

**Policies to Improve the Health and Well-Being of  
California's Hired Farm Laborers**

Don Villarejo, PhD  
Marc Schenker, MD, MPH  
University of California, Davis

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## **Policies to Improve the Health and Well-Being of California's Hired Farm Laborers**

### **Executive Summary**

California farms have continued to expand production in recent years, posting a 10% increase in revenue in 2004, topping \$30 billion for the first time. Annual production of tree fruits and vegetables increased from 21 million tons in the early 1970s to 34 million tons in the early 2000s.

Labor demand has correspondingly increased, but the number of farmers and ranchers in the state has plummeted. Increasingly, farmers have come to rely on year-round workers whom they hire directly, and obtain short-term or temporary labor through intermediaries, such as labor contractors.

A new report from the U.S. Department of Labor's National Agricultural Workers Survey (NAWS) is the product of a collaboration between the California-Mexico Health Initiative (CMHI), the California Program on Access to Care (CPAC), and the U.S. Environmental Protection Agency Region 9 (USEPA Region 9). The report, which focuses exclusively on workers employed in perishable-crop agriculture, finds that California's hired farm labor force is mostly comprised of young, married, foreign-born (nearly all Mexican), low-income, Spanish-speaking men with low educational attainment. The survey was based on 2,344 off-worksites interviews of farm laborers conducted during 2003–2004. Nearly one of five of these farmworkers had arrived in the U.S. within the last two years, and all of these new arrivals came from Mexico.

The most significant development within the California farm labor market in recent times is the sharply increased flow of indigenous migrants from southern Mexico. According to the NAWS report, "Workers from (Mexican) states with high indigenous populations have characteristics that differ from other farmworkers, including a higher percentage of newcomers, migrants and with lack of authorization to work in the U.S."

The NAWS finds that 70% of laborers hired to work on perishable crops in California lack any form of medical insurance, not even Medi-Cal. A very large percentage of workers interviewed (83%) say that cost is the single largest barrier to obtaining health care services.

In addition, according to Cal/OSHA, "Agriculture is one of the most hazardous industrial activities in California. Farm workers suffer high rates of both fatal and nonfatal work-related injuries and illnesses." Statewide attention was directed to the seriousness of this problem in summer 2005 when four farm laborers died from acute heat stroke while picking crops.

The present report proposes seven policy initiatives to improve the health and well-being of California's hired farm laborers:

- Enhance participation of eligible farm laborers and their families in Medi-Cal, Healthy Families, and other health insurance programs.
- Enhance safety and labor law enforcement by adding a substantial number of new field inspectors to the staff of Cal/OSHA, County Agricultural Commissions, and the

Department of Labor Standards Enforcement, as well as creating an independent public oversight review board.

- Reduce the number of farm laborer families in poverty by eliminating the agricultural exemption from overtime pay requirements that affect all other industries; enforcing labor code regulations for tools and travel time; raising the state minimum wage to \$8 per hour.
- Implement a new program to expand and strengthen the public health workforce that serves farm families and hired farm laborers.
- Expand the state's commitment to housing for unaccompanied farm laborers by increasing long-term funding commitments and related measures.
- Focus attention on the health and safety impact of agriculture's increased reliance on labor contractors, especially through increased disclosure requirements.
- Initiate a substantial new effort to provide basic information to farm laborers about their rights and responsibilities under California and U.S. law.

## **Policies to Improve the Health and Well-Being of California’s Hired Farm Laborers**

This report, is organized into four sections. In the first two sections we review aspects of the agricultural industry that are important for the subsequent discussion of the workers themselves and how policy improvements can benefit their health. In the next section we review new and detailed information about the state’s farm laborers. In the final section we recommend policies to improve agricultural workers’ health.

### **California Agriculture—Still Growing After All These Years**

For more than 50 years, California has been the nation’s leading producer of agricultural commodities. Despite the challenges posed by runaway urbanization, inadequate irrigation supplies, weather problems, insect pests, and increasing regulation, in 2004 the state’s farms reported yet another record year for cash receipts from their sales of crops and livestock. Topping \$30 billion for the first time, Golden State farmers saw a 10% increase in farm revenue from 2003, reaching a total of \$31.8 billion [1].<sup>1</sup>

Many Californians think that the state’s agriculture is in decline, perhaps even threatened by extinction, as cropland is transformed into residential neighborhoods. But the most reliable data show that the opposite is the case: harvested cropland acreage has remained stable over the past quarter-century. Moreover, findings of the Census of Agriculture (conducted every five years by the U.S. Department of Agriculture’s National Agricultural Statistics Service) show that land in orchards (trees and vines), harvested vegetable acres, berry acreage, and greenhouse production have continued to increase at a fast pace with rising population. Table 1, which compares data for 1974 with those for 2002, demonstrates that the state’s agriculture has enjoyed growth that is unparalleled as compared with any other state [2, 3]. In 2003, California farms accounted for 60% of the value of U.S. fruits and 59% of the value of U.S. vegetables [4]. In addition, the state’s floriculture industry leads the nation in producing ornamentals [4].

**Table 1  
California Agricultural Land, 1974 and 2002**

	<i>1974</i>	<i>2002</i>	<i>% Change</i>
Harvested cropland (acres)	8,307,246	8,466,321	2
Land in orchards (acres)	1,769,821	2,871,626	62
Harvested vegetables (acres)	740,426	1,197,481	62
Berry crops (acres)	11,786	36,248	208
Greenhouse (sq. ft. under glass)	98,459,000	208,170,829	111

*Source:* Census of Agriculture, U.S. Department of Agriculture, National Agricultural Statistics Service (NASS).

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<sup>1</sup> Numbers in brackets refer to items listed in the References section.

Prices of agricultural commodities tend to fall when increases in output exceed gains in demand. For that reason, it is also useful to examine the record of physical production (usually measured in tons). During the same period, 1974–2002, total annual production of tree fruits and vegetables in the state grew from 21 million tons to 34 million tons, based on comparing the three-year averages for 1973–1975 and 2000–2003. Thus, the increase in physical output was 64% during this period [5].

A number of field crops have not fared as well as fruits, nuts, berries and vegetables. The state's output of barley, edible dry beans, cotton, and sugar beets have declined sharply, especially in the past five years. On the other hand, the Golden State has become the nation's leading producer of milk, having surpassed Wisconsin several years ago. Today, one out of every five U.S. milk cows is in California.

Some fruits and vegetables have not experienced the kind of growth described above. Since 2000, bearing acreage of raisin and table grapes declined by about 43,600 acres [6]. Garlic for processing as well as asparagus are under considerable pressure as a result of sharply increased imports from China and Peru, respectively.

A second factor that has already resulted in agricultural production cutbacks in some regions is competition for water as urban demand for water soars. The Imperial Valley has entered into an agreement to sell some of its Colorado River entitlement to the San Diego County Water Authority, thereby fallowing up to 40,000 acres of farmland. The largest land-fallowing program resulting from drainage problems and inadequate water supplies is in the Westlands Water District, on the west side of the San Joaquin Valley, where more than 50,000 acres have been permanently fallowed and as much as another 150,000 acres may be retired in the next several years [7].

As in the rest of the nation, the concentration of farm size in California accelerated during the past decade and a half. The Census of Agriculture began reporting an objective measure of this trend in 1987. The fewest number of farms that accounted for 75% of total production (measured by farm cash receipts) declined from 5,904 (7.09% of all farms) in 1987 to just 4,419 (5.55% of all farms) in 2002 [8]. Increased farm size is likely associated with increased numbers of year-round hired workers and supervisors.

At the other size extreme, in 2002, California's 36,662 smallest farms—totaling nearly half (46%) of all farms, each reporting less than \$10,000 in farm cash receipts—accounted, in aggregate, for less than one-half of 1% (0.39%) of overall farm sales [9]. Nearly all of these small farms are most accurately described as “part-time” or “hobby” enterprises.

While greatly expanded acreage of fruit and vegetable production presented an opportunity for large numbers of new farmers to enter the business, farm size concentration increased sharply in these commodities as well during the period 1974–2002. By 2002, some 58% of all harvested vegetable acres were in farms with at least 1,000 acres of vegetables [10]. In contrast, the total amount of harvested vegetable acres in farms with less than 100 acres actually declined by 6% during this period [10]. Similar findings obtain for tree fruit and nut farms: the number of farms reporting 500 acres or more of land in orchards rose from 370 in 1974 to 935 in 2002 [10]. And the total orchard acreage controlled by these large tree and vine farms increased from 509,440 to 1,223,625 [10].

## **California Farm Labor—Increasing Demand for Hired Workers**

Three types of workers supply farm labor in California: farmers, unpaid family members, and hired workers. For that reason, all three groups must be considered as farmworkers. This report is primarily concerned with the last-named group: hired farmworkers, irrespective of whether their employer is a farm operator or an intermediary such as a farm-labor contractor or packer/shipper.

The available data indicate that the farmer and unpaid family-member share of all labor supplied to California farms has declined over the past half-century, from about 40% in 1950 to less than 20% by 1990 [11]. More recently, the Census of Population and Housing finds that the number of California residents who indicated their occupation was “farmer or rancher” has continued to fall, from 39,271 in 1980 to 36,814 in 1990, then plummeting to just 26,770 in 2000 [12]. This decrease of the number of farmers and ranchers is consistent with the sharply increasing size concentration discussed above. Despite more land planted with labor-intensive crops—fruits, vegetables, ornamentals—the largest farms control ever more acreage and fewer farmers tend the land.

Hired workers are supplying an ever-increasing share of the labor needed on California farms. According to the Employment Development Department (EDD), the annual average of monthly employment on the state’s farms grew from about 314,670 in the period 1975-77 to 392,791 in 1999–2001 [13, 14]. In the past three years (2002–04), there has been a small but noticeable reduction in reported farm employment, to 368,666 [14]. “Employment” refers to the number of full-time-equivalent (FTE) workers. Thus, two individuals who each work about 1,000 hours picking crops are equivalent to just one FTE, and count only as “one” in the employment figures.

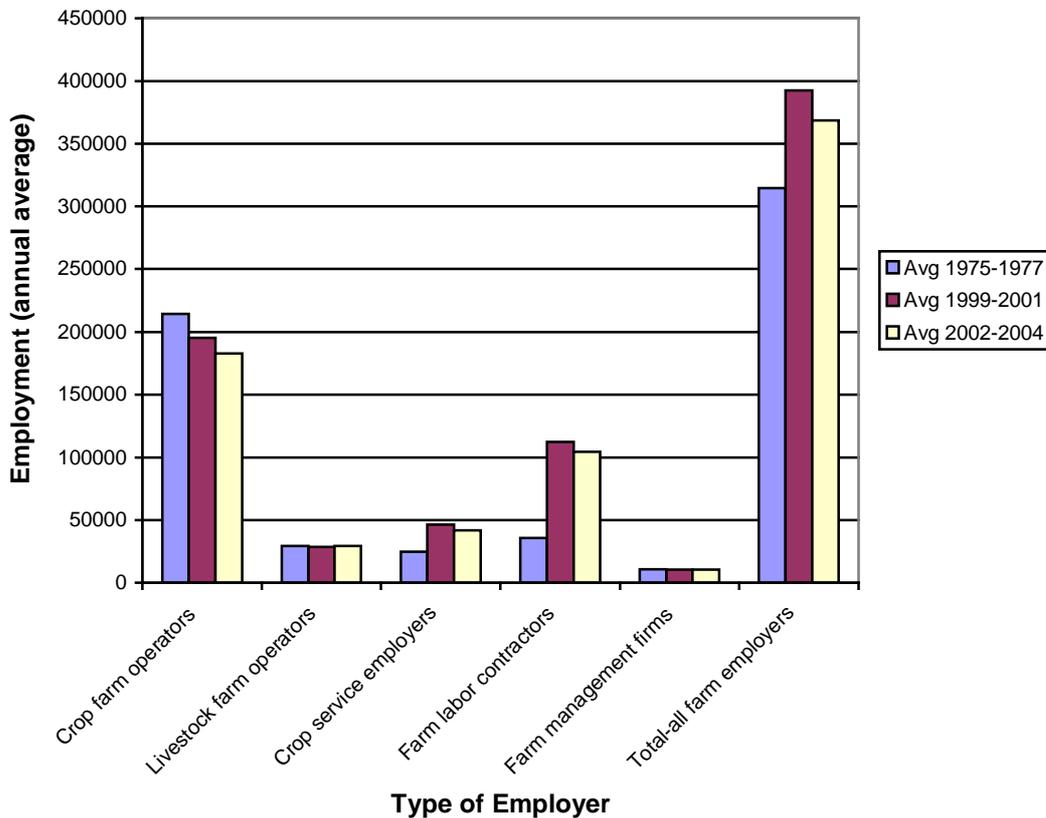
These EDD figures are likely to be somewhat larger than the actual employment of farm-production workers. First, employment and wage reports refer to all employees of a farm, including management, supervisors, mechanics, bookkeepers, secretaries, attorneys, and other non-production workers. Second, an increasing share of employment totals in agriculture represent workers in “agricultural services,” which includes an unknown but large number of off-farm, post-harvest workers. Little is known about this sector; this category of businesses has not been surveyed since the 1978 Census of Agriculture.

These major trends in farm employment, by type of employer, during the period 1975–2004 are shown in Figure 1. The figure shows annual average employment for each of three-year periods within the five major employer categories: crop farm operators, livestock farm operators, crop service employers, farm labor contractors, and farm management companies. Also shown is the total reported farm employment (the columns at the far right). Clearly, from 1975–1977 to 1999–2001 farm employment increased substantially, and then fell somewhat during the period 2002–2004.

The single most important development during this period has been the rapid increase of employment by farm labor contractors. EDD reports that annual average employment by labor contractors increased from 35,490 in 1975–1977 to 112,233 in 1999–2001 [13, 14]. But a recent analysis of 2000 EDD data finds systematic under-reporting of FLC employment by at least 17% [15]. Equally significant, between 1974 and 2002, the number of farms reporting contract labor production expenses sharply increased, from 13,330 to 24,716 [16].

A second, less-studied feature of the farm labor market is the increase of the number of year-round or regular employees directly hired by farm operators. From 1974 to 2002, the number of direct-hire workers reportedly employed for 150 days or more increased by 48%, from 136,216 to 201,852 [17]. In part, the increase in year-round or regular employment reflects the replacement of farmer and unpaid family labor with hired labor. Also, California's mild climate has made it possible to develop more year-round production, such as strawberries, lettuce, and ornamental products, and encouraged breeding of early or late-season varieties of many crops. The growth of year-round employment, together with the increased reliance on labor contractors, has allowed many farms to evolve a new form of obtaining needed labor: more direct-hire regular employees and reliance on labor contractors to furnish seasonal workers instead of hiring them directly.

**Figure 1. Hired Farm Worker Employment, by Type of Employer California, 1975-2004, EDD**



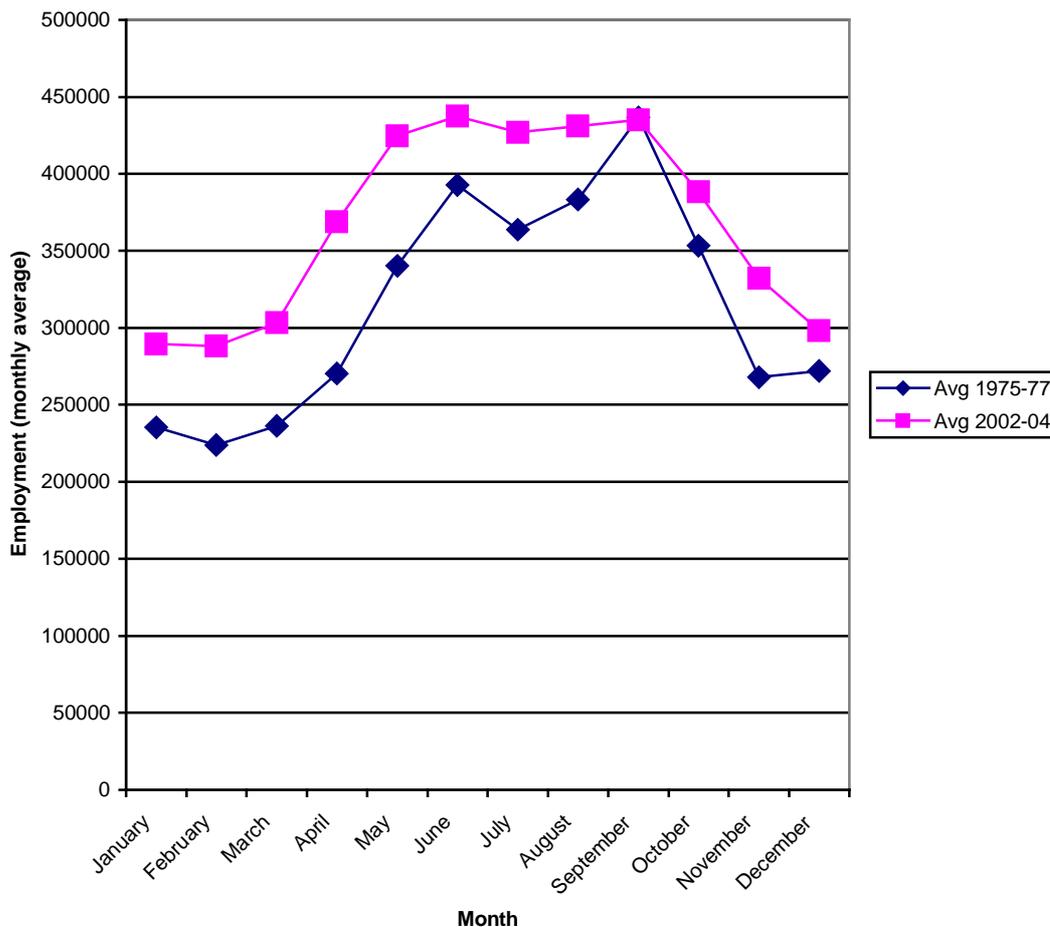
Employment figures are not equivalent to numbers of individuals. Many farm jobs are short-term, and some workers may be employed on several farms during the course of a single year. This makes interpretation of employment data difficult, especially with regard to estimating the number of persons who work as hired farm laborers in the course of a year. Using available

employment data alone, it is not possible to estimate the actual number of persons employed as hired farm production workers in a single year.

Important insights into the pattern of employment of hired farmworkers can be obtained from monthly employment reports, and how they have changed over during the past quarter-century. Figure 2 shows monthly farm employment reports for the periods 1975–1977 and 2002–2004.

What is especially interesting in Figure 2 is that reported employment has increased in every month of the year except September, and a single prominent peak in 1975–1977 (September) has been replaced with a roughly five-month period of peak employment in 2002–2004 (May–September). Thus, there is no longer a “peak season” of short duration, and there is a great deal more work during nearly all of the year, even during what some had thought of as “off-season.” This finding is consistent with the increase in year-round or regular employment described earlier. It is possible that the seasonal farm labor force is becoming increasingly segmented between ‘stable’ or ‘regular’ workers, and ‘peripheral’ workers.

**Figure 2. Hired Farm Worker Employment by Month, California  
Avg 1975-77 & Avg 2002-04, EDD**



## **Hired Farmworkers—Findings from the National Agricultural Workers Survey**

A recently released report, the result of a collaboration between the California-Mexico Health Initiative (CMHI), the California Program on Access to Care (CPAC), and the U.S. Environmental Protection Agency Region 9 (USEPA Region 9) provides thorough and up-to-date findings about the state's farm labor force [18]. Based on face-to-face, off-worksites interviews with 2,344 California farm laborers during 2003–2004 conducted by the National Agricultural Workers Survey (NAWS) of the U.S. Department of Labor, the report not only provides information about current workers, but also furnishes comparative findings of the NAWS for California in successive two-year intervals dating back to 1989–1990 [19].

The NAWS focuses exclusively on workers employed in perishable agricultural crops. Livestock workers are deliberately excluded. Dairy, poultry, and other livestock farms employ about 8% of farm production workers in California. Hence, the new report reflects a cross-section of the 92% of farm employment represented by crop activity.

The hired labor force for crop farms is mostly comprised of young, married, foreign-born (nearly all Mexican), low-income, Spanish-speaking men with low educational attainment who do not migrate to find crop work. The proportion of workers who are undocumented or who are indigenous migrants has increased significantly from 1989–1990.

The most significant recent development within the California farm labor market is the sharply increased flow of indigenous migrants from the southern Mexican states of Chiapas, Oaxaca, Guerrero, Puebla (Northern Sierra region), and Veracruz [20]. The new NAWS report is particularly useful in the highlighting findings that inform aspects of this migration.

All observers agree that indigenous migrants are the fastest growing component of the state's farm labor force. According to the NAWS report, "Workers from (Mexican) states with high indigenous populations have characteristics that differ from other farmworkers, including a higher percentage of newcomers, migrants and with lack of authorization to work in the U.S."

Estimating the size of the indigenous migrant population within the hired farm labor force is difficult because only a relatively few choose to self-identify as "indigenous" for reasons likely associated with their experience of discrimination within Mexico. Thus, while NAWS finds that 16% of California's hired farmworkers for perishable crops are indigenous migrants, this estimate is based only on individuals' self-reported origin within one of the Mexican states with large indigenous populations. It would be very helpful in seeking to clarify the size of the indigenous worker population if the NAWS would record the home village and municipio of each participant in the survey.

One of the more important findings of the NAWS is that 18% of California's hired crop farmworkers had arrived in the United States within the last two years, and all (100%) came from Mexico. The proportion of these "newcomers" has mushroomed since 1989–1990, when only 2% said they had been in the U.S. for less than two years. An estimated 38% of newcomers are indigenous migrants, underscoring the significance of increased attention in the NAWS to this subgroup. Some 57% of the state's hired crop farmworkers said they were undocumented. Among newcomers, however, the figure was 99%, and among indigenous migrants it was 85%. Most newcomers are quite young, including significant numbers of teenagers.

The proportion of workers who migrate has fallen sharply in recent years. Just one-third (33%) were "migrant" workers—those who traveled more than 75 miles to obtain a job in

agricultural production. The overwhelmingly large share of those who migrate (85%) are persons who travel from Mexico or Central America to find farm work in a single location, and then return home after the job has ended. Only 15% of workers who migrate say they “follow-the-crop.” Among newcomers, nearly all (98%) migrate to find work. Of those who report residing in the U.S. for three or more years, just 13% report that they still migrate. It is likely that many who migrate to seek work are ‘peripheral’ participants in the California farm labor market.

Nearly two-thirds (61%) of California’s hired crop farmworkers said they worked for their current employer on a seasonal basis, and 20% said they were employed year-round. This finding is consistent with the previously noted increase of direct-hire, year-round, or regular workers (those employed by a farm operator for 150 days or more) and with the rise of employment by labor contractors.

One of the most striking findings of the NAWS is that very nearly half (49%) of hired crop farmworkers did not reside with even a single member of their nuclear family while working on California farms. Among males, 60% were unaccompanied by any member of their immediate family, whereas just 18% of females were unaccompanied.

Most workers (70%) lack any form of health insurance, including Medi-Cal. When asked about barriers to obtaining health care services, 83% identified cost as the single most important factor.

Nearly two-thirds (62%) of workers report their place of residence to be a single-family home. About a quarter (29%) said they reside in an apartment, six percent live in mobile homes, two percent live in dormitory or barracks-style housing, and one percent live in duplexes or triplexes. Only three percent of workers live on their employer’s farm, and just one percent live off-farm in housing owned by their employer.

### **NAWS Occupational Health Findings**

Most workers (86%) reported that they had received employer training or instruction in the safe use of pesticides within the previous 12 months. The proportion of indigenous migrants who had received this training was lower, about 81%. Only 5% reported having loaded, mixed, or applied pesticides within the last one-year-period.

Workers were asked a series of questions regarding injuries related to their crop work: musculoskeletal pain, skin conditions, and respiratory problems. The NAWS finds that about one-quarter (24%) of hired crop farmworkers said they suffered from at least one musculoskeletal problem, 12% said they experienced at least one skin problem in the past 12 months, and, apart from symptoms associated with having a cold, in the previous year, one-sixth (16%) said they had watery or itchy eyes and 14% said they had runny or stuffy noses. The survey could not definitively determine if these complaints were the direct result of workplace exposures, or whether other factors played a significant role. But most workers said the respiratory symptoms were brought on or made worse by airborne dust, dirt, or chemicals while they were working in the fields.

## **Farmworker Health Care and Policy Recommendations**

### **1. Health Insurance**

#### **Enhance participation of eligible farm laborers and their families in Medi-Cal, Healthy Families, and other health insurance programs.**

The NAWS report finds that 70% of California's hired farmworkers lack any form of health insurance, but also that the single most important source for those with coverage (50%) is through their employer [18]. Government programs provided health insurance for only 35% of workers who had coverage. On the other hand, for hired farmworkers with spouses residing with them in California, the most important source (44%) of spousal health insurance was government assistance programs.

Of great significance is that more than three-fourths (79%) of hired farmworkers who have children residing in California report that their children had health insurance, mostly through government programs. As recently as four years earlier (FY 1999–2000), it was found that only half as many farmworker children (38%) were covered by any form of health insurance [19]. Clearly, the substantial outreach to enroll eligible children in appropriate government programs is a major success for all of the agencies involved.

A key feature of the current Medi-Cal program is that undocumented pregnant women are eligible for "Emergency Medi-Cal" that provides both prenatal care and full coverage up to four months after their baby is delivered. Thus, Medi-Cal has been a critical component of health care even for undocumented women.

However, some workers who migrate may face access barriers. A number of farm operators who grow crops as diverse as strawberries and leaf lettuce routinely move their entire farming operation across hundreds of miles within California as the seasons change. For example, many lettuce producers grow in the desert areas near the Mexican border during the winter months; then move production to the western San Joaquin Valley (near Huron) for about four weeks during late March; in early April they move production again to coastal valleys, primarily in the Salinas area, for the spring and summer; return production in mid-autumn to the western San Joaquin Valley for another four-week interval; and finally, begin harvesting in the desert areas when winter sets in.

### **2. Labor Laws**

#### **Expand and strengthen enforcement of safety and labor laws in agriculture by adding a substantial number of new field inspectors to the staff of Cal/OSHA, County Agricultural Commissions, and the Department of Labor Standards Enforcement. Create a seven-member public oversight review board to monitor and report annually on enforcement efforts in agriculture.**

It is well established that agriculture ranks with mining and construction as one of the three industries with the highest rates of occupational fatalities [21, 22]. According to Cal/OSHA, "Agriculture is one of the most hazardous industrial activities in California. Farmworkers suffer high rates of both fatal and nonfatal work-related injuries and illnesses" [23]. The seriousness of these hazards was underscored during the summer 2005 heat wave, when attention was drawn to four deaths among the state's hired farmworkers who suffered heat illness while hurrying to pick crops [24].

There is persuasive evidence that vigorous enforcement of occupational safety laws reduces workplace injuries and illnesses throughout industry. Within California agriculture, the Cal/OSHA Agricultural Safety and Health Project (ASHIP) initiative clearly played a positive role in improving field sanitation for hired farm laborers [25]. In the new NAWS report, nearly all workers (99%) say their employer provides both toilets and water for hand-washing. Similarly, some 96% of workers report their employer provides drinking water and cups every day. These findings represent a substantial improvement above the levels of compliance with Cal/OSHA field sanitation regulations (83% - 91%) found by NAWS in 1989-90 [19].

Similarly, following the horrific deaths in August 1999 of 13 Fresno County farm laborers when the unsafe labor van in which they were riding was demolished in a collision with a tomato truck, the Legislature, Cal/OSHA and the Highway Patrol developed a new licensing and inspection program for farm labor vehicles. The program included, for the first time, a seat belt requirement, and regular inspections for vans with more than 10 passenger seats. Most importantly, funds were earmarked for inspecting such vehicles and enforcement. The fall-off in farm-labor vehicle accidents in subsequent years demonstrates again the importance of enforcement as an injury prevention tool.

The California Workers Compensation Insurance Rating Bureau examined the frequency of non-cumulative injury Workers Compensation claims for all industries in the state from 1989–1998, and found that Cal/OSHA enforcement and education was the single largest factor contributing to reductions in claims resulting from these types of injuries [26].

The available evidence indicates there has been little progress in reducing the prevalence of both fatal and nonfatal work-related injuries to California’s hired farmworkers in the recent past. Although the annual number of fatal occupational injuries or illnesses for this population varies from year-to-year, the rating bureau found that the number who lost their lives to occupational injuries or illnesses was relatively constant in successive five-year periods starting in 1988: 221 during 1988–1992, 237 during 1993–1997, and 203 during 1998–2002 [27].

In an annual Department of Industrial Relations survey of employer reports of nonfatal occupational injuries and illnesses, the rate in 2003 was 6.1 per 100 full-time-equivalent crop farm laborers per year—the same as the rate during the latter half of the 1990s [28]. Other investigators report rates of nonfatal injury and illness among the state’s hired farm laborers to be in the range of five to 10 per 100 full-time equivalent workers per year [29, 30].

In the August 1999 labor van accident described earlier, it was discovered that all of the workers were compelled to pay for rides to and from work in the poor-quality van as a condition of employment, and were also compelled to cash their weekly paychecks at a single store for a fee [31]. According to court records, the labor contractor’s foreman had indicated that “...whoever works in my crew has to pay me for the ride and anyone who doesn’t like it can go work somewhere else.”

This type of extortion is both illegal and widespread, as reported by knowledgeable observers in the farming areas of the Central San Joaquin Valley. The new NAWS report doesn’t provide direct information about the extent of this worker exploitation, but the accompanying data tables include findings indicating that 27% of all workers said they paid a grower/contractor *raitero* for their ride to work [19].

**Table 2**  
**Cal/OSHA Inspections of Farm Sites by Employer's Industry**

**Four Calendar Years 1999–2002**

<i>Industry</i>	<i>Inspections per Year</i>	<i>Inspections with Serious Violations per Year</i>	<i>Percent Inspections with Serious Violations per Year</i>
Licensed farm labor contractor	398	42	10.6
Crop farm operator	408	50	12.3
Livestock farm operator	63	22	34.9
<i>Total</i>	<i>868</i>	<i>114</i>	<i>13.1</i>

**Two and Two-Thirds Calendar Years 2003–2005 (Through 8/18/2005)**

<i>Industry</i>	<i>Inspections per Year</i>	<i>Inspections with Serious Violations per Year</i>	<i>Percent Inspections with Serious Violations per Year</i>
Licensed farm labor contractor	153	15	9.8
Crop farm operator	165	24	14.5
Livestock farm operator	24	8	33.3
<i>Total</i>	<i>342</i>	<i>47</i>	<i>13.7</i>

*Source:* Web site for U.S. Department of Labor, Occupational Safety and Health Administration, Inspection Data, Inspections by SIC. (<http://www.osha.gov/pls/imis/industry.html>). Corrections to SIC classification applied by the authors.

California has the strictest set of regulations governing agricultural workplace health and safety in the nation. Nonetheless, evidence suggests there has been a substantial fall-off of enforcement efforts in recent years. Although Cal/OSHA is responsible for inspection and compliance with workplace health and safety conditions, Table 2 shows that the number of Cal/OSHA farm-site inspections fell from an average of 868 per year in 1999–2002 to just 342 inspections per year since then. Of equal concern is that 114 serious violations were found per year during 1999–2002, but only 47 per year were found in the later period, even though the annual rate of inspections with serious violations rose slightly.

A detailed year-by-year and industry-by-industry examination of these findings demonstrates that Cal/OSHA vigorously pursued dairy-farm inspections in 2001, finding 74 cases of serious violations in just 139 livestock industry inspections, a rate more than five times higher than found in any other farm sector. But in 2002, after strident protests from industry, the dairy inspection program inexplicably ended. In 2001, there was one reported occupational fatality among hired dairy farm workers; in 2002, there were three such fatalities.

Farm employers have been faced with surging premium costs for their Workers Compensation insurance. Unfortunately, these cost increases appear to have little relationship to an employer's actual safety record. Aside from the sharp increase in premiums associated with the post-2000 stock market decline, Department of Industrial Relations assessments of the costs of paid Workers Compensation demonstrate that California system's overhead and related expenses are in the range of 32% to 34% per year [32]. In contrast, the overhead and related costs of several other states with universal Workers Compensation requirements, such as Washington and Wisconsin, are only half as large [33]. Unfortunately, it is simply not possible to extract only the data on farm employers regarding these unconscionable overhead costs.

California's pesticide safety regulations also are widely recognized to be much stricter than the federal Worker Protection Standard, although evidence shows that enforcement is still too weak. County Agricultural Commissioners have local responsibility for conducting inspections for compliance with pesticide safety regulations. An as-yet unreleased Department of Pesticide Regulation audit of field compliance during 1997–2001 showed "...lower than acceptable levels of compliance throughout the state, and that compliance for growers was below that for pest control businesses," as reported by the Legislative Analyst in reviewing the 2002–2003 state budget [34].

We recommend a substantial strengthening of workplace safety and labor-law enforcement and education by the addition of a substantial number of new field inspectors to the staff of Cal/OSHA, the County Agricultural Commissions, and the Division of Labor Standards Enforcement.

In addition, we recommend that the Legislature appoint a seven-member public oversight review board to provide independent monitoring of these enforcement efforts: three from industry, three from labor, and one chosen by unanimous consent of the labor and industry representatives. This public review should include an annual report to the Legislature of the effectiveness of agricultural enforcement efforts.

### **3. Reduce Poverty**

**End farm employers' exemption from the overtime pay requirements of all other industries; enforce labor-code provisions related to tools and travel time; and raise the state minimum wage to \$8.00 per hour.**

Socioeconomic status is among the most important variables in determining whether an individual has appropriate access to healthcare services. California's hired farm laborers are among the poorest workers in the state, with wages averaging half or less of what workers in manufacturing or construction earn.

NAWS participants were asked to describe what they perceived to be the barriers they face in obtaining access to healthcare services. According to a very large share of workers (83%), the most important barrier is cost. This is not surprising, since the overwhelming majority of workers lack any form of health insurance. When asked who paid for their most recent healthcare visit, 41% said they had paid their bill 'out-of-pocket.'

Only 11% of workers cited lack of work-authorized immigration status as a barrier, despite the fact that 57% said they were undocumented. Even among undocumented workers, just 19% identified this as a barrier to obtaining care.

Overall, 22% of hired crop farmworkers in California had incomes below the federal poverty level. Among families that included at least one of these farmworkers, 24% were in poverty by the federal standard. However, these figures are based on an analysis that excludes the 17% of all workers, mostly newcomers, who reported no U.S. income in the calendar year prior to the NAWS interview. If the incomes of newcomers in the first 12 months following their arrival in the U.S. were tabulated and included, the proportion of hired crop farmworkers determined to be in poverty would surely be substantially greater.

Workers engaged in primary agricultural activities (farm laborers) were excluded from the protections of the Depression-era Fair Labor Standards Act; all subsequent federal labor legislation has followed this model of exempting farmworkers. We propose a series of measures to reduce the number of farm laborer families living in poverty. First, farm employers are currently exempt from paying overtime after eight hours of work in a day, or after 40 hours in a week. California should require farm employers to meet the standard of all other industries. Second, the NAWS data show that as many as 10% of farm laborers are required to furnish the tools used in their work [19]. The labor code requires that such workers be paid twice the state minimum wage. Thus, vigorous enforcement of the labor code could improve the earnings of a substantial number of workers. Finally, raising the state minimum wage to \$8.00 per hour would enable many farm laborers to earn higher incomes. At present (December 2005), five states have a state minimum wage higher than California's \$6.75 per hour (Alaska, \$7.15; Connecticut, \$7.10; Oregon, \$7.25; Vermont, \$7.00; Washington, \$7.35).

Whether paying 'out-of-pocket' for medical services or purchasing health insurance that may not have been previously affordable, the increased income obtained from adoption of these measures would provide many workers with options that are not presently available to them.

Some object to such an increase in the minimum wage, arguing that it would impair the ability of California businesses to compete by raising employment costs. However, a careful economic analysis shows that the state would have a substantially smaller burden of social program costs because the boost in family incomes would make many less likely to meet existing income qualification tests [35]. The main finding is that raising the state minimum wage to \$8 per hour would yield about \$2.7 billion per year in public program savings. Presumably, the California economy as a whole would benefit from lower social costs.

Another objection to increases in the state minimum wage is that some workers would be displaced as employers sought to control costs. The state Department of Industrial Relations has analyzed this issue by examining the effects on employment of the 2001 increase in the state minimum wage, and found that the workers most likely to be displaced were young teens, who would probably gain more by remaining in school on a full-time basis [36].

#### **4. Expand and Strengthen the Public Health Workforce**

**Establish new, ongoing surveillance of the health status of hired farmworkers and their family members, and disseminate more broadly the health data already being collected; develop a farm labor health research agenda; and provide independent, third-party evaluation of federally funded community and migrant health clinics.**

Despite the fact that the state's agricultural industry continues to expand, as measured by value of production or physical output, many communities in which hired farmworkers reside have very limited health resources, if any. An analysis of the state's Medical Service Study Areas (MSSAs), based on the 1990 Census of Population and Housing, finds that MSSAs in which hired farm laborers are predominate "...have the poorest access to health care services of all California communities" [37].

The addition of new medical resources and the expansion of community clinic services in some of those farmworker MSSAs in the past 14 years has led to substantial improvements in those communities. Of the 23 farmworker MSSAs identified in the previous report as having an Index of Medical Underservice (IMU) below the threshold for designation as a Medically Underserved Area (MUA), nine have seen their services improved sufficiently to no longer be eligible for MUA designation [38].

On the other hand, six other farmworker MSSAs have been added to the roster of the state's Medically Underserved Areas, and an additional six communities in which farm laborers predominate have been found to have Medically Underserved Populations. In all six of these latter communities, the low-income population was found to be medically underserved.

Thus, the gains have been more modest than seemed to have been the case at first sight: nine communities appear to have had improvements in available medical services but six have experienced deterioration of services. And in six other communities, not all of which are Medically Underserved Areas, low-income persons, including a great many farm laborers, comprise Medically Underserved Populations.

There is also persuasive evidence that existing public health resources are struggling to meet new challenges found among the farmworker population, particularly with respect to the spread of infectious disease and the deterioration of chronic health status. New research has found significant warning signs about both problems.

The California Agricultural Workers Health Survey (CAWHS) survey found evidence of elevated levels of obesity, high serum cholesterol, and anemia among nearly all age cohorts of California's hired farmworkers compared with the U.S. population [39]. The associated risk of chronic disease, such as Type 2 diabetes, is well known to be elevated among Hispanic residents of the U.S.

In addition to tuberculosis, other infectious diseases are elevated in the hired farmworker population. Some of these infections reflect diseases endemic to communities or countries of origin that are carried into the U.S. A recent report found that the prevalence in the blood serum (seroprevalence) of the tapeworm, *T. solium* Cysticercosis (1.8%) and *T. Solium* Taeniasis (1.1%) were highest among hired farmworkers in a sample of Hispanic residents of Ventura County, California [40]. The seroprevalences were only seen in adults, and prevalences were similar to what is found in Latin American countries where the disease is endemic.

HIV and AIDS are another concern because many hired farmworkers engage in high-risk behaviors, particularly solo males. The CAWHS survey documented elevated rates of many high-risk behaviors among men and women associated with STDs [41]. These include sex with IV drug users, sex with prostitutes, and low frequency of condom use [41].

The CAWHS survey and other studies also show elevated rates of dental disease [39]. This is consistent with the lack of preventive health care in this population, most significantly due to the economic barriers to receiving nonemergency health services.

Another factor affecting health is associated with acculturation: changes that result when groups of individuals having different cultures come into continuous first-hand contact, which leads to changes in the original cultural patterns of either or both groups. Recently, among immigrant farm laborers in the U.S., several health-related behavioral changes have been associated with increased duration of residence in the U.S., and with specific acculturation scales [42]. For example, studies of Hispanic immigrant populations, including hired farmworkers, show that adverse health behaviors are associated with acculturation, including cigarette smoking, alcohol use, illegal drug use, and unhealthy diet [43, 44]. Some of these findings identify sharp differences in behaviors along gender lines. Caution in interpreting such findings is warranted because studies of acculturation impacts that rely on self-reported behaviors are difficult to carry out and may yield unreliable data.

The CAWHS survey also found a relationship between the prevalence of obesity and the length of time foreign-born hired farmworkers have lived in the U.S. [37]. The prevalence of obesity in each of three age groups was greater among those who had been U.S. residents for 15 years or longer as compared with those who had been in the country for less than 15 years.

We are convinced that a substantial new initiative is needed to encourage the expansion and strengthening of the segment of California's public health workforce that serves hired farmworkers and farm families. This new effort should enlist practitioners, educators, and researchers, and seek both public and private support. Such an initiative to increase public health workers will address health issues in the entire farmworker population, focusing on preventive efforts that are more cost-effective than expensive medical interventions.

Using such modern tools as public health education and social marketing campaigns that are linguistically and culturally appropriate, these efforts could reduce the prevalence of adverse health behaviors among this population. This is particularly important because many health behaviors worsen with increased time and acculturation of immigrant hired farmworkers. The public health workforce is responsible for county health departments, for identifying illness clusters and epidemics among farmworkers, and also for staffing state laboratories that are invaluable in the fight against infectious and toxic diseases.

The University of California Office of the President recently released a report on the state's public health workforce [45]. Among the findings is that recruitment of adequate numbers of public health professionals in California is hampered by the limited size of the applicant pool, among other factors. The report also finds that "Rural communities appear to be hardest hit by this challenge."

An important new task of this initiative should be the development of ongoing surveillance of this population's health status. Such an effort should include dissemination of health data already being collected, development of a farm labor health research agenda, and collaboration with agencies and organizations to undertake targeted surveys.

Finally, this initiative should include independent, third-party evaluation of the effectiveness of federally funded community and migrant clinics. The NAWs report finds that only 7% of current farm laborers use the migrant health clinics to obtain health services.

## **5. Housing for Unaccompanied Farm Laborers**

**Create and ensure permanent, long-term funding commitments (federal, state, county, private sector) to the farm labor housing endowment, both to develop new housing and also improve existing housing and living conditions. Eliminate barriers to improving farmworker housing and living conditions through changes in code enforcement law, planning and zoning laws, fair housing, and anti-NIMBY laws; and eliminate inconsistencies between growth limits and the need for additional housing for hired farmworkers. Nonprofit organizations that seek to develop such housing should be held to local prevailing wage standards, not to those with the highest wages in the state.**

The NAWS report describes the distribution of the types of dwellings in which crop farm laborers reside: detached single-family homes, apartments, trailers, and so forth. However, the report does not seek to describe living conditions, such as the extent of crowding or the possible lack of basic sanitation facilities.

Numerous local studies in recent years have underscored the relative lack of affordable housing for farm laborers, and especially for unaccompanied male workers. Many farm operators have torn down existing on-farm labor camps, in part because of increased scrutiny and costly regulations, and in part because they have been able to attract sufficient labor without offering housing. The depletion of the stock of affordable housing for seasonal workers, together with the sharp rise in housing costs for all Californians, has created a severe housing crisis for many farm laborers and their families.

The CAWHS documented the extent of this problem: 42% of dwellings occupied by farm laborers were shared with unrelated persons or families; 30% of dwellings were classified as “informal,” i.e., lacking both a recognized postal address and listing in the County Assessor’s roll; more than half of farmworker dwellings were found to be “crowded” by currently accepted standards; workers residing in dwellings lacking sanitation facilities were more likely to report persistent diarrhea lasting for more than three days, as compared with laborers whose dwellings included these facilities [37, 46].

California communities are frequently unwilling to accept farmworker housing, fearing that local property values might be affected or that the presence of low-income residents might have other adverse effects. NIMBY-like community reactions have often blocked otherwise well-planned housing initiatives. Similarly, antigrowth or environmental regulations have restricted new developments in many communities.

The Joe Serna Jr. statewide farmworker housing initiative made a substantial new commitment to improving the stock of dwellings intended to serve this population, but more resources are needed. Many counties with increased farm laborers lack any public camps for farm laborers or sufficient private camps to house seasonal workers, let alone affordable housing for year-round workers.

Others, on the other hand, such as Napa County, find that local housing initiatives have left many beds empty in labor camps, even at peak season. Careful examination of these circumstances leads to the hypothesis that some workers prefer to live in the most modest of circumstances in order to save money to send to Mexico to support their families. The CAWHS

found that workers living in the back seats of automobiles in a parking lot in Mecca, California, were simply avoiding paying rent during the brief six-week table-grape harvest [37].

Any new initiative should examine successful models of housing that serves unaccompanied male farm laborers in California and across the nation. For example, the California Human Development Corporation successfully operates a labor camp for unaccompanied male workers near Calistoga in Napa County. Another model is provided by the award-winning Everglades Community Association in Homestead, Florida, which combines single-family homes with a large number of trailers to house unaccompanied male workers.

We recommend a multilevel strategy to address this complex issue. On the one hand, funding through long-term bonds can provide the level of resources needed to assist local communities. Persistent advocacy may be required to overcome hard-core resistance in some communities.

## **6. Requirements for Labor Contractors**

**Farm labor contractors now dominate California’s agricultural employment system, which has negative effects on farmworkers’ health and safety. We therefore make the following recommendations:**

- a. Contractor licensees that are general or limited partnerships, corporations, or limited liability companies should be required to disclose the names and physical residence addresses of all partners, major stockholders (owners of 5% or more of corporate stock), directors, officers or members, respectively, as part of the licensing process. Other state agencies that issue licenses require nearly all of this information.**
- b. Cal/OSHA investigators should be required to seek the license record of any labor contractor encountered. This information should be included in the name record of the firm, as it already is in some instances. Also, the exact name of the farm operator for whom the labor contractor is determined to be working should also be recorded in every such case, as it is in some instances.**
- c. Farm labor contractors (FLCs) have had mixed reactions to some of the recent requirements for annual in-service training. At present, eight hours per year are required, and can only be obtained from designated providers. The state licensing agency should consider screening FLCs at license renewal via examination and exempting those who score exceptionally well.**
- d. The FLC license renewal process should be reviewed with the assistance of knowledgeable parties, experienced labor contractors, and representatives of hired farmworkers. The license renewal process should be simplified and expedited, including one-stop registration and licensing for all agencies.**
- e. Labor contractors should be required to disclose the identity of farm operators for whom they are working. This could easily be done through the existing labor contractor registration process at the county agricultural commissioner.**
- f. Labor contractors are presently excluded from consideration as “employers” under the state’s Agricultural Labor Relations Act. Hired farmworkers should have the right to determine who they wish to have included as “employers” for purposes of concerted action. This extension of determining who is responsible for conditions of employment should be joint and several, not to replace the farm operator. Ultimately, we favor holding farm**

**operators and any labor contractors they hire to be jointly and severally liable for all conditions of employment at the place of employment.**

The sharp increase in the use of farm labor contractors in California agriculture has enabled farm operators to utilize a labor-market intermediary to shield themselves from liability for a wide variety of workplace conditions, such as employer sanctions for knowingly employing undocumented workers, or responsibility for workplace safety and health. Labor contractors are considered the responsible party when farm operators arrange for their crews to perform needed tasks.

Some advocates have long argued that labor contractors and farm operators should be jointly and severally liable for all workplace conditions. This approach had the advantage of adding to the pool of potentially liable parties, but legislative proposals to enact it have been defeated repeatedly.

Another approach would be to require farm operators to fully and completely disclose the circumstances in which labor contractors are working on their farms. We propose a series of modest and very low-cost initiatives to both streamline the process of licensing and registration and also make more transparent the process by which labor contractors are assuming responsibility for on-farm activities.

## **7. Provide Information to Farmworkers**

**Agencies whose funding is not tied to the services they provide to eligible farmworkers should provide basic information to farm laborers about their rights and responsibilities under California and U.S. law.**

Hired farmworkers are surprisingly uninformed about their rights and responsibilities under California and U.S. law. Alarming, the NAWS finds that just two-thirds (65%) of workers thought they had coverage under Workers Compensation insurance, even though state law requires this important protection for virtually all California workers in the event of a workplace injury. One worker in eight (12%) believed they did not have Workers Compensation insurance and another one-fourth (23%) didn't know whether they had this protection. Thus, many workers are unaware of Workers Compensation or think they might not qualify.

The high annual turnover of hired farmworkers reported by NAWS—18% of all workers were newcomers—also implies that a significant number of inexperienced workers are probably unfamiliar with their rights and responsibilities under California and U.S. law. This lack of knowledge not only leaves some workers vulnerable to unscrupulous employers, it also serves to weaken compliance efforts because most enforcement agencies, such as Cal/OSHA and the Department of Labor Standards Enforcement, are primarily complaint-driven systems.

Despite the blizzard of paper that California employers are required to post in the workplace or otherwise provide to their employees, in Spanish as well as in English, farm laborers are very likely to suffer from a greater-than-acceptable lack of information. Part of the problem is low literacy, but another part of the problem is the lack of appropriate educational approaches by educators.

Health workers in less developed countries have learned that they must visit people where they reside, not just the workplace, and communicate verbally—delivering facts and ideas in person—to be effective educators. Supplementing that approach with a culturally appropriate and

handy guidebook, produced by a trusted source that is not tied to funding associated with service delivery, can be extremely effective. Guidebooks, such as *Una guía para trabajadores agrícolas en California* [47], have proven to be effective in worker education.

We recommend a substantial new initiative be undertaken that relies on community health workers and popular education models.

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