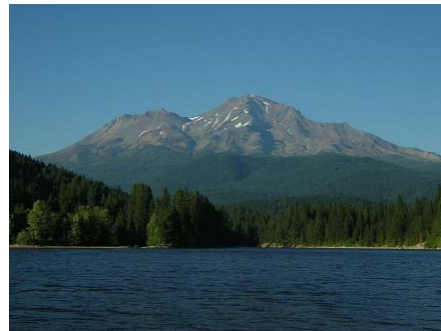




## **Mountain Valley Health Centers Economic Study**

**Economic Impact and Potential Demand for Mountain Valley Health Centers**

**September 2008**



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## **Introduction**

Mountain Valley Health Centers, Inc (MVHC) operates six nonprofit community health centers in Bieber, Burney, Dorris, Burney, Fall River Mills, and Tulelake, California and serves the residents living in portions of Siskiyou, Shasta, and Lassen counties. It is a Federally Qualified Health Center, which means it is eligible to receive one-to-one cash reimbursement for providing health care services to lower-income residents. The state of California helps pay some of the cost of care for those who are able to pay for a portion of their care. Unfortunately, the state has been late in fulfilling its payment obligations to MVHC, which threatens the clinic's financial viability.

MVHC covers a 6,000 square mile service area and is the primary health care provider within this area. The only other major health care facility in the area is the Pit River Indian Health Service Clinic in Burney. The population of the service area is over 15,000, and it is likely that an equal number of people visit the coast on summer weekends and holidays. Without MVHC, people in rural northeastern California who need clinic services would have to use a local hospital emergency room, or travel nearly an hour over winding mountain roads to reach the nearest clinic.

## **Financial and Economic Challenges faced by MVHC**

According to MVHC's Chief Financial officer, Jay Bowden, over half of the MVHC patients are low income, with 29 percent living below the federal poverty level (FPL) and 67 percent below the 200% FPL. Only 36 percent of their patients have their own private insurance, while 21 percent of their patients are uninsured, 22 percent of their patients are with Medi-Cal, 18 percent are with Medicare and 3 percent are with State Child Health Insurance Programs. MVHC's service area has a very low population density and is subject to severe winter weather, particularly from November through April each year. This can complicate access to health care for its residents. All towns in the service area have either been designated a Medically Underserved Area or has a Medically Underserved Population by U.S. Health Resources and Services Administration. In addition, the entire MVHC service area is designated as a Health Professional Shortage Area.

The recent increase in gasoline prices has created has adversely affected MVHC's patients, as many of these individuals must drive to the clinic to receive medical assistance, and there is little or no public transportation within the service area. This represents an additional burden on low-income families in the service area.

Due to low salaries and a lack of certain amenities in rural communities, it is difficult to attract needed health care professionals. MVHC's six clinics face chronic shortages of medical and dental providers. Currently, there are two medical provider vacancies and two dental provider vacancies. Butte Valley Health Center is recruiting one physician and one dentist, Big Valley Health center is recruiting one dentist, and Tulelake Health Center is recruiting one physician. The physician and two mid-level provider vacancies

occurred in February and March, 2007, and the dentist vacancies occurred in May and June, 2008. Physician salaries are roughly \$20,000 below the average for urban California areas (e.g. Redding and Sacramento), and the dentist salary is approximately \$10,000 below average for these same urban areas. The lack of amenities (e.g. movie theaters, shopping malls, video arcades and restaurants) also creates a challenge when attempting to attract physicians with young families to the area.

During the summer of 2002, a private physician medical group consisting of three health clinics approached MVHC in an effort to save health care in the region. A medical crisis was looming as physicians were leaving the area due to poor reimbursement rates, provider scheduling problems, and medical personnel issues. Had this trend continued, obstetrical services in the area (for example) would have ceased, creating a serious health care gap for area residents. The loss of these three clinics would have also threatened the survival of the only hospital in the area – Mayers Memorial Hospital (MMH). Its loss would have created a “domino effect” on the whole region’s economy. After a significant collaborative effort by MVHC, MMH, and area physicians, these three health clinics were merged into MVHC in October 2002. This merger took place outside MVHC’s Federally Qualified Health Center scope, and MVHC has experienced significant financial hardship as a result. There has been no significant additional federal funding associated with the three clinics.

Finally, July 1, 2008 marked the seventh year out of the past ten that California’s legislature has been unable to pass a state budget on time. The state withholds all Medi-Cal payments to health clinics until the budget is passed. This has caused a substantial financial burden and a significant loss to health clinics over the years. With approximately 22 percent of the patients seen at the clinic receiving Medi-Cal, the state’s failure to honor its Medi-Cal obligations in a timely manner places a significant financial burden on MVHC. This delay of funds has caused health clinics statewide to take on additional loans with high interest rates. Though MVHC will eventually be paid for these Medi-Cal visits, the clinics is required by law to continue making payroll and will not be reimbursed by the state for interest payments on any monies borrowed. The interest on these loans must be paid back out of existing revenue streams and represents the economic cost of state budget impasses to health clinics that serve low-income patients.

### **Purpose and Limitations of the Study**

The purpose of this study is to estimate the impact of the Mountain Valley Health Centers on the local economy of Shasta, Lassen, and Siskiyou counties. The study’s objective is to reveal possible consequences of losing this health center, and how that would impact the community’s levels of population, income, and business revenues.

Many of the negative effects on the local community, perhaps including some of the most important ones, are difficult to quantify. Among the adverse impacts of the loss of the medical facility are the effect on the quality of life of local residents, and the ability to attract and/or retain residents and businesses. Any negative impact on future population

may have additional consequences for property values and local tax revenues. These could potentially lead to further reductions in local government services and the quality of life for the residents in Shasta, Lassen and Siskiyou counties. Depending on the extent of the population impact, it is also possible that if some threshold is reached the area may experience the loss of existing retail and service businesses.

While these potential impacts are impossible to quantify, it is quite possible that they are significant. Some individuals might choose to leave the area, while others may choose not to come at all. Potential new businesses might avoid locating in the rural northeastern California due to limitations on medical services for their employees. In each case, these responses will lead to population reductions, lower property values, and reduced local revenues. If those who might choose to leave are, for economic reasons, unable to do so, then the impact of reduced availability of medical services would manifest itself in terms of a reduction in the quality of life for those who must delay or never seek appropriate medical care. Use of Mayers Memorial Hospital in McArthur and Sky Lakes Medical Center in Klamath Falls, Oregon and their emergency rooms may increase as a substitute for Mountain Valley Health Centers, but these services are not only much more expensive for the patient who is able to pay, but also cost more to deliver for those who cannot. Whether the cost is expressed in terms of reduced population and economic activity, or a reduction in the quality of life for those who are locked into the region, the closure of Mountain Valley Health Centers does impose costs that are not quantified in this report.

### **Summary: Market Growth and Net Impact of MVHC Operations**

The need for clinic services in rural northeastern California is growing. The area sees a substantial amount of in-migration, especially from families with children age 0 to 4, adults age 20 to 34, and middle aged adults ages 40 to 59. As the state's baby boomers continue to reach the latter age group, their numbers are expected to grow rapidly through 2020. This is the age group that is most in need of clinic services.

The total economic impact of MVHC, the impact of all operations, is close to \$14.4 million in revenue to businesses and organizations (including for profit, nonprofit, and government organizations). This includes over \$6.9 million in labor income (income to employees and business owners), and provides 203 jobs in Shasta, Siskiyou, and Lassen counties.

### **Other Considerations: Future Impact and Economic Viability**

The economic impact of MVHC will grow as demand for its services increases with the growing senior population in rural northeastern California. While Mountain Valley Health Centers clearly has a positive impact on the area economy, its continued economic viability does depend on the availability of some form of government assistance. However, the amount of required assistance may decline over time.

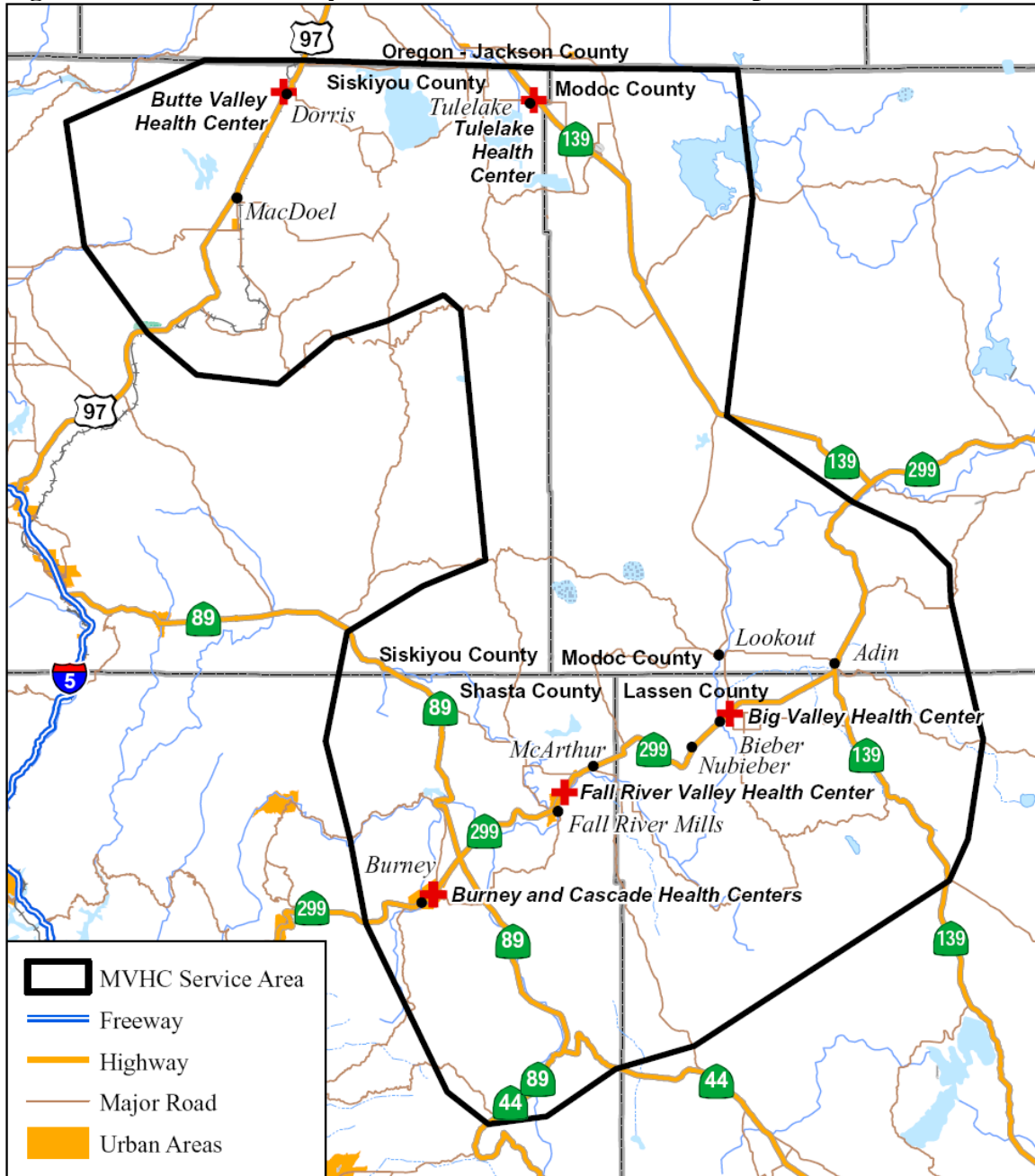
### **Analytical Approach and Report Scope**

This report explores several demographic and economic issues that are related to the presence of MVHC in the rural northeastern area of California. The first concerns past trends in net migration to and from the rural northeastern part of California by age, with the analysis focusing on two groups that typically need local health care: young families and senior citizens. The second issue is the economic impact in terms of revenue to businesses and organizations, labor income, and jobs in the rural northeastern part of California should MVHC to close due to financial issues. The third issue is related to clinic health care alternatives available to county residents. Finally, the report concludes with a statement linking the analyses provided.

### **The Mountain Valley Health Centers Market Area**

The market area for MVHC is defined as the area within a thirty-minute drive of any of the five MVHC locations, and where MVHC is the nearest FQHC health clinic (excepting the Indian health clinic in Burney). The market area extends along State Highway 299 between Hatchet Mountain Pass west of Burney and Adin Pass east of Adin, plus the Butte Valley and Tulelake Basin along the Oregon Border at U.S. Highway 97 and State Highway 139. The total population of the MVHC's market area was 15,189 in 2000.

Figure 1 – Mountain Valley Health Centers Market Area Map



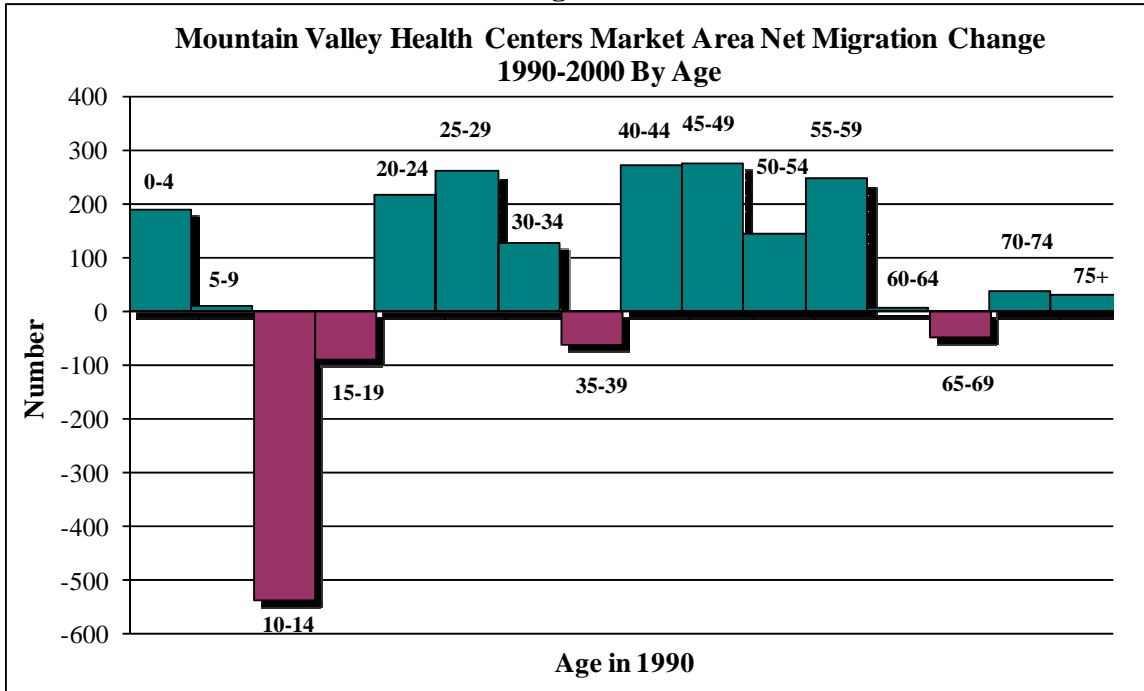
Map created by the Center for Economic Development at CSU, Chico.

### Population Migration Trends and Projections

By using population by age in the 1990 and 2000 census, combined with the annual number of deaths by age between these census dates, the CED can calculate net migration by age. Figure 2 shows five-year population age groups and net migration change between 1990 and 2000. The chart shows age in 1990 and net migration for that group

over the next ten years. For example, the chart shows the migration pattern for people ages 0 to 4 in 1990 as they age to 10 to 14 in 2000.

**Figure 2**

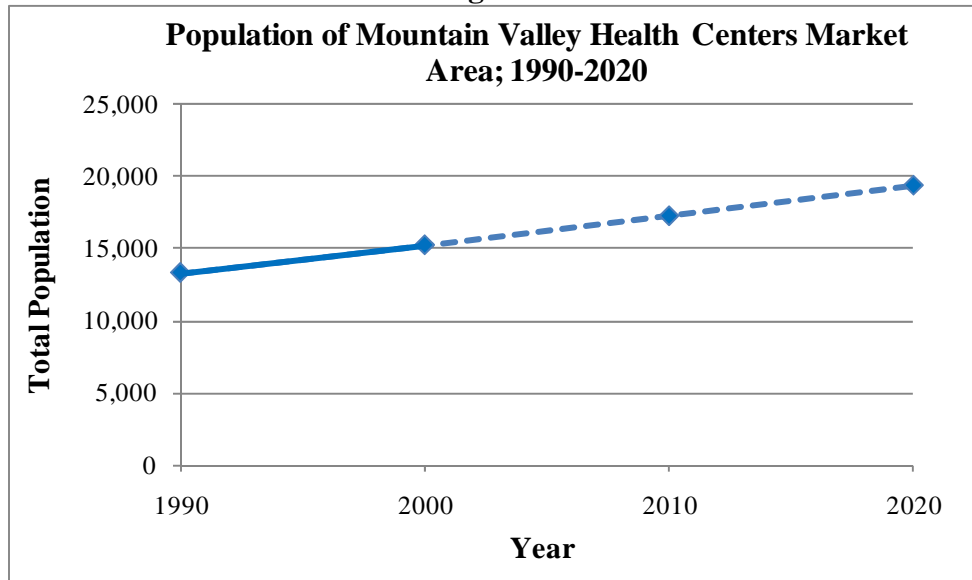


Source: U.S. Department of Commerce, Bureau of the Census; California Department of Health Services, and the Center for Economic Development at CSU, Chico.

The peak in-migration ages for MVHC’s market area residents are young children under the age of 4, family-age adults between the ages of 20 and 34, and middle-age adults between the ages of 40 and 59. There is a substantial net out-migration for young people ages 10 to 19 as they age to 20 to 29 years old; a period during which people usually graduate from high school and college.

Using current and projected population at the state level, the CED can project the population of the MVHC’s market area assuming the current migration pattern by age group remains unchanged in the future. Between 1990 and 2000, the population of the MVHC’s market area grew by 1,910 people from 13,279 to 15,189. If the same migration pattern continues, the population can be expected to increase by an additional 4,118 people in the twenty-year time frame to 19,307 residents by 2020.

**Figure 3**

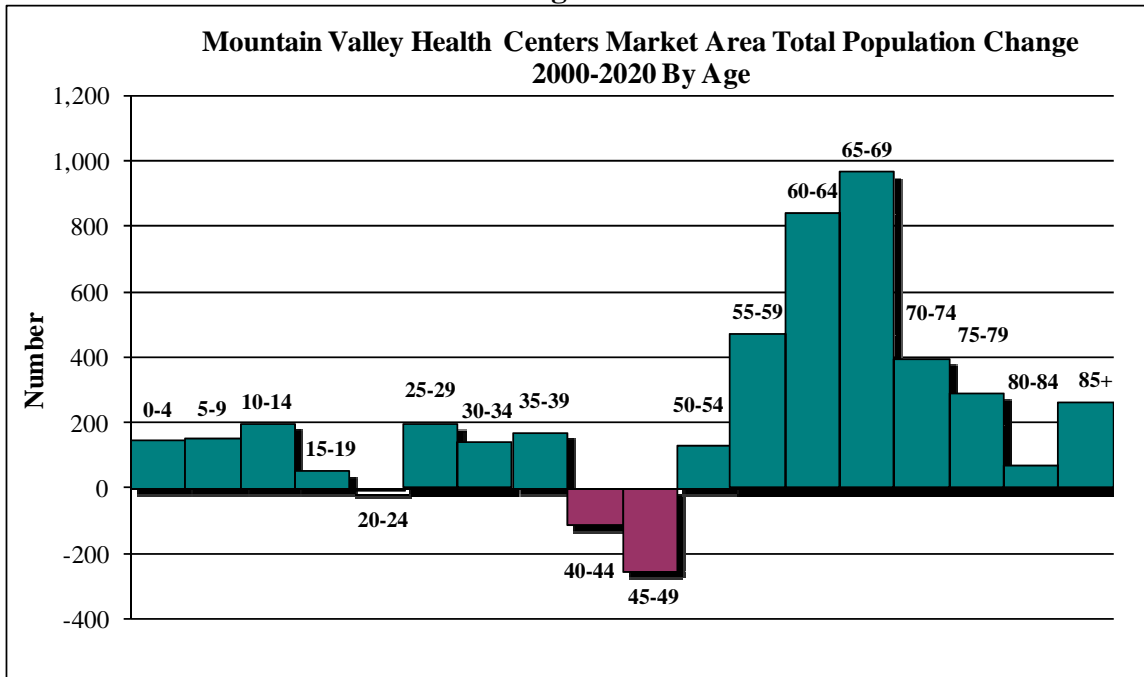


Source: U.S. Department of Commerce, Bureau of the Census; California Department of Health Services, and the Center for Economic Development at CSU, Chico.

This population projection method allows forecasts of population by age. This technique is useful because it allows the evaluation of change in population for age groups that tend to use medical facilities, such as young children and older adults. Figure 4 shows expected population change by age between 2000 and 2020. Here, the effect of California's baby boomers in the MVHC's market area becomes apparent. During this period, the population of individuals over the age of 50 is expected to increase by 3,425. This age range is expected to be responsible for more than 4 out of 5 net new residents through 2020.

While total population is increasing slowly in northern Siskiyou County, the number of residents most likely to use SFH is growing at a much faster rate. These adults have a direct need for clinic services, and therefore are an especially important group to MVHC. While total population is slowly increasing on the Mendocino Coast, the number of residents most likely to use MVHC is growing at a much faster rate. The significance of this is twofold. First, MVHC can expect its potential market to grow in the near future. Second, this is a large group of community residents who may not choose to locate in the MVHC's market area if a health clinic were not available, or they may choose to leave the area. The loss of the clinic means a potential loss of hundreds of additional people as well as a potential loss of millions of dollars in revenue for the local economy as a result of lost retirement income spending.

**Figure 4**



Source: U.S. Department of Commerce, Bureau of the Census; California Department of Health Services, and the Center for Economic Development at CSU, Chico.

### **Economic Impact of MVHC**

MVHC employed 125 people during 2007 (total count of income tax W2s)<sup>1</sup> with a total payroll (including benefits) of \$3,982,800 during the last calendar year. Total revenue from services provided was \$7,124,400.

The economic impact of the clinic is not limited to the direct expenditures, payroll, and jobs it provides to the community. There is also a secondary impact, which is the sum of indirect and induced spending and jobs. Secondary impacts cover situations such as an employee of the hospital buying groceries at the local store, or having their vehicle repaired at a local shop. If the employee’s income no longer existed due to closure of clinic, the grocery store and repair shop would also lose business as a result. Secondary impacts would also include losses to janitorial services and other businesses supplying goods and services the hospital buys locally.

In order to estimate the economic impact of MVHC, the CED used the IMPLAN economic impact modeling system. IMPLAN uses existing economic data to create a spending matrix that models transactions between industries, households, and government organizations. The model estimates dollar transactions between these

<sup>1</sup> The CED used MVHC’s count of W2s for 2007 because this figure is consistent with employment estimates provided by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). The IMPLAN economic impact analysis system uses BEA data for its economic model, so this figure is more consistent with IMPLAN data than total jobs counted at a single point in time.

institutions and organizations so that the economic impact to the entire economy can be estimated from a disruption in modeled dollar flows. The loss of MVHC would be an example of a disruption because dollars flowing through that organization would no longer be circulating through the local community.

The total economic impact of MVHC operations is over \$14.3 million in revenue to businesses and organizations (including for profit, nonprofit, and government organizations). Of this total, over \$6.9 million is labor income (income to employees and business owners), resulting in 203 additional jobs. This includes the direct loss of the clinic and a secondary impact of over seven million dollars in revenue to other businesses and organizations in the community, over \$2.9 million in labor income, and seventy-eight jobs.

**Figure 6 – Gross Economic Impact of Siskiyou Family Health Care**

<b>Impact Type</b>	<b>Direct Impact</b>	<b>Secondary Impact</b>	<b>Total Impact</b>
Revenue to Businesses and Organizations	\$ 7,124,400	\$ 7,261,564	\$ 14,385,964
Labor Income	\$ 3,982,800	\$ 2,919,692	\$ 6,902,492
Jobs	125	78	203

*Source: IMPLAN Economic Impact Analysis System and Center for Economic Development at CSU, Chico*

This analysis does not consider the ancillary economic benefits of the presence of MVHC in rural northeastern California. This includes businesses or government establishments that may have to leave the community with insufficient health clinic services in the community. In addition, it is possible that some residents would choose to relocate out of the area. That would bring additional economic impacts to the area in terms of reduced spending, income, and property values.

The possibility also exists that the economic impact analysis somewhat overstates the effect of MVHC on the local economy. Closure of the facility is not likely to result in the loss of all local clinical health services. Other service providers, such as Mayers Memorial Hospital in McArthur and Sky Lakes Medical Center in Klamath Falls, Oregon, may expand its clinical and/or its hospital emergency services to fill a portion of the void created by MVHC’s closure. However, services provided by the hospitals would be more expensive and, for the lowest-income residents of rural northeastern California who are unable to pay for services, could prove to be an unbearable financial burden for the hospitals and threaten their solvency as well.

## **Conclusion**

The population of the rural northeastern California most in need of medical services is growing and will continue to grow in the near future. If the Mountain Valley Health Centers were to close, the overall economic cost would increase over time. In 2007, the economic cost would have been more than \$14.3 million in revenue to businesses and organizations, over \$6.9 million of which was paid out as labor income. Therefore,

closure of the clinic would represent a tremendous loss to the community, not only in economic terms, but also in terms of quality of life. Residents would have to use a local emergency room, or travel nearly an hour over winding mountain roads to receive services that would more efficiently be delivered by a local community clinic such as Mountain Valley Health Centers. Clearly, clinical health services for rural northeastern California residents would be more efficiently delivered by a local community clinic such as the Mountain Valley Health Centers.