Suffering in Silence: 
A Report on the Health of California’s Agricultural Workers

Researched Conducted By 
California Institute for Rural Studies 
Sponsored By 
The California Endowment 
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This brief condenses and summarizes the initial findings of the California Agricultural Worker Health Survey (CAWHS), a major statewide health survey of agricultural workers incorporating a comprehensive physical examination, and thereby providing the first-ever baseline health status data for this labor force. This significant survey of the health status of California’s agricultural workers was conducted during 1999 by the California Institute for Rural Studies (CIRS), a private, non-profit research organization based in Davis, Calif. The report documents the critical need for intervention to improve the health status of California’s hired farm worker population through improvements in access to health care, education and nutrition. The survey was funded by a major grant from The California Endowment, based in Woodland Hills, Calif.

“With this report we are asking California and the rest of the nation to cast their eyes on the more than 1 million migrant and seasonal agricultural workers of California and family members,” explains Robert K. Ross, M.D., president and CEO of The California Endowment. “We find the results disturbing. No group of workers in America faces greater barriers in accessing basic health services.”

Surprisingly little has been known until now about the health status of U.S. agricultural workers and their families. Despite numerous federal and state programs that provide health services for agricultural workers, as well as statistical evidence available through the decennial Census of Population and Housing, the supporting government agencies fund little or no fundamental research on this population. The existing medical literature lacks baseline data regarding the health status of U.S. agricultural workers or their family members.

The paucity of reliable health status information about this population is attributable to the fact that most agricultural workers are foreign-born, do not speak or read English, live in poverty, and many are undocumented immigrants. An unknown but presumably large proportion of them do not have a usual place of residence in the United States because they migrate to find work. Clearly, an accurate determination of the health status of this population required unconventional research methods—a realization that led to this important research project.

This study had three principal objectives:

- Development of a health needs assessment based on a representative cross-section of current agricultural workers in California;
- Collection of the first reliable baseline data to objectively identify priorities for interventions funded by The California Endowment; and
- Establishment of a database to serve as a reference against which to measure the effectiveness of future public and private interventions.

Health Status

Each participant in the study agreed to a 90-minute interview at his or her residence; a comprehensive physical examination at a nearby medical facility, including a full blood chemistry analysis performed by an independent medical laboratory; and a private interview at the clinic inquiring about risk behaviors.
Review and analysis of the physical examination and blood chemistry data for the 652 persons who completed all components of the CAWHS survey—the “PE (physical examination) sample”—are alarming. Key indicators reveal a farm labor force with seriously compromised health conditions.

**Risk factors:** Nearly one in five males (18%) had at least two of three risk factors for chronic disease: high serum cholesterol, high blood pressure or obesity.

**High cholesterol:** A significantly larger fraction of male subjects in each of the three age cohorts (20–34, 35–44 and 45–54) had higher serum cholesterol than the U.S. adult population.

**High blood pressure:** Male and female subjects in the CAWHS sample exhibited substantially greater incidence of high blood pressure in comparison with the incidence of hypertension among all U.S. adults. High blood pressure was twice as prevalent among farm workers 20–34 years of age in comparison with U.S. adults in the same age grouping.

**Obesity:** Body Mass Index (BMI) readings placed 81% of male subjects and 76% of female subjects in the unhealthy weight category. Furthermore, 28% of men and 37% of women were obese. The incidence of unhealthy weight and obesity among the PE sample exceeded the scale for all U.S. adults, as well as Mexican-American adults surveyed by the Health and Nutrition Examination Survey III.

**Anemia:** The presence of iron deficiency anemia was significantly greater among male and female PE subjects than among the U.S. adult population. Anemia among males is about four times greater in the PE sample than among comparable groups of U.S. men. (See Figure 1: “CDC” refers to Centers for Disease Control and Prevention.)

**Dental problems:** Clinically determined dental deficiencies occurred with startling frequency. More than one-third of male subjects had at least one untreated decayed tooth, and nearly 40% of female subjects had at least one broken or missing tooth. Investigators also discovered widespread evidence of other dental problems, including gingivitis, impacted wisdom teeth, and poorly fitting dentures. (See Figure 2.)

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**Methods**

The CAWHS was constructed from a rigorously objective sample of participants who were randomly selected by means of a comprehensive, door-to-door household survey conducted in seven communities in different parts of California. The communities were selected to represent each of the state’s principal agricultural regions: Arbuckle (Sacramento Valley), Calistoga (North Coast), Cutler (eastern side of the San Joaquin Valley), Gonzales (Central Coast), Vista (South Coast), Mecca (Desert) and Firebaugh (western side of the San Joaquin Valley). Half of California’s agriculture workers are employed in the San Joaquin Valley.

Survey interviewers not only canvassed residences within those towns, but also thoroughly searched labor camps and informal dwellings found in the agricultural fields surrounding these communities. Interviewers asked 1,174 randomly selected agricultural workers to participate, of which 971 agreed—a response rate of 83%. Two-thirds (652) of the study participants completed all three components of the CAWHS—an overall participation rate of 56%.
Access to Health Care

The 971 CAWHS sample subjects, many of whom complained of persistent musculoskeletal pain and other maladies, were asked to report on access to health care and their use of services. The findings contrast sharply with comparable data for U.S. adults.

- **Uninsured workers:** Nearly 70% of all persons in the sample lacked any form of health insurance. Just 11.4% said they had health insurance through their place of employment, a figure far lower than in any other industry. All government programs combined (including Medi-Cal, Medicare, Healthy Families and MIA) covered only 7% of agricultural workers.

- **Low insurance participation:** Just 16.5% said their employer offered health insurance, but nearly one-third of even that small group of workers did not participate in the insurance plan that was offered, typically because they said they could not afford either the cost of premiums or the co-payments for treatment.

- **Medical visits:** Nearly 32% of male subjects said they had never been to a doctor or clinic in their lives, and only 48% of the male subjects said they had been to a doctor’s office or clinic during the previous two years. Women fared somewhat better; 37.5% reported a medical visit within the previous five months. (See Figures 3 and 4.)

- **Dental visits:** Half of all male subjects and 44% of female subjects said they had never been to a dentist. Those statistics are reflected in the high proportion of poor dental health among PE sample participants. Several survey participants reported having toothaches for as long as one year, treated typically with herbal remedies intended only to numb the pain. (See Figures 3 and 4.)

**Occupational Safety and Health**

Agricultural workers have experienced the consequences of “agricultural exceptionalism.” By deliberate actions of Congress, they were excluded from the protections of the Fair Labor Standards Act (FLSA), and from the National Labor Relations Act, laws that were intended to provide at least minimal standards of employment and collective bargaining rights for all other U.S. workers. Today, although FLSA requires overtime pay for all hours worked in excess of 40 per week, agricultural employers are completely exempted from this provision. Similarly, children under the age of 14 may not be employed in any industry except in agriculture, in which children as young as 12 may legally work. No age restrictions apply to children working on their family’s farm. More recently, Con-

**Characteristics of the CAWHS Sample**

The CAWHS sample of 971 participants is composed primarily of young, married, Mexican men with little formal education and very low annual median incomes, in the range of $7,500 to $9,999 from all sources. Their median age is 34, about 92% are foreign-born, 59% are married, 63% have six or fewer years of formal education, and only half say they can read Spanish well. About 96% described themselves as Mexican, Hispanic or Latino, and 8% are of indigenous origin.
gress has excluded workers employed on farms with fewer than 11 employees from the protections of the Occupational Health and Safety Administration (OSHA), unless the employer operates a farm labor camp or if an on-the-job fatality occurs. All other industries are subject to OSHA regulation regardless of the number of employees.

The survey findings correlated to those disparities.

- **Work-related injuries:** Some 18.5% of CAWHS subjects said they received compensatory payment under the California Workers Compensation Insurance System for a work-related injury at some point in their farm labor career. But only one-third of all CAWHS subjects were aware that their employer had such coverage, despite the fact that California law requires such coverage.

- **Pesticide safety:** Only 57% said they had received pesticide safety training.

- **Sanitation:** Although 88% reported that their employer provided toilets every day, only 82% had access to wash water every day, and just 79% said they were given clean drinking water and disposable cups daily. About 13% said they were given no drinking water.

### Summary and Conclusion

The report concluded that the risks for chronic disease, such as heart disease, stroke, asthma and diabetes, are startlingly high for a group that is composed primarily of young men expected to be in the peak of physical condition. Hired farm work is often very strenuous and surely qualifies as regular exercise.

Inadequate and improper diet is likely to be a major contributor to the unhealthful conditions observed among participating farm workers. The prevalence of poor nutrition among the labor force responsible for producing such a great abundance of healthy food in California is a tragedy and more than a little ironic.

The lack of health insurance, the inability of existing programs to meet the needs of this population, and the infrequency of health care visits demonstrate a breakdown of this nation’s health care system for hired farm workers.

“Despite the distressing news contained in the report, there is some evidence of progress at the policymaking level: new leadership and commitment to agricultural worker health and safety issues has been on a steady rise in the Legislature, resulting in several important bills signed into law by California Gov. Gray Davis,” observed Dr. Ross of The California Endowment.

Suffering in Silence is intended to serve as motivation for other public and private interests to respond accordingly with effective strategies to relieve the suffering of those who provide us with our daily food. The California Endowment convened a blue-ribbon task force of government and agribusiness leaders and health care providers to examine the issues and make programmatic and policy recommendations for publication in a report in April 2001.

### How to Obtain the Full Report

The full 40-page report encompasses data presented in far greater detail, accompanied by charts and graphs to illustrate comparative statistics. To obtain a copy of the report in its entirety, contact:

- **The California Endowment**
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  Woodland Hills, Calif. 91367
  (818) 703-3311
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