percent below the poverty level is: Percent families below poverty level= Total families of given type below the poverty level/Total families of given type with poverty status estimated.

Exhibit 56: Del Norte County: Percent of Population below the Federal Poverty Level within each Race/Ethnicity, 2000

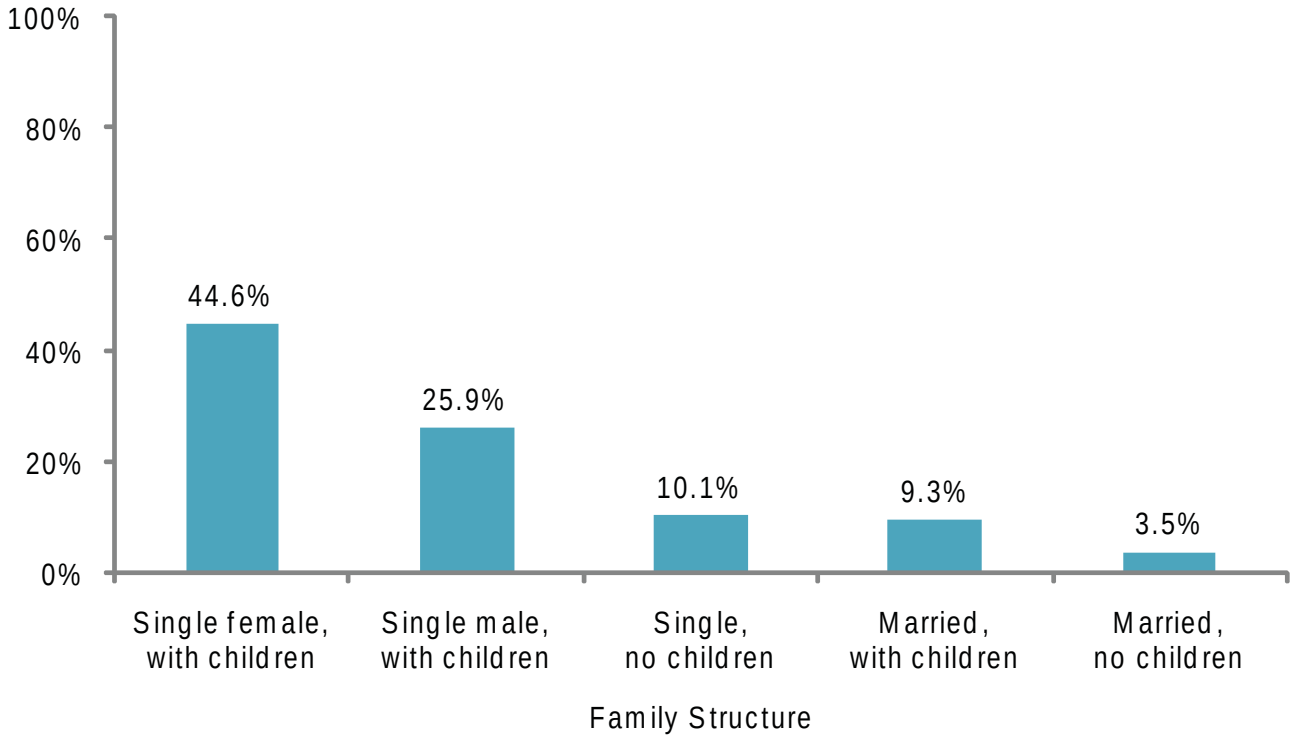


Race/Ethnicity	Total Population with Poverty Status Estimated in Del Norte County	Total Persons below Poverty Level in Del Norte County	Percent Population below Poverty Level in Del Norte County
White	19,094	3,405	17.8
Black/African American	67	8	11.9
American Indian/Alaska Native	1,451	374	25.8
Asian, Native Hawaiian and Other Pacific Islander	643	321	49.9
Other race	1,031	271	26.3
Multiracial	1,340	386	28.8
Hispanic/Latino	2,106	560	26.6
Total	23,626	4,765	20.2

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3, Tables P159A-H.
The Hispanic/Latino category is not mutually exclusive. Hispanics or Latinos are people who classified themselves in at least one of the specific Spanish, Hispanic, or Latino census categories. People of Hispanic origin may also be of any race. The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Humboldt County

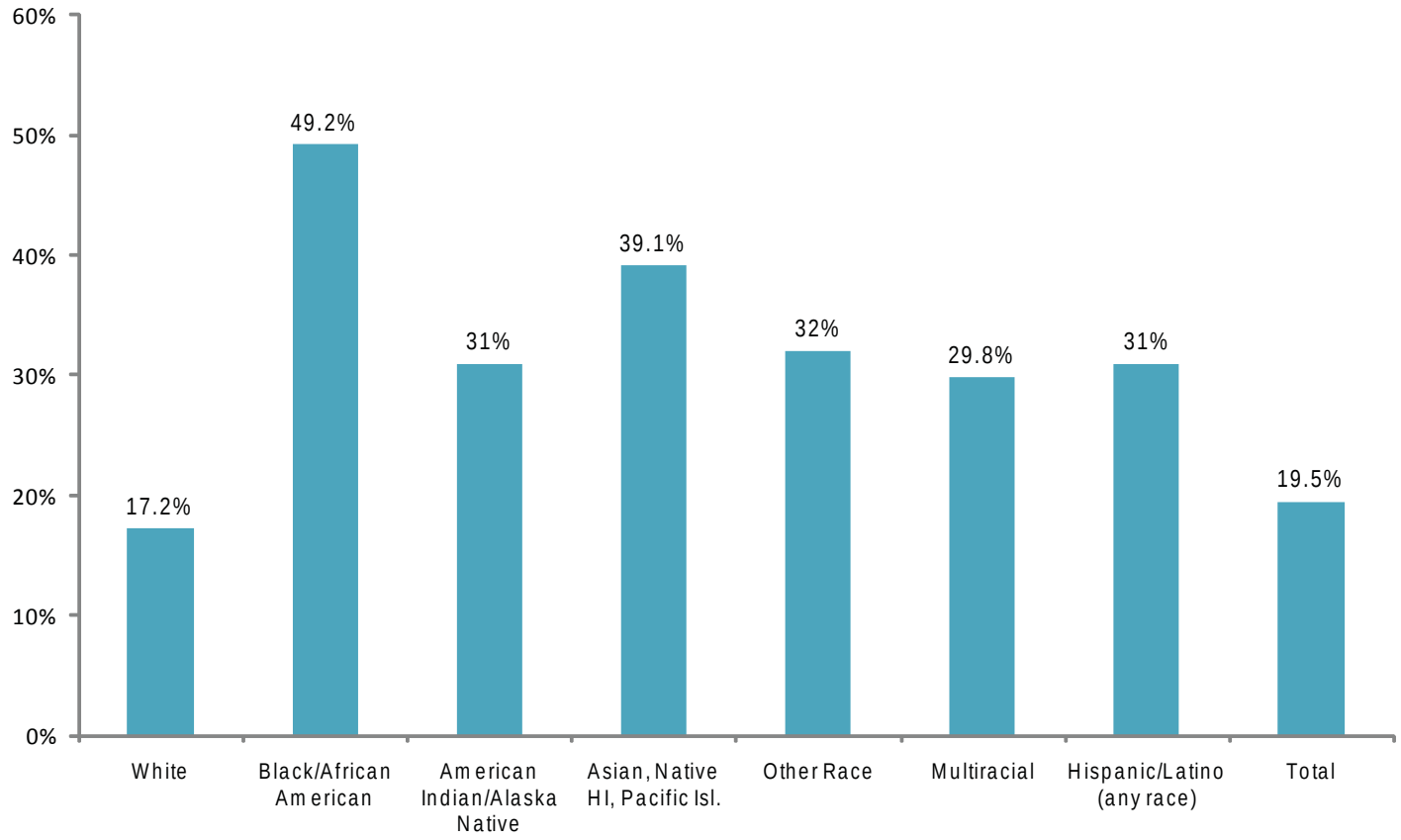
Exhibit 57: Humboldt County: Poverty Rates by Family Type, 2000



Family Structure	Total Families with Poverty Status Estimated in Humboldt County	Total Families below Poverty Level in Humboldt County	Percent Families below Poverty Level in Humboldt County
Single female , with children	4407	1954	44.6
Single male, with children	1677	434	25.9
Single (male or female), no children	2147	241	10.1
Married, with children	9844	913	9.3
Married, no children	12578	435	3.5

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3.
The equation used to determine percent below the poverty level is: Percent families below poverty level= Total families of given type below the poverty level/Total families of given type with poverty status estimated.

Exhibit 58: Humboldt County: Percent of Population below the Federal Poverty Level within each Race/Ethnicity, 2000

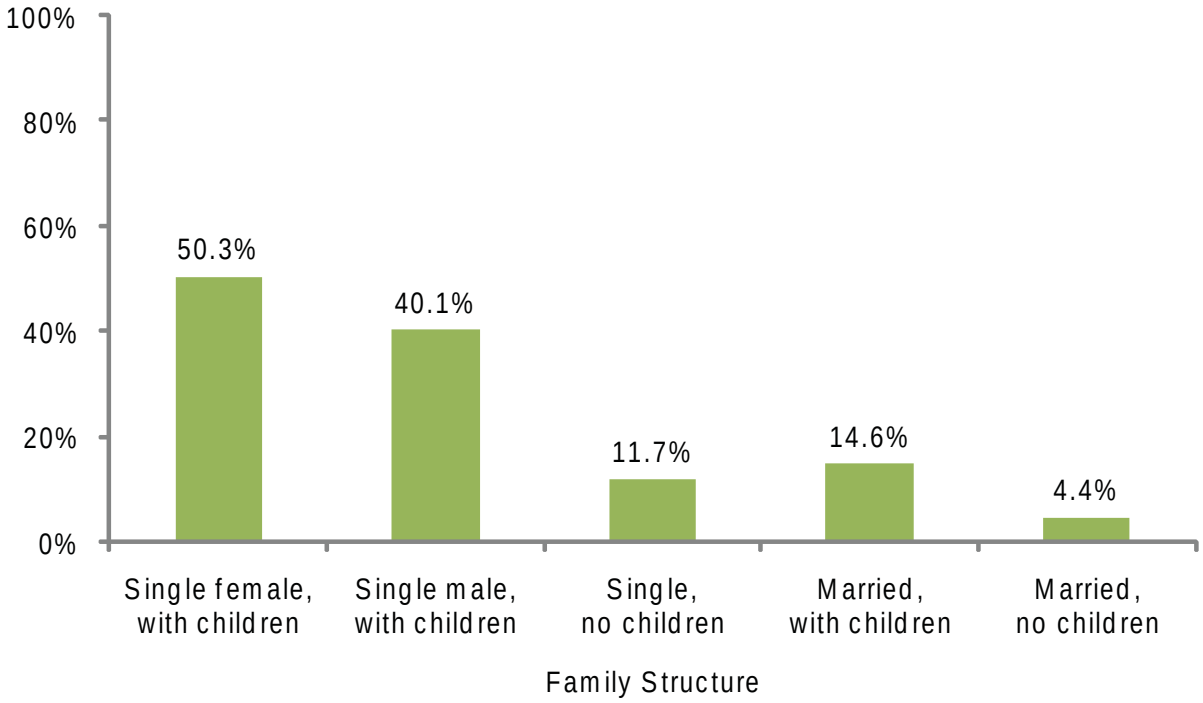


Race/Ethnicity	Total Population with Poverty Status Estimated in Humboldt County	Total Persons below Poverty Level in Humboldt County	Percent Population below Poverty Level in Humboldt County
White	104,541	18,021	17.2
Black/African American	798	393	49.2
American Indian/Alaska Native	6,931	2,147	31.0
Asian, Native Hawaiian and Other Pacific Islander	1,972	772	39.1
Other race	2,940	941	32.0
Multiracial	5,985	1,785	29.8
Hispanic/Latino	7,486	2,322	31.0
Total	123,167	24,059	19.5

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3, Tables P159A-H.
The Hispanic/Latino category is not mutually exclusive. Hispanics or Latinos are people who classified themselves in at least one of the specific Spanish, Hispanic, or Latino census categories. People of Hispanic origin may also be of any race. The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Trinity County

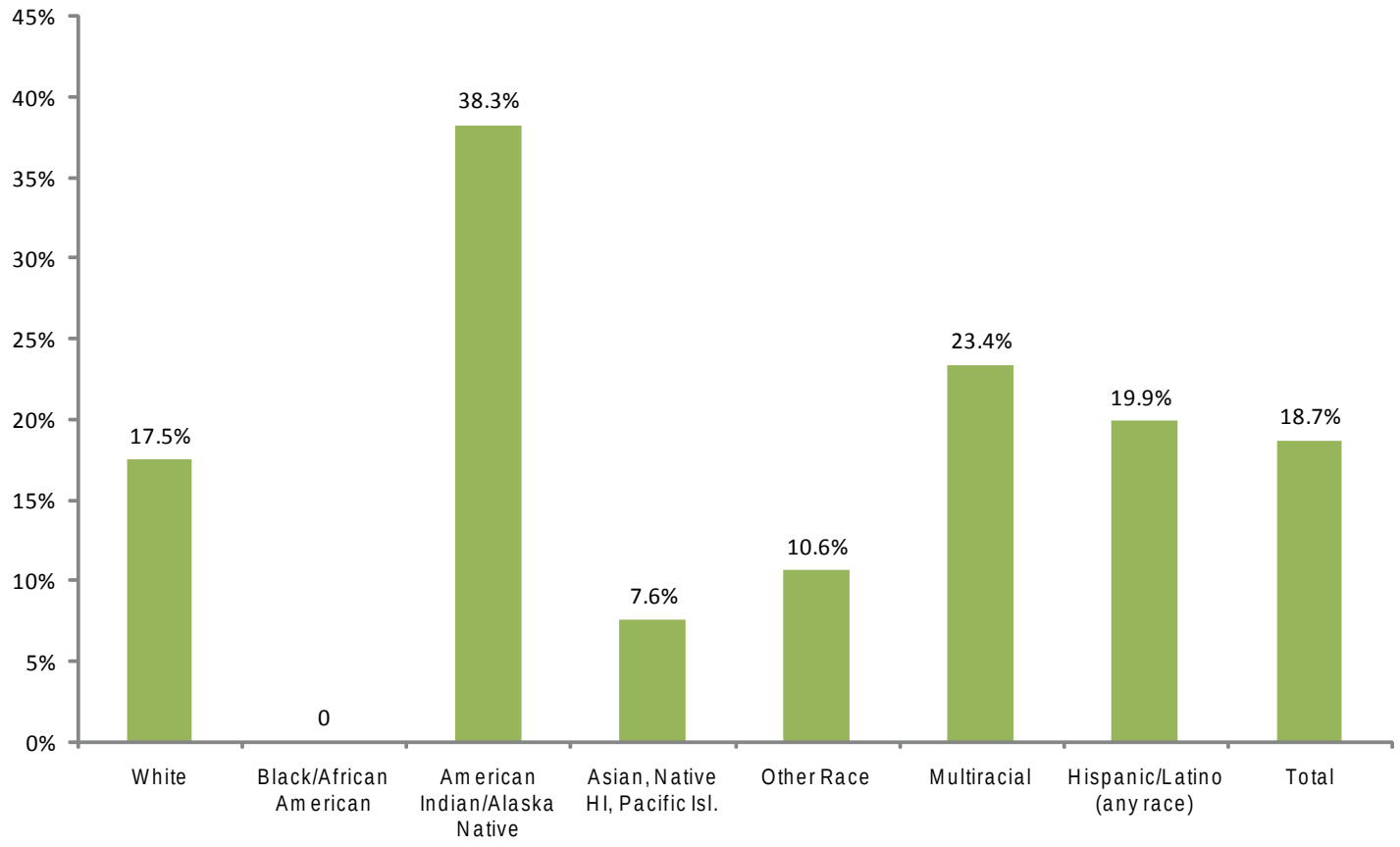
Exhibit 59: Trinity County: Poverty Rates by Family Type, 2000



Family Structure	Total Families with Poverty Status Estimated in Trinity County	Total Families below Poverty Level in Trinity County	Percent Families below Poverty Level in Trinity County
Single female , with children	378	190	50.3
Single male, with children	172	69	40.1
Single (male or female), no children	174	23	11.7
Married, with children	1007	147	14.6
Married, no children	1887	83	4.4

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3.
The equation used to determine percent below the poverty level is: Percent families below poverty level= Total families of given type below the poverty level/Total families of given type with poverty status estimated.

Exhibit 60: Trinity County: Percent of Population below the Federal Poverty Level within each Race/Ethnicity, 2000

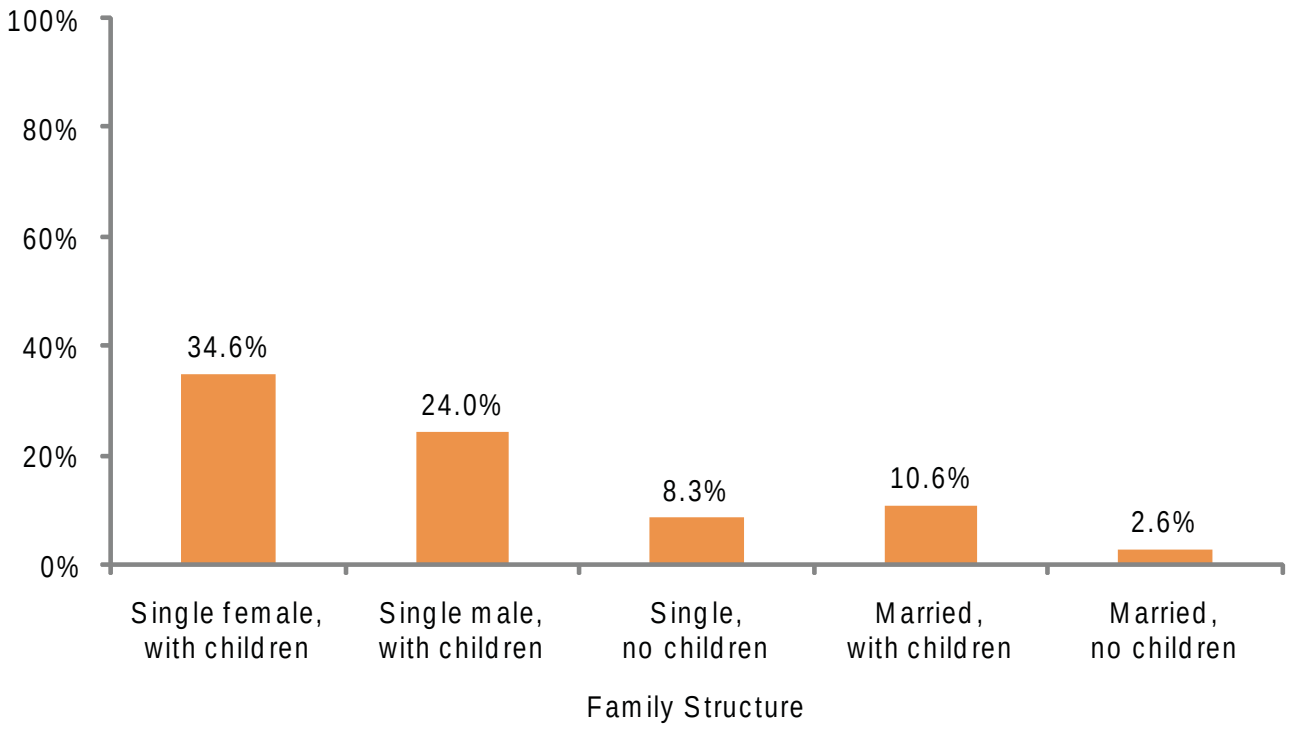


Race/Ethnicity	Total Population with Poverty Status Estimated in Trinity County	Total Persons below Poverty Level in Trinity County	Percent Population below Poverty Level in Trinity County
White	11,261	1,973	17.5
Black/African American	17	0	0
American Indian/Alaska Native	627	240	38.3
Asian, Native Hawaiian and Other Pacific Islander	66	5	7.6
Other race	160	17	10.6
Multiracial	585	137	23.4
Hispanic/Latino	437	87	19.9
Total	12,716	2,372	18.7

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3, Tables P159A-H.
The Hispanic/Latino category is not mutually exclusive. Hispanics or Latinos are people who classified themselves in at least one of the specific Spanish, Hispanic, or Latino census categories. People of Hispanic origin may also be of any race.
The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Mendocino County

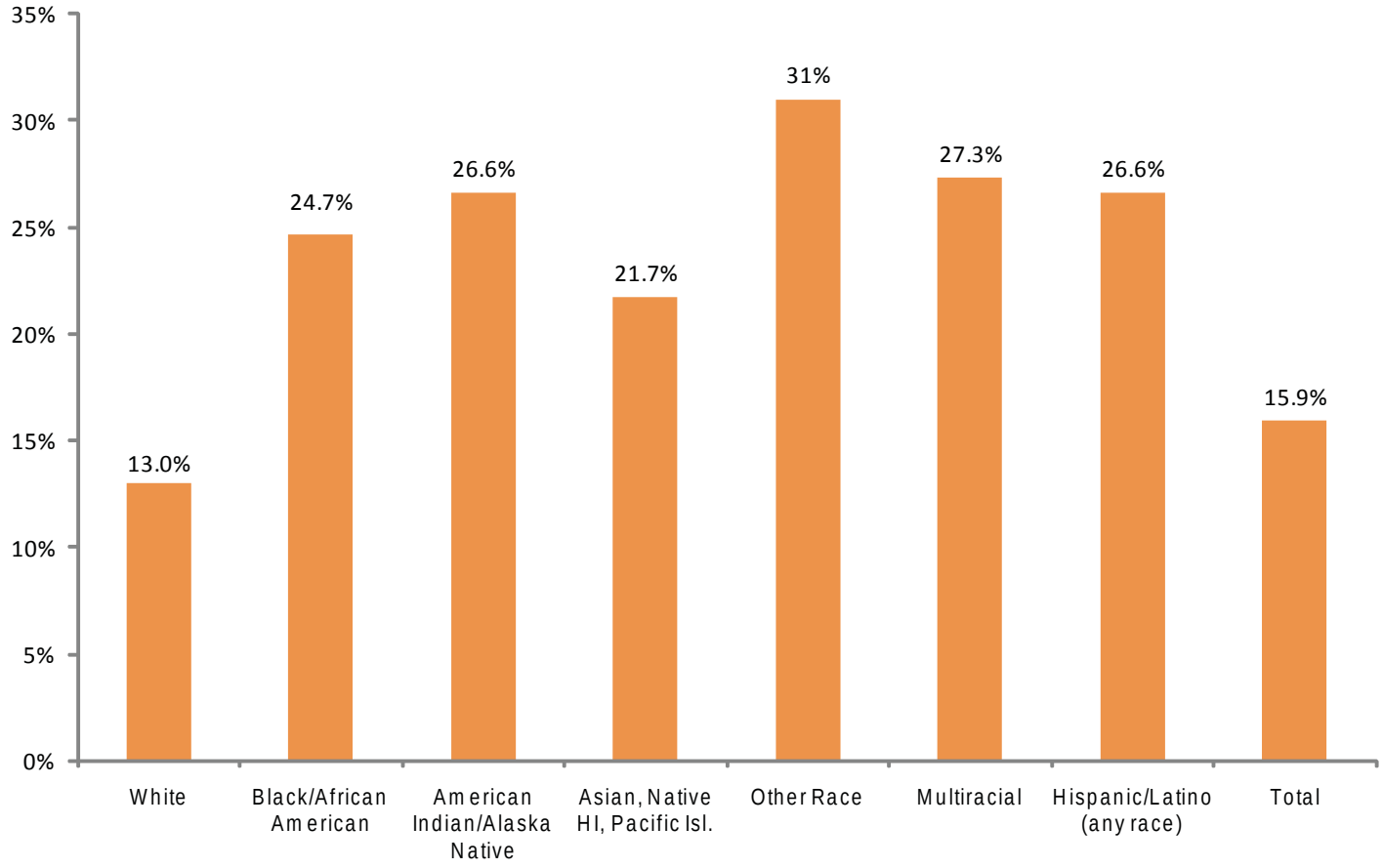
Exhibit 61: Mendocino County: Poverty Rates by Family Type, 2000



Family Structure	Total Families with Poverty Status Estimated in Mendocino County	Total Families below Poverty Level in Mendocino County	Percent Families below Poverty Level in Mendocino County
Single female , with children	2766	958	34.6
Single male, with children	1143	274	24.0
Single (male or female), no children	1332	111	8.3
Married, with children	7779	825	10.6
Married, no children	9046	234	2.6

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3.
The equation used to determine percent below the poverty level is: Percent families below poverty level= Total families of given type below the poverty level/Total families of given type with poverty status estimated.

Exhibit 62: Mendocino County: Percent of Population below the Federal Poverty Level within each Race/Ethnicity, 2000



Race/Ethnicity	Total Population with Poverty Status Estimated in Mendocino County	Total Persons below Poverty Level in Mendocino County	Percent Population below Poverty Level in Mendocino County
White	68,464	8,901	13.0
Black/African American	515	127	24.7
American Indian/Alaska Native	4,148	1,102	26.6
Asian, Native Hawaiian and Other Pacific Islander	923	200	21.7
Other race	6,912	2,146	31.0
Multiracial	3,774	1,029	27.3
Hispanic/Latino	13,768	3,665	26.6
Total	84,736	13,505	15.9

Source: California Center for Rural Policy. All numbers are estimates from U. S. Census Bureau, 2000, Summary File 3, Tables P159A-H.
The Hispanic/Latino category is not mutually exclusive. Hispanics or Latinos are people who classified themselves in at least one of the specific Spanish, Hispanic, or Latino census categories. People of Hispanic origin may also be of any race.
The equation used to determine percent below the poverty level is: Percent population below poverty level= Total persons below the poverty level/Total Population with poverty status estimated.

Appendix B
Rural Health Information Survey: Sampled Towns by Zip Code and County

Exhibit 63: Rural Health Information Survey, 2006
Respondents Who Reported Del Norte as Their Primary County of Residence

City/Town	Zip Code	Frequency	Percent of Del Norte Sample
Crescent City	95531	236	56.1
Klamath	95548	77	18.3
Gasquet	95543	63	15.0
Fort Dick	95538	38	9.0
Lewiston	96052*	1	0.2
Orick	95555*	1	0.2
Samoa	95564*	1	0.2
Weaverville	96093*	1	0.2
Willow Creek	95573*	1	0.2
Missing Zip Code	NA	2	0.5
Total	NA	421	99.9

*Note: these are the zip codes to which the surveys were sent. They were returned by individuals who indicated that Del Norte County is their primary county of residence.
Total percent does not equal 100 due to rounding.

Exhibit 64: Rural Health Information Survey, 2006
Respondents Who Reported Humboldt as Their Primary County of Residence

City/Town	Zip Code	Frequency	Percent of Humboldt Sample
Willow Creek	95573	144	16.4
McKinleyville	95519	114	13.0
Fortuna	95540	100	11.4
Hoopa	95546	90	10.2
Whitethorn	95589	82	9.3
Eureka (Cutten)	95534	68	7.7
Orleans	95556	59	6.7
Orick	95555	38	4.3
Carlotta	95528	29	3.3
Weott	95571	27	3.1
Alderpoint	95511	24	2.7
Honeydew	95545	21	2.4
Phillipsville	95559	21	2.4
Samoa	95564	17	1.9
Korbel	95550	13	1.5
Redcrest	95569	10	1.1
Bridgeville	955262	10	1.1
Klamath	95548*	4	0.5
Mad River	95552*	2	0.2
Fort Bragg	95488*	1	0.1
Leggett	95585*	1	0.1
Laytonville	95454*	1	0.1
Gasquet	95543*	1	0.1
Weaverville	96093*	1	0.1
ZIP Code stamp unreadable	NA	2	0.2
Total	NA	880	99.9

*Note: these are the zip codes to which the surveys were sent. They were returned by individuals who indicated that Humboldt County is their primary county of residence.
Total percent does not equal 100 due to rounding.

Exhibit 65: Rural Health Information Survey, 2006
Respondents Who Reported Trinity as Their Primary County of Residence

City/Town	ZIP Code	Frequency	Percent of Trinity Sample
Weaverville	96093	349	37.2
Hayfork	96041	205	21.8
Lewiston	96052	76	8.1
Douglas City	96024	71	7.6
Junction City	96048	62	6.6
Trinity Center	96091	43	4.6
Burnt Ranch	95527	28	3.0
Mad River	95552	27	2.9
Big Bar	96010	22	2.3
Hyampom	96046	22	2.3
Ruth	955261	6	0.6
Bridgeville	955262*	5	0.5
Willow Creek	95573*	19	2.0
Alderpoint	95511*	2	0.2
Cutten	95534*	1	0.1
Fortuna	95540*	1	0.1
ZIP Code stamp unreadable	NA	1	0.1
Total	NA	940	100

*Note: these are the zip codes to which the surveys were sent. They were returned by individuals who indicated that Trinity County is their primary county of residence.

Exhibit 66: Rural Health Information Survey, 2006
Respondents Who Reported Mendocino as Their Primary County of Residence

City/Town	Zip Code	Frequency	Percent of Mendocino Sample
Ukiah	95482	193	27.4
Laytonville	95454	151	21.4
Covelo	95428	63	8.9
Comptche	95427	54	7.7
Little River	95456	53	7.5
Elk	95432	44	6.3
Hopland	95449	40	5.7
Leggett	95585	34	4.8
Yorkville	95494	31	4.4
Laytonville-Branscomb	95417	12	1.7
Fort Bragg	95488	9	1.3
Alderpoint	95511*	1	0.1
Crescent City	95531*	1	0.1
Mad River	95552*	1	0.1
Orleans	95556*	1	0.1
Whitethorn	95589*	16	2.3
Missing ZIP Code	NA	1	0.1
Total	NA	705	100.1

*Note: these are the zip codes to which the surveys were sent. They were returned by individuals who indicated that Mendocino County is their primary county of residence.
Total percent does not equal 100 due to rounding.

Appendix C
Rural Health Information Survey Sample Demographics

Entire Sample

Exhibit 67: Education Level and Employment Status of Respondents

Highest Level of Education	**Frequency**	**Percent**
No High School	122	4.2
GED/ High School Certificate	94	3.2
High School Graduate	344	11.8
Vocational Training	117	4.0
Some College	1049	35.8
College Graduate	581	19.8
Graduate/Professional Training	620	21.2
Total	2927	100
Employment Status		
Company/Business/Agency	985	33.6
Homemaker	143	4.9
Self-Employed	588	20.1
Unemployed	134	4.5
Retired	830	28.3
Disabled	250	8.5
Total	2930	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 68: County of Residence, Length of Time Living in Local Area, and Type of Dwelling

What County do you live in?	Frequency	Percent
Del Norte	421	14.3
Humboldt	880	29.8
Trinity	940	31.9
Mendocino	705	23.9
More than one of the above counties	4	0.1
Total	2950	100
How long have you lived in the local area? (mean = 20.2)		
< 5 years	495	16.9
5-9 years	423	14.5
10-19 years	639	21.9
20-29 years	555	19.0
30-39 years	458	15.7
40-49	145	5.0
≥ 50 years	207	7.1
Total	2922	100
What type of dwelling do you live in?		
House	2219	75.8
Duplex	54	1.8
Mobile Home/ Trailer	493	16.8
Building w/ 3 or more units	81	2.8
Other	81	2.8
Total	2928	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 69: Total Number of People Living in the Household and Total Number of Children Under the Age of 18 Living in the Household

Total number of people living in household *(mean = 2.2)*	Frequency	Percent
1 person	821	28.1
2 people	1347	46.1
3-4 people	605	20.7
≥ 5 people	150	5.1
Total	2923	100
Total number of children under 18 in the household (mean = 0.5)		
No children under 18	2216	75.3
1 child	331	11.2
2-4 children	367	12.5
≥ 5 children	29	1
Total	2950	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Del Norte County Respondents (n = 421)

Exhibit 70: Del Norte County Respondents: Ethnicity, Gender, Age and Language

Characteristics	Frequency	Percent
Ethnicity		
White	359	85.9
African American	3	0.7
Latino/Latina	6	1.4
Asian	2	0.5
Native American	19	4.5
Multiracial	22	5.3
Other	7	1.7
Total	418	100
Gender		
Female	269	63.9
Male	151	35.9
Other	1	0.2
Total	421	100
Age		
18-29	17	4.1
30-39	31	7.4
40-49	70	16.8
50-59	141	33.8
60-69	101	24.2
70-79	40	9.6
≥ 80	17	4.1
Total	417	100
Languages spoken at home:		
English	420	99.8
Spanish	10	2.4
Asian Language	1	0.2
Native American	9	2.1
Other	**8**	**1.9**

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 71: Del Norte County Respondents: Poverty Level, Education Level and Employment Status

Federal Poverty Level (FPL)*	Frequency	Percent
≤99% FPL	63	17.7
100%-199% FPL	81	22.8
200%-299% FPL	60	16.9
≥300% FPL	151	42.5
Total	355	99.9
Highest Level of Education		
No High School	24	5.7
GED/ High School Certificate	19	4.5
High School Graduate	56	13.3
Vocational Training	19	4.5
Some College	152	36.2
College Graduate	63	15.0
Graduate/Professional Training	87	20.7
Total	420	99.9
Employment Status		
Company/Business/Agency	167	39.8
Homemaker	22	5.2
Self-Employed	39	9.3
Unemployed	19	4.5
Laid-off but looking	5	1.2
Retired	120	28.6
Disabled	46	11.0
Student	1	0.2
Total	419	99.8

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.
*Poverty Thresholds obtained from U.S. Census Bureau, “Poverty Thresholds 2006” http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Exhibit 72: Del Norte County Respondents: Length of Time Respondent has Lived in Local Area and Type of Dwelling

How long have you lived in the local area?	Frequency	Percent
< 5 years	90	21.7
5-9 years	66	15.9
10-19 years	103	24.8
20-29 years	52	12.5
30-39 years	47	11.3
40-49	25	6.0
≥ 50 years	32	7.7
Total	415	99.9
What type of dwelling do you live in?		
House	272	64.8
Duplex	13	3.1
Mobile Home/ Trailer	115	27.4
Building w/ 3 or more units	16	3.8
Other	4	1.0
Total	420	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 73: Del Norte County Respondents: Total Number of People Living in the Household and Total Number of Children Under the Age of 18 Living in the Household

Total number of people living in household	Frequency	Percent
1 person	120	29.0
2 people	186	44.9
3-4 people	77	18.6
≥ 5 people	31	7.5
Total	414	100
Total number of children under 18 in the household		
No children under 18	304	72.4
1 child	53	12.6
2-4 children	57	13.6
≥ 5 children	6	1.4
Total	420	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.
*Poverty Thresholds obtained from U.S. Census Bureau, “Poverty Thresholds 2006” http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Humboldt County Respondents (n = 880)

Exhibit 74: Humboldt County Respondents: Ethnicity, Gender, Age and Language

Characteristics	Frequency	Percent
Ethnicity		
White	677	78.2
African American	3	0.3
Latino/Latina	9	1.0
Asian	2	0.2
Native American	84	9.7
Multiracial	66	7.6
Other	25	2.9
Total	866	99.9
Gender		
Female	580	66.5
Male	292	33.5
Total	872	100
Age		
18-29	74	8.6
30-39	95	11.1
40-49	158	18.4
50-59	247	28.8
60-69	178	20.7
70-79	76	8.8
≥ 80	31	3.6
Total	859	100
Languages spoken at home		
English	867	99.2
Spanish	22	2.5
Asian Language	3	0.3
Native American	19	2.2
Other	25	2.9

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 75: Humboldt County Respondents: Poverty Level, Education Level and Employment Status

Federal Poverty Level (FPL)*	Frequency	Percent
≤99% FPL	129	16.7
100%-199% FPL	212	27.5
200%-299% FPL	153	19.8
≥300% FPL	277	35.9
Total	771	99.9
Highest Level of Education		
No High School	40	4.6
GED/ High School Certificate	35	4.0
High School Graduate	116	13.3
Vocational Training	36	4.1
Some College	323	37.0
College Graduate	166	19.0
Graduate/Professional Training	156	17.9
Total	872	99.9
Employment Status		
Company/Business/Agency	289	33.2
Homemaker	60	6.9
Self-Employed	199	22.9
Unemployed	32	3.7
Laid-off but looking	9	1.0
Retired	199	22.9
Disabled	76	8.7
Student	6	0.7
Total	870	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.
*Poverty Thresholds obtained from U.S. Census Bureau, "Poverty Thresholds 2006" http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Exhibit 76: Humboldt County Respondents: Length of Time Living in the Local Area and Type of Dwelling

How long have you lived in the local area?	Frequency	Percent
< 5 years	132	15.2
5-9 years	114	13.1
10-19 years	170	19.6
20-29 years	150	17.3
30-39 years	147	16.9
40-49	51	5.9
≥ 50 years	104	12.0
Total	868	100
What type of dwelling do you live in?		
House	655	75.5
Duplex	25	2.9
Mobile Home/ Trailer	132	15.2
Building w/ 3 or more units	28	3.2
Other	28	3.2
Total	868	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 77: Humboldt County Respondents:Number of People Living in the Household and Number of Children Under the Age of 18 Living in the Household

Total number of people living in household	Frequency	Percent
1 person	233	26.8
2 people	371	42.6
3-4 people	212	24.4
≥ 5 people	54	6.2
Total	870	100
Total number of children under 18 in the household		
No children under 18	627	71.3
1 child	114	13.0
2-4 children	129	14.7
≥ 5 children	10	1.1
Total	880	100.1

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Trinity County Respondents (n = 940)

Exhibit 78: Trinity County Respondents:Ethnicity, Gender, Age and Language

Characteristics	Frequency	Percent
Ethnicity		
White	821	88.0
African American	0	0
Latino/Latina	11	1.2
Asian	4	0.4
Native American	24	2.6
Multiracial	42	4.5
Other	31	3.3
Total	933	100
Gender		
Female	578	61.7
Male	358	38.2
Other	1	0.1
Total	937	100
Age		
18-29	33	3.6
30-39	46	5.0
40-49	128	14.0
50-59	287	31.3
60-69	232	25.3
70-79	133	14.5
≥ 80	57	6.2
Total	916	99.9
Languages spoken at home		
English	928	98.8
Spanish	36	3.8
Asian Language	7	0.7
Native American	6	0.6
Other	20	2.1

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 79: Trinity County Respondents:Poverty Level, Education Level and Employment Status

Federal Poverty Level (FPL)*	Frequency	Percent
≤99% FPL	116	14.4
100%-199% FPL	191	23.7
200%-299% FPL	162	20.1
≥300% FPL	336	41.7
Total	805	99.9
Highest Level of Education		
No High School	40	4.3
GED/ High School Certificate	23	2.5
High School Graduate	108	11.6
Vocational Training	36	3.9
Some College	343	36.8
College Graduate	169	18.1
Graduate/Professional Training	213	22.9
Total	932	100
Employment Status		
Company/Business/Agency	279	29.9
Homemaker	35	3.7
Self-Employed	138	14.8
Unemployed	20	2.1
Laid-off but looking	6	0.6
Retired	362	38.8
Disabled	91	9.7
Student	3	0.3
Total	934	99.9

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.
*Poverty Thresholds obtained from U.S. Census Bureau, "Poverty Thresholds 2006" http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Exhibit 80: Trinity County Respondents: Length of Time Respondent has Lived in Local Area and Type of Dwelling

How long have you lived in the local area?	Frequency	Percent
< 5 years	167	17.9
5-9 years	154	16.5
10-19 years	210	22.5
20-29 years	194	20.8
30-39 years	131	14.0
40-49	42	4.5
≥ 50 years	36	3.9
Total	934	100
What type of dwelling do you live in?		
House	738	78.8
Duplex	9	1.0
Mobile Home/ Trailer	149	15.9
Building w/ 3 or more units	18	1.9
Other	22	2.4
Total	936	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.

Exhibit 81: Trinity County Respondents: Total Number of People Living in the Household and Total Number of Children Under the Age of 18 Living in the Household

Total number of people living in household	Frequency	Percent
1 person	245	26.3
2 people	484	51.9
3-4 people	173	18.5
≥ 5 people	31	3.3
Total	933	100
Total number of children under 18 in the household		
No children under 18	748	79.9
1 child	89	9.5
2-4 children	92	9.8
≥ 5 children	9	1.0
Total	938	100.2

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Mendocino County Respondents (n = 705)

Exhibit 82: Mendocino County Respondents: Ethnicity, Gender, Age and Language

Characteristics	Frequency	Percent
Ethnicity		
White	598	85.4
African American	1	0.1
Latino/Latina	8	1.1
Asian	5	0.7
Native American	21	3
Multiracial	43	6.1
Other	24	3.4
Total	700	99.8
Gender		
Female	453	64.4
Male	250	35.6
Total	703	100
Age		
18-29	49	7.1
30-39	68	9.8
40-49	98	14.1
50-59	253	36.5
60-69	144	20.7
70-79	61	8.8
≥ 80	21	3
Total	694	100
Languages spoken at home:		
English	691	98.2
Spanish	47	6.7
Asian Language	7	0.8
Native American	7	1
Other	24	3.4

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 83: Mendocino County Respondents: Poverty Level, Education Level and Employment Status

Federal Poverty Level (FPL)*	Frequency	Percent
≤99% FPL	106	16.9
100%-199% FPL	160	25.6
200%-299% FPL	115	18.4
≥300% FPL	245	39.1
Total	626	100
Highest Level of Education		
No High School	18	2.6
GED/ High School Certificate	16	2.3
High School Graduate	64	9.2
Vocational Training	26	3.7
Some College	228	32.6
College Graduate	183	26.1
Graduate/Professional Training	164	23.5
Total	699	100
Employment Status		
Company/Business/Agency	248	35.3
Homemaker	26	3.7
Self-Employed	211	30.0
Unemployed	19	2.7
Laid-off but looking	9	1.3
Retired	149	21.2
Disabled	36	5.1
Student	5	0.7
Total	703	100

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.
*Poverty Thresholds obtained from U.S. Census Bureau, “Poverty Thresholds 2006” http://www.census.gov/hhes/www/poverty/threshld/thresh06.html

Exhibit 84: Mendocino County Respondents: Length of Time Living in the Local Area and Type of Dwelling

How long have you lived in the local area?	Frequency	Percent
< 5 years	106	15.1
5-9 years	89	12.7
10-19 years	156	22.3
20-29 years	159	22.7
30-39 years	130	18.5
40-49	26	3.7
≥ 50 years	35	5.0
Total	**701**	**100**
What type of dwelling do you live in?		
House	551	78.7
Duplex	7	1.0
Mobile Home/ Trailer	96	13.7
Building w/ 3 or more units	19	2.7
Other	27	3.9
Total	**700**	**100**

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Exhibit 85: Mendocino County Respondents: Total Number of People Living in the Household and Total Number of Children Under the Age of 18 Living in the Household

Total number of people living in household (M = 2.2)	Frequency	Percent
1 person	221	31.5
2 people	304	43.3
3-4 people	143	20.4
≥ 5 people	34	4.8
Total	**702**	**100**
Total number of children under 18 in the household		
No children under 18	533	76.0
1 child	75	10.7
2-4 children	89	12.7
≥ 5 children	4	0.6
Total	**701**	**100**

Source: Rural Health Information Survey, 2006, California Center for Rural Policy
Percentages are based on total number of respondents who provided information for a given variable.
Total percentage may not equal 100 due to rounding.

Appendix D
Rural Health Information Survey: Quotes from Respondents

Del Norte County

"Within the past 12 months, were you able to get the healthcare (including mental healthcare) you needed? If No, please explain why."

Federal Poverty Level Unknown
"Yes. No. New doctors will not take Medicare or Champ V.A."
"No. Made appointments, attended and no response to results or other appointments."
"No good family M.D.'s available."
"No. Not enough doctors to see everyone."
"No. Doctor Shortage."
"No. I don't know who to see and I don't have $."
"No. Didn't chase it down."
"Yes. In Arcata."
"No. My primary care physician is no longer seeing patients."
≤99% Federal Poverty Level
"No. Doctors not always available or overbooked."
"No. No doctors or dentists available for new patients in Del Norte or take CMSP."
"Yes and No. Cannot find a doc for my health. Found one for mental."
"No. No insurance."
"No. Money."
"No. Not enough psychologists available."
"No. Dentist."
"No. "A" Street Clinic full all the time. Or they say they can't take you."
"No. Too few doctors in Crescent City - went to Arcata."
"No. "A" Street Clinic refused to see me, kept telling me to call back later."
"No. Lack of doctors."
"No. I did intake with county mental health 3 or 4 months ago. They said they'd get back to me-they never have."
"No. Need operation on hand."
"No. No health coverage and not enough $$ to pay privately."
"No. No doctors at clinic."
"No. Lack of local doctors, can't get office visit."
"No. No insurance-money in community property is frozen due to divorce proceedings and it isn't in my name. Minimum wage etc."
"No. No doctors available or willing to take new patients or Medi-Cal."

“No. Sutter coast “politics” has caused most medical professionals (of all kinds including dentists) to leave Del Norte.”
“No. Cannot find a doctor.”
“No. Can’t get my knees and ankles fixed.”
“No. I’ve been seen a few times, however, still having same problem (flank pain).”
“No. Sometime doctor office filled up do due to short of doctors.”
“No. No doctors available who take Medi-Cal.”
“No. Needed mental healthcare when it is essentially unavailable in this community.”
“No. Too few doctors in Crescent City.”
“No. Our community health center does not accept new adult patients with Medi-Cal.”
“No, am on Medi-Cal due to not working. Del Norte has lost several doctors and most doctors don’t take Medi-Cal. (I finally got into a doctor here after an 18 month wait).”
“No. No doctor’s in or no doctor’s.”
“Yes. V.A. Health care. [Veterans Affairs].”
“No, dental work because cost of transportation and appts.”
“No. You must go to clinic for meds.”
“No. Limited. Most M.D don’t take Medicare or Medi-Cal.”
100-199% Federal Poverty Level
“No sometimes.”
“Yes. d/t [due to] pregnancy & medical, before pregnancy, 0 insurance, healthcare a major concern.”
“No. Old doctor retired, new doctor went south, good doctors are scarce here.”
“No. I haven’t any healthcare + I make too much for Medi-Cal. Only Open Door sliding scale.”
“No. No doctors here (Crescent City).”
“No. Do not have insurance.”
“No. I just can’t afford it.”
“No. Lack of doctors.”
“No. Doctors only in two days a week and can’t get appointment.”
“No. If I had needed any, I am unemployed with no insurance!”
“Most.”
“No. Clinic doc refused renewing thyroid meds based on year-old lab report.”
“Yes. No. Because you only have a small selection in the area I live in same specialist’s for most people have to go out of town because there’s no resources.”
“No. Not enough doctors in our area + no health insurance.”
“No. Unable to see physician immediately after stroke.”
“No. Too cheap to pay for it.”
“No. Lack of finances.”
“No. High deductible & job change = waiting period.”
“No. Doctors aren’t taking new patients.”
“No. No insurance.”
“No. Did not have the Money.”
“No. Too expensive, inadequate benefits, no transportation, and generally unavailable.”
“No. No Veteran’s clinic in Del Norte Co.”

“No. No Insurance. Don’t qualify for Medi-Cal and can’t afford disabilities.”
“No. Don’t qualify for funding and can’t afford it (full cost).”
“No. Limited doctors and mental health cuts in Del Norte county for the population.”
“No. Have CMSP [County Medical Service Program]-couldn’t afford to get to Eureka to see provider.”
“No. No dentists here accept Medi-Cal except “A” St. Clinic - I can’t meet their hours.”
“Yes. But must travel out of Calf [California]. Docs here are too in to money.”
“No. Couldn’t afford it.”
“No. Too expensive.”
“No. All doctors left the clinic.”
“Yes. But difficult to find internist-Crescent City and Eureka Internal Medicine Practices not taking new patients. I was fortunate to find a doctor when I had to go Sutter Coast Urgent Care and was referred to new doctor opening practice in Brookings.” (remainder of quote was removed as it revealed personal information)
200-299% Federal Poverty Level
“No. Local physicians will not accept health insurance (military retired).”
“No. Incompetent health care providers.”
“Yes, but I paid for it.”
“Yes. At other home in Colorado.”
“No. Physicians not taking new patients.”
“No. Tribal care wants me to try Medi-Cal first.”
“No. Shortage of doctors in Del Norte County.”
“No. Haven’t tried.”
“No. Can’t get medical staff to call back to make appointments.”
“Even with good insurance co-pays cost too much.”
“No. Takes 2-3 months for appt.”
“No. Lack of income.”
“No. No insurance.”
“No. Will not do therapy anymore.”
“No. No insurance.”
“No. No one available.”
“No. Shortage of doctors in Del Norte=few patient openings for basic care and lack of in-county care for specialists.”
≥300% Federal Poverty Level
“No. Doctor too busy to see me-referred to urgent care or E.R.”
“No $ and great health.”
“No. Insurance would only pay a larger portion of tests @ group facility.”
“No.”
“No.”
“No. lack of caring or listening of complaints.”
“No. More help with baths, wife hip in July had to pin.’
“No.”
“Yes. It took awhile to be seen, but was able to get care.”
“No. We have no doctors in town accepting new patients-especially w/ chronic pain.”

“No. I have just moved here and there are no Drs available at this time, I am on a waiting list.”
“No. No doctor could find out why my ulcers did not heal. I went to New York for Doctors.”
“No. I go to UCSF [UC San Francisco] for specialist concerning surgery and stroke.”
“No. Some docs are in Medford, OR”
“No. No psychiatrists in Del Norte county, nobody who practices cognitive-behavioral therapy.”
“No. Dr was inadequate and misdiagnosed me.”

“Within the past 12 months, were you able to get your child(ren) the healthcare (including mental healthcare) they needed? If No, please explain why.”

Federal Poverty Level Unknown
“No. Not enough doctors to see them.”
≤99% Federal Poverty Level
“No.”
“No. My children need to see a dentist + are not able.”
“No. Could not find a doctor nearby who knows about childhood anxiety.”
“No. Too full.”
100-199% Federal Poverty Level
“Yes. Father provides it and she has Medi-Cal for her disabilities.”
“No. The person assisting with our “healthy families” app. messed up and we were denied.”
“No. Don’t want to spend time because they can’t make the money they want (Healthy Families)”
“No. Lack of doctors.”
“Yes. Ex wife is on state assistance and receives Medi-Cal for our dependents.”
“No. No, doctors in our region will not take my children’s insurance. To see the dentist, it is a 6-12 month wait.”
“No. Certain services not provided except through ER and can’t afford to pay.”
“Yes. No. There is only one place in Crescent City that will accept my insurance for my children. I would have to go out of town if I want someone else.”
200-299% Federal Poverty Level
“Yes, but I paid for it.”
“No. N/A.”
≥300% Federal Poverty Level
No quotes

Note: Includes quotes from respondents with children under the age of 18 only.

Quotes from Humboldt County Respondents

"Within the past 12 months, were you able to get the healthcare (including mental healthcare) you needed? If No, please explain why."

Federal Poverty Level Unknown
"No. Because I still lived with my mom, but I was over 18."
"No. Don't get to go to the dentist often enough."
"Medi-Cal healthcare limited to 4 days a week."
"No. Mental healthcare is iffy and behaviorable. The last thing a sick person wants to be told is they're thinking badly."
"No. Closest town to me is Redway."
"No. Need deep tissue work on back, neck and shoulders."
"No. We don't do counseling we just supply drugs!"
"Yes, but I was traveling in Asia and got it there."
"No. Kimaw Medical Center is very low in funds, short staffed, provide basic services to low income families of which I am one."
"No. Can't afford it."
"Unable to get a general physician."
"Yes, but not in our community!"
"No. HPV."
"No. Work comp has been decimated by Schwarzenegger."
"No. No women's health specialists in Southern Humboldt who accept insurance."
"No. It's been 3 months since one dentist found a cavity, but it will be another 3 months before my appointment to fill it. I have Blue Cross dental insurance."
"No."
"Yes. No. Feminine stuff-ok; mental stuff-ok; knee injury no."
"No. I own 2 cars."
"No. Finances."
"No. No local asst. [assistance], no services available."
≤99% Federal Poverty Level
"No. No insurance for meds."
"No. School health center was closed for summer."
"No. No car."
"No. No money."
"No. Too far to drive."
"No. Provider claimed I did not need help. I was turned away-mainly due to my lack of finances/ability to pay."
"No. Transportation."
"No. Two to three months to get appointment."
"No. No mental health here and a doctor only Weds. In summer every other Wednesday."
"No. Had to drive to Fortuna emergency 2 times because they (Garb)[Garberville] wouldn't see us."
"No. Good question. It's stupid. I should."
"No. Medi-Cal takes too long to approved help."

“No. Mental healthcare from Co. is inadequate, and it takes forever.”
“No. Dental needs not met.”
“No. I need a night guard to prevent teeth grinding. Rest facial muscles. I need assistance with employment.”
“No. No money.”
“Yes for Diabetes. No on dental, have been trying for more than a year to find dentist who will take Medical for new patient.”
“No. Cancer second opinion.”
“No. No coverage.”
“No.”
“No. Lack of adequate transportation to doctors, drug stores, hospitals; some needs not provided for on Medi-Cal.”
“No. Can’t afford dental, vision.”
“No. Low income”
“I have received excellent and appropriate health care here in Orick.”
“No money.”
“Yes. No. Couldn’t get all because of $.”
“No. No medical insurance.”
“No. Too sensitive to “nosey-know-it-alls” given to “running lives of quiet, polite folk (esp. church).”
“No. No transportation between Garberville and Eureka.”
“No. Trouble finding a counselor and a lot of difficulty getting my son mental help. This county doesn’t have communication need with agency’s. County jail is its answer. I feel the reason of Cherrie Moore getting killed.”
“No. Wait too long (hours) -appointments too far down the road.”
“No. Told Dr. something wrong with stomach- she didn’t do anything.”
“No. Cause it seems like the doctor’s are only for money, not my health.”
“No. My ins. [insurance] had hard time covering my medical-you had to call to get a OK for it.”
“I don’t feel comfortable going to.”
“No. No money.”
“No. Dental is hard to come by for Medi-Cal.”
“No. Because when I tell the doctor my problem it is like they don’t care!”
“Yes. Workman’s comp. No. No insurance.”
“Yes. Still have 1 yr. to go on health insurance from past employer (COBRA). YEAH FOR COBRA.”
“No. I fixed the problem with mindset change.”
“No. I am uninsured and no money for “extras”.”
“No. Lack of dental services, lack of optometry services.”
“No.”
“No. I don’t need any.”
“No. Not had tests for financial reasons.”
100-199% Federal Poverty Level
“No. Lack of disposable income + no ins.”
“No. Cannot afford it.”

“Physical health care, yes; mental health care, no, despite thorough research + attempts to access private and county providers.”
“No. This is a good question. In this part of Humboldt Co. there is no home health service and so I had to stay in Sacramento to get IV infusions. Partly this is a problem with Medicare which is inflexible re: payments.”
“No, often can’t afford doctor or dentists visits.”
“No. Money!”
“No. Transitioning from San Francisco Co. to Humboldt.”
“No. I commute two hours to work, + when I get home I don’t feel like I have time to travel to receive health-care. Mental healthcare not needed just physical.”
“Yes. I have not applied for mental treatment.”
“No services locally.”
“No. Only for my back. I have little income and no health ins. [insurance].”
“No. Have no health ins. [insurance].”
“No. No insurance and no $ to pay out of pocket.”
“Yes/No. I have no health insurance so had to pay for the prostate exam & biopsy myself-very challenging.”
“No. Workers comp. denies chiropractic care.”
“No. Mental healthcare is in Eureka, too far to get for me.”
“No. Not in Humboldt County.”
“No. No Medi-Cal or money.”
“No. Only sometimes.”
“No. I don’t have health care.”
“No. No insurance; can’t afford.”
“No money.”
“No. Couldn’t afford it.”
“No. Don’t like to go to Dr.’s.”
“No. Can’t afford.”
“No. No insurance or money.”
“No. Cost and geographic inconvenience.”
“Yes. I have to pay out of pocket. No medical.”
“No. My flu was misdiagnosed, turn into life threatening pneumonia and chronic asthma, they would not give me meds subscription.”
“No. Cost without healthcare insurance.”
“No mental health care.”
“Yes. When I went to the doctor.”
“No. $ lack.”
“No. Limited MH [Mental Health] access. Only 6 visits per annum [Latin- year].”
“No. I need alternative health care.”
“No. Can’t afford it.”
“Yes. No. I have no health insurance now. It ended in April 06.”
“No. Lack of money, poor providers in area.”
“No. Money.”
“No.”

“No. No insurance.”
“No. No insurance.”
“No. Money.”
“No. Counseling cost $125.00 per hour or higher. I am lower middle class and don’t have that type of money. You learn to be quiet.”
“No. Dental is like 3 months waiting list to get in.”
“No. My ailment is not life threatening. Indian Health policy classifies my knee as a priority No.2 and will not pay for a knee replacement.”
“No. Poor insurance plan.”
“No. Physical healthcare 80%; mental healthcare too expensive.”
“No. No insurance.”
“No. Applied for Medi-Cal but was unable to attend my interview due to a family members health.”
“Yes. Can’t afford bill.”
“No. I have Kaiser, closest/ Santa Rosa.”
“No. Specialist not taking new patients.”
“Yes. But Medicare pays ½ only.”
“No.”
200-299% Federal Poverty Level
“No. Uninsured-low income.”
“No. I have ins. yet it’s too costly to see a doctor.”
“No. Lack of money.”
“Yes, except Blue Cross HMO wouldn’t approve acupuncture.”
“No. Way too long of a wait to get medical or dental appointments.”
“No. Local clinics closed on weekends.”
“No. Limited budget meant choose physical health over mental health.”
“No. My Blue Cross policy covers nothing except some hospitalization.”
“No. Can’t afford it, no insurance.”
“Yes. I could have another bill. No. I didn’t want to make another bill.”
“No. Found new female nurse practitioner OLC now.”
“Lost job at St. Joe’s- can’t afford insurance.”
“No. My chart is too thick and doctors aren’t listening to me anymore.”
“No. No reliable, trustworthy, doctor offices in area.”
“Yes. No. Can’t afford surgery to fix hernias.”
“No. Couldn’t afford it.”
“Yes. Busy schedule combined with limited days when therapist.”
“No. No time, no $.”
“Yes. No. Not the help I needed.”
“No. Too expensive (much!)”
“No. 6 hour waiting time at Mad River Emergency Room.”
“No. Hurt my neck on a job-work comp. delayed my medical care & there are no orthopedic back specialists here.”
“No, 2 hr. drive each way is too expensive (as is treatment).”

“No. Can’t find one that can help with problem-low depression.”
≥300% Federal Poverty Level
“No. Veteran mental health not available in W.C. [Willow Creek].”
“No. I live in the USA. I’m not rich.”
“No. Availability of good primary and specialist care is a challenge locally.”
“No. Uninsured; can’t afford.”
“No. No health insurance with my job!”
“No. Didn’t have the need/too much internal hand wringing over this.”
“Dr. over worked, difficult to get timely appointments.”
“No. Not really--hard to get timely appt.”
“No. Couldn’t get an MD to see my Achilles Tendon for 3.5 weeks.”
“No. I was able to see a doctor, but they (2) couldn’t/didn’t help me.”
“No. Not always-not easy to get in to see the good doctors.”
“No. Scheduling-no slots available.”
“Yes, if I paid for it out of pocket.”
“No. Unable to locate a local endocrinologist and other specialist.”
“Yes, finally, but lots of searching.”
“No. Not in Humboldt County.”
“No. Money-out of area specialist-high deductable.”
“No. Difficult to access due to distances.”
“No. Refused annual mammogram because local hospital no longer accepts my insurance.”
“Yes. I’m a veteran with PTSD [Post traumatic stress disorder, if I wasn’t a vet I’d be screwed in Humboldt County.”
“No. Too far to go.”
“No. Poor communication between doctors’ offices.”
“Yes. Dentist.”
“No. No insurance. Pay as private pog. [Last sentence was hard to read. We read it as the fact that the person is paying for medical care out of pocket.]”
“Yes. I drive to UCSF Medical Center monthly.”
“Yes and no, not every time.”
“No. I struggle with not having a personal physician.”
“No. Limited number of psychotherapists both covered by our insurance and accepting new patients.”
“No. No insurance.”

"Within the past 12 months, were you able to get your child(ren) the healthcare (including mental healthcare) they needed? If No, please explain why."

Federal Poverty Level Unknown
"No. Same reason as stated above. [Kimaw Medical Center is very low in funds, short staffed, provide basic services to low income families of which I am one.]"
"Yes, but not in our community!"
≤99% Federal Poverty Level
"No. No mental health here and a doctor only Weds. In summer every other Wednesday."
"No. Son had broken arm and they turned us away"
"No. No money."
"No. No coverage."
"No. No appointments, doctor unable to accept Medi-Cal."
"No. Uninsured and we live below the poverty line."
"No. Couldn't get referral for pediatric dental services."
"No. Not necessary."
"No, again, the dental, for doctor we go to Eureka Pediatrics."
"Yes. No."
100-199% Federal Poverty Level
"No."
"No. Would like to find a holistic/naturopathic MD/ pediatrician in area. Also need insurance to cover it."
"No. No health insurance"
"No. Local clinics are closed on weekends with no emergency services available. 50 miles to receive E.R. help."
"No. Dental."
"No. Not here -we have lost all confidence in the doctors up here."
"No. Medi-Cal doesn't carry the providers our children needs."
"No. Needs dental care that is more in touch with special needs children."
"No. See above. [Applied for Medi-Cal but was unable to attend my interview due to a family members health.]"
"No. No health insurance."
"No. Same as above. [lack of money, poor providers in area]"
"No. Same reason above [no insurance and no $ to pay out of pocket]"
"No. We had to wait until they got well-no health insurance. They had lice, low grade allergic reactions, sore ears, colds, + headaches."
200-299% Federal Poverty Level
"No. Daughter on Medi-Cal, hard to find doctors to accept it"
"No. We go to the natural route. Doctors want to push pharmaceuticals, not okay."
"No. 5 hour waiting time at Mad River Urgent Care with no care. Left to see what would happen."
≥300% Federal Poverty Level
"Yes. No. Yes - mental health care for my son, but we have to go out of the area for our pediatric neurologist."
"No. Have been trying to get counseling for a foster child (niece we have) and have troubles w/ referrals."
"Yes and no, too far away, problem resolved before we could get an appointment."

Note: Includes quotes from respondents with children under the age of 18 only.

Quotes from Trinity County Respondents

"Within the past 12 months, were you able to get the healthcare (including mental healthcare) you needed? If No, please explain why."

Federal Poverty Level Unknown
"No. Doctors over loaded don't have time needed."
"No. No mental health doctors in Weaverville; needed to go to Redding."
"No. Dr I trusted moved - the other is long distance."
"No. Called 911 then passed out-no response."
"No. Can't afford it."
"Yes. Out of county providers."
"No. My only insurance is V.A. [Veterans Affairs] health care."
"No. Hayfork doctors can find you a doctor someplace else, usually Redding when it's too hot, the run around for months the person loses interest and fails to show up."
"No. Snowed in all winter…but got email consultation when needed."
"No. Access time - long waits, limited choices, long distance for more choice."
"No. Couldn't afford it period."
"Yes. Yearly checkup."
"No. No money."
"Yes. Yes, counseling. Ins. [insurance] limits to 20 visits a year."
"No. Redding Ca. eye service was not good. Difficulty in getting the right medication."
"No. Can't always afford it."
≤99% Federal Poverty Level
"No. Cannot afford the high cost - make borderline amount so not qualify for Medi-Cal without a lien on my house."
"Yes. No. Mental health funds are limited-difficult to attain help."
"Healthcare not needed. Stop the spraying of chemicals and all problems would stop. Also it would help if the cost of vitamins and herbs could be covered by Medi-Cal to keep healthy."
"No. Takes time + skill. Got it at last."
"No. Couldn't afford an eye exam, skin exam, pap smear, mammogram."
"No. I am in a verbally abusive relationship-not married, 2 kids, new to town. I am plotting leaving within a year. We know we'll separate = I'm just concerned with surviving day to day. Have been to HRN [Human Response Network] for support."
"No. It's so far away!"
"Yes. Did not seek treatment for depression, already have too many medicines."
"No. No money or health care plan."
"No. Some but not all - cost prohibitive."
"No. Not covered by Medicare."
"No. No $ for travel expenses on living."
"No. No insurance."
"No. My car has been down and I live 100 miles from good health care."
"No. Not available? Financially not possible. No health insurance."
"No. 1. Not willing to sign over lien on house even though low income. 2. Transportation 3. Mental health is not private!!!"

“Yes. No. Redding doctors are very ignorant regarding Lyme Disease. My specialist in San Francisco provides my care now.”
“No. Cannot afford.”
“No. Because of history physician won’t issue correct meds.”
“No. Not enough money.”
“No. No money or transportation to VA.”
“Can’t afford.”
“No. Healthcare yes, mental healthcare no.”
“No. Unavailable to me-No ins. except CMSP.”
“No. No transportation available to medical facilities, doctor (12 mi), clinic (50 mi), hospital (280 mi).”
“No. Couldn’t find dentist in Trinity or Humboldt County that would accept Denta-Cal.”
“No. Not enough money.”
“No. Lack of transportation.”
“No. I have no insurance and the closest sliding scale clinic more than 2 hours drive.”
“No. I avoid the doctor due to cost.”
“No. because health ins [insurance] only covers so much rest is out of pocket.”
“No. No medical coverage. I pay cash for doctor appointments and prescriptions.”
“I have CMSP. It drops you every 6 months, then it takes up to two months to get back on.”
“No. Conflict of interest in mental health. Too busy in health care office.”
“No. Can’t afford it.”
“No. No money, no insurance.”
“No. Can’t afford it, no insurance.”
“No. Can’t afford blood tests-health care dentist.”
100-199% Federal Poverty Level
“No. No insurance.”
“No. Didn’t try.”
“No. Costs are too high. After paying for health insurance, cannot afford doctor. ($5,000 deductible).”
“No. Inadequate health insurance or none.”
“No. Was in mental clinic twice no help!”
“No. No policy for teeth. Too expensive.”
“Don’t know.”
“Yes but I had a negative reaction to medication (Boniva) that has taken a while to overcome.”
“No. Distance and cost.”
“No. No insurance; income not supporting doctor/dental bills/glasses.”
“No. Mostly cost.”
“Yes. No mental health care.”
“No. I have no health insurance.”
“No.”
“No. Finances, ins. Medicare now Blue cross Freedom Blue doesn’t help financially enough.”
“No. Medi-Cal lapsed - no blood pressure meds for awhile.”
“No. No money.”
“No. Must drive six hours - each way to doctor’s office and cannot afford the fuel.”

“No.”
“No.”
“No. No $.”
“No. Insurance will not pay - I pay so much for insurance that no money is left for doctors.”
“No. Didn’t want it-didn’t care.”
“No. Having no transportation here, I can’t make regular monthly appointments.”
“No. Not enough counselors.”
“No. No health coverage.”
“No. Because of my uncorrected disks, when I graduated from college my healthcare company would not renew my coverage.”
“No. Expense.”
“No. Too expensive.”
“No. My CMSP [County Medical Service Program] was cancelled and I had to get it reinstated.”
“No. No insurance, no access to medical care.”
“No. Shasta Co. wouldn’t take a Trinity Co. insurance.”
“Healthcare not needed. No. Just went on Medicare last month.”
“No. Lack of insurance, cost.”
“Yes. But not up to my standards.”
“No. No insurance not enough money.”
“No. Unable to pay for it.”
“No, Bad health insurance (high deductible)--$5,000.”
“No. No health ins.”
“No. No ins. [insurance] or money.”
“No. I have no insurance.”
“No. Lack of doctor in Weaverville.”
“Yes. Most of the time. No. Had to go out of my area for surgery.”
“No. Very few Drs. in this area know much about RSD [Reflex Sympathetic Dystrophy].”
“No. Insurance deductible for test too much. Co-pay too much. Test too expensive.”
“No. Refused counseling at Behavior Health [Behavioral Health Services] VA refused treatment”
“Yes. Because I now receive free medication on an assistance program from Wyeth Pharmaceutical.”
“No. Self-employed, can’t afford it.”
“No. Self-employed, can’t afford plans.”
“No. The doctor here is no good.”
200-299% Federal Poverty Level
“No. Lack of money.”
“No. None needed.”
“No. No health care insurance.”
“Yes. Out of the area Shasta Co.”
“No. Did not seek mental health due to cost.”
“No. Cost. I’m on Medi-Cal.”
“No. Can’t afford to go to a specialist. No insurance.”
“Insurance doesn’t cover mental health.”

“Yes. Credit card enables me a visit per year.”
“No. Unable to find + afford mental healthcare.”
“Yes. I often turn to books and internet for research. Doctors for routine care.”
“No. Could not find doctor for urgent care of skin allergy.”
“No. No insurance, cannot afford it.”
“No. No real help for mental health other than drugs available.”
“No. My deductable + co-pay is high.”
“No. Fear of cost.”
“Yes, except hard to see specialists.”
“No. Overworked doctors-lack of dentists-poor doctors office hours.”
“No. My depression is sporadic (I lost my spouse).”
“No. Inaccessible.”
“No. No health insurance.”
“No. Money.”
≥300% Federal Poverty Level
“No. Doctors too far away - have to take a full day off work for a 15 min office visit.”
“No. Did not feel motivated to seek it. Homeopathic/naturopathic medicine not encouraged as an option.”
“Somewhat. Hard to find quality doctors and therapists.”
“No. I was taken care of by State Compensation Fund - but dropped because of our governor cancelling all cases, even though I won health care.”
“No. Adequate M.H. [mental health] practitioners not available in our county.”
“No. No gynecologist in area.”
“No. Kaiser member no Kaiser here.”
“No. Healthcare provider is in bay area.”
“No. No adequate dental care in our area.”
“Yes. In Redding.”
“No. I have residency in Sacramento County, so I can go to Kaiser.”
“Yes. (I have a doctor in Shasta County).”
“Irrelevant.”
“No faith in my doctor.”
“Yes. In Redding.”
“No. Too expensive.”
“No. No always enough $ to even pay co-pay/deductible.”
“No. No funds.”
“No. Not locally. I had to go to Redding, but I did get care.”
“No. Local GP [general practitioner] too uninformed, yet reluctant to refer to specialists in the city.”
“No. No health insurance until recently 7/06.”
“Yes. No. Dentist.”

"Within the past 12 months, were you able to get your child(ren) the healthcare (including mental healthcare) they needed? If No, please explain why."

Federal Poverty Level Unknown
"No. Can't afford costs can't make it, can't sell it."
≤99% Federal Poverty Level
"No."
100-199% Federal Poverty Level
"No. No medical insurance."
"No. No psychiatrist, No (child) psychiatrist."
"No. No health insurance - $8000 deductible."
"No. No dental in county that take Medi-Cal."
"No. No insurance."
"No. No mental health care in the area."
"No. Mental healthcare limited to a tele-psych."
"No. No pediatric endocrinologist in area. Had to go to UC Davis."
200-299% Federal Poverty Level
"Yes. Doctors. No. No dentist."
"Yes. Except she has OCD and the nearest specialist is in Sacramento-also we have Blue Cross or it would cost us 100.00 per session."
"No. Medi-Cal."
"Yes. Out of the area - Shasta Co."
"Yes. Regular doctor appt. for sore throat nothing major."
"No. Same as # 4 [my deductable + co-pay is high]."
≥300% Federal Poverty Level
"No. Dentist."
"No. Mental health service for children is weak + expensive for non-Medi-Cal."
"No. Same as 4 [healthcare provider is in bay area]."
"Yes. Healthy families."

Note: Includes quotes from respondents with children under the age of 18 only.

Quotes from Mendocino County Respondents

"Within the past 12 months, were you able to get the healthcare (including mental healthcare) you needed? If No, please explain why."

Federal Poverty Level Unknown
"No. Covered UPS-union while working: dropped when disability forced retirement. Too far from Kaiser-Santa Rosa, Ca. Rotten deal."
"No. Not needed."
"No. No Medi-Cal."
"Yes. But it is far from home!"
"No. If you don't have insurance……."
"No. No coverage."
"No. Time to access reproductive health services not available w/in 1 hour."
"No. Don't need it any mental help or anything like that."
"No. Insurance company harassing me + doctor."
"No. Only group mental health is available on Medi-Cal."
"No. No money or ins."
"No. No personal doctor. No one who knows my personal health, no follow through."
"I have no insurance."
"No. Short on good doctors."
"No. Didn't have the coverage."
"Yes. Luckily I didn't get sick. If I needed it I wouldn't have been able to afford it."
"No. Mental? There is no coverage with CMSP [County Medical Services Program] for therapy other than a 3 hour drive for a 30 min appointment with someone I don't get to choose."
"Yes. No. Paid cash for most health care."
≤99% Federal Poverty Level
"No. Couldn't pay for all the dental work I should get."
"No. No insurance."
"No. I am a disabled veteran getting little to no help thru veterans services."
"No. Too expensive."
"No. Can't afford an MRI."
"No. No ins. or Medi-Cal."
"No. Unable to afford it without medical insurance."
"No. Lack of insurance lack of money."
"No. Cost prohibitive; don't trust local doctors."
"No. Too far to travel and type not covered by Medi-cal."
"No. Pretty far to clinic/hospital and expense."
"Yes. Good dental care."
"No. Lack of funds, distance, doctors retirement."
"No. Cannot afford it for myself, my children come 1st w/ healthcare."
"No. Insurance is limited some things are no longer covered."
"The anxiety is sometimes overwhelming."

“No. There isn’t any confidentiality, so I try to go out of town which I really can’t afford.”
“No.”
“No. Wanted mental health care-but must be referred by courts.”
“No, because you are over-looked if you have Medi-Cal.”
“No. I am an injured-work w/ multiple injuries x6 and I have had more than my share of holdups from insurance company 12 years!!!”
“Recently.”
“No. No money, No insurance.”
“No. No psychologist/counseling available with CMSP [County Medical Services Program]. Absolutely no psycho-therapy from licpsyc. [Licensed Psychologist/Psychotherapist].”
“No. With Medi-Cal as my insurance I am very limited as to treatment and doctor.”
“No. Sometimes the mental health care providers couldn’t provide services needed.”
“No. No competent doctors or therapists.”
“No. No insurance. Doctors want payment at time of service.”
“Yes. and No. Money shortage and no insurance. I have gotten a few months.”
“No. No insurance-cannot afford.”
“No. Couldn’t pay for it.”
“No. No insurance + insufficient funds.”
“No. No insurance and living well below poverty level to self pay.”
“No. No transportation.”
“No. Only tribal counseling facilities available.”
100-199% Federal Poverty Level
“No. No insurance. Can’t afford to go to the Dr. our income puts us over Medi-Cal.”
“No. I need a neurologist but there is none in Mendocino”
“No. Not here.”
“No. Insurance is $5000 deductable so I basically have it for emergency critical issues.”
“No. Too expensive.”
“No. No benefits, local health center charges me 70.00 per visit, have to drive over an hour for therapy - M/H 2X’s a month, no dental.”
“Yes. Flu shot.”
“No. Transportation not available to Sonoma.”
“No. Money.”
“No. I am single and can’t afford my $35 co-pay when needed.”
“No. Because it was not covered by my insurance.”
“No. Insurance, no good local health clinic.”
“No. Too expensive- insurance always excludes me.”
“No. Some types are too expensive. Am still paying off medical bills.”
“No. Rarely go because of high deductable and low income.”

“No. Only walk-in is ER - only place open.”
“Yes. Went to Santa Rosa for skin cancer check.”
“No. I need alternative health care.”
“No. No insurance and no money for dentist.”
“No. No insurance. Could get x-rays to determine thumb problem but if surgery required couldn’t afford so why do it (For example).”
“No. No insurance-little income.”
“No. Would’ve gotten a check-up, + maybe had one minor thing looked at, but I don’t have a family practitioner—the one I had retired.”
“No. Economic issues.”
“No. [mental healthcare circled] Regarding my child - he was capped off by my insurance - & they won’t pay for any more visit.”
“Yes. But w/out ins. it took all of my IRA. Husband cong. [congenital] heart.”
“No. No insurance.”
“No. Not enough money to pay for what I felt I needed.”
“No. Costs too much.”
“No. Doctors and nurses at the clinic are overloaded - don’t always have enough time to really give adequate care to everyone.”
“No. I can’t afford health insurance-I need a pap test + some blood work.”
“No. No lesbian OB/GYN.”
“No. No insurance coverage. Didn’t qualify for CMSP.”
“No. I make too much money, 1800 a month.”
200-299% Federal Poverty Level
“No. Poor health insurance.”
“No.”
“No. No health insurance.”
“No. Dental and other medical I’m only covered by family planning.”
“No. Have waited 4 months to see a podiatrist.”
“No. Insurance doesn’t cover.”
“No. Too expensive.”
“No. There is only for people on drugs I’m not.”
“Yes. As you know salaries are lower here and quality of talent is lower than southern California.”
“No. Couldn’t afford it.”
“No. No insurance and low income.”
“Yes. By driving to Santa Rosa.”
“No. No one will treat back pain medicinally.”
“No.”
“No. Didn’t meet Med deductible-deemed level 2-for eye Dr. exam.”
“No. No reliable, trustworthy, doctor offices in area.”
“Yes. Family planning. And No. Can’t afford dental.”
“No. Switched carriers 6 months exclusion pre existing condition care and prescriptions.”
“No. N/A, didn’t go.”

“No. Didn’t go to Dr., toughed it out.”
“No. No insurance.”
≥300% Federal Poverty Level
“Yes. But after trying several unskilled doctors and having to travel about 100 miles away.”
“No. Fear of employer knowing I needed mental health care.”
“No. Doctor doesn’t take patient on short notice, long wait times.”
“No. No insurance, Cannot afford health care.”
“Yes. Without insurance, I paid.”
“No. Getting an appt w/ doctors. Unless an absolute emergency is difficult.”
“Yes. No. I was able to start but once diagnosed Blue Cross drop me and prescriptions run $400 a month so I just take medication when symptoms occur.”
“ Yes, but I have to drive 2-3 hours for specialist care.”
“No. No dermatologists here-mental health-lack of insurance coverage.”
“Yes. I have Medicare- need PersCare [a type of PPO basic plan] for myself.”
“No. Very Limited medical providers.”
“No. Couldn’t afford it.”
“No. I was on Cobra after losing my job. I chose not to go to a doctor for anything because I didn’t want any condition on my record to affect my obtaining private health insurance.”
“No. No “local” doctors. My doctor is 4 hours away.”

“Within the past 12 months, were you able to get your child(ren) the healthcare (including mental healthcare) they needed? If No, please explain why.”

Federal Poverty Level Unknown
“No. Need to be on health plan—they want you to drive too far.”
≤99% Federal Poverty Level
“Yes. No. Limited knowledge by local MD’s—will have to go to Shriner’s in Sacto.”
“Yes. My daughter has started her menstrual period.”
“No. My son’s dental.”
“No. They aren’t comfortable with the providers.”
“No. Medical coverage for braces at a distance. Transportation + time a problem.”
“No. My son had a strep infection all over his body which required 3 MD visits and 1 ER visit. The care was mediocre and expensive.”
“No. It’s hard to get a doctor. There is a waiting list—would like to leave pediatrics.”
“No. No vehicle.”
100-199% Federal Poverty Level
“No. Same as above [no ins., can’t afford to go to the doctor our income puts us over Medi-cal]”
“No. Not available here. She sees therapist bimonthly in Willits M/H is available 1 day every other week here in Covelo.”
”No. See above. [mental healthcare circled] Regarding my child, he was capped off by my insurance and they won’t pay for any more visits.”
“No. Not always enough appointment times available by counselor + psychiatrist.”

“Yes. Barely! Doctors won’t see kids if not patient MCH [Mendocino County Health] Clinic won’t see you if you are insured!”
“Yes. No. Except dental - payment thru Medi-Cal sucks!”
“No. On a weekend the only place to bring a sick kid is the ER.”
“No. I have to travel to UCSF for a daughter with ongoing medical condition.”
200-299% Federal Poverty Level
“No. We go to the natural route. Doctors want to push pharmaceuticals, not okay.”
“No. Well because small community everybody knows and suspect the worst.”
≥300% Federal Poverty Level
“No. My child has been denied coverage because he gets migraine headaches.”
“Yes. 2 hr drive to pediatrician.”

Note: Includes quotes from respondents with children under the age of 18 only.

About the Authors

Jessica Van Arsdale, MD, MPH is the Director of Health Research at the California Center for Rural Policy, Humboldt State University. She was born and raised in northern Mendocino County (yes it is true, she was born in a potato chip truck). She received her bachelor's degree from the University of California, Berkeley and her Medical Degree from the University of California, San Francisco. She completed a residency in Family Medicine and Preventive Medicine at Oregon Health and Science University and concurrently completed a Masters in Public Health at Portland State University. Her research interests include rural health, environmental health, and prevention. She is also a practicing family physician.

Launa Peeters-Graehl, MA (Psychology) has been a research assistant for CCRP for the past two years. Her research interests include preventive health behaviors, health beliefs, and the impact of poverty on education and health for women and children. Launa plans to pursue a doctoral degree in clinical health psychology.

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Adrianna Marie Bayer, MA (English) recently completed her MA thesis exploring issues of subjectivity and identity in Chicana literature. She holds a BA in English and an additional BA in History. She will go on to continue her education and earn a PhD in English or Chicano studies.

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