Health care access among undocumented farm laborers in California

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Introduction and background

Health disparities among differing racial or ethnic groups are topics of considerable discourse in the contemporary medical literature (Barr, 2008). Socioeconomic status, although difficult to quantify, has also been recognized to play an important role in health outcomes. One measurable component of health status demonstrably affected by both socioeconomic status and racial/ethnic differences is access to health care services.

There are no previous reports of large-scale cross-sectional health surveys in the literature for any specific occupational group of the effect of immigration status on access to health care services in the U.S. Such studies are, of course, problematic.

The present paper examines the influence of immigration status among foreign-born hired farm workers in California as a factor in accessing health care services in the U.S. Lack of health insurance has repeatedly been identified as a major barrier to accessing health care. Policy interventions that seek to provide medical insurance for uninsured persons often limit access by non-citizens, and nearly always exclude workers who lack authorization for U.S. employment.

Additional factors may also impact the ability of many foreign-born hired farm workers to access health care services, including race/ethnicity, socioeconomic status, lack of providers, and language differences. Cultural factors may also affect the physician-patient relationship when traditional belief systems clash with standard medical practices of the developed nations (Bade, 1993; Baer & Bustillo, 1998).

The Agriculture, Forestry, Fishing and Hunting (AFFH) industry, of the nation's twenty major industry sectors defined by NAICS categories, reportedly has the largest proportion of foreign-born workers within its labor force (U.S. BLS, 2008). The size of this sector's labor force is not accurately known, but a large portion is employed in agriculture. Agricultural workers, including self-employed workers (farmers and ranchers), unpaid family workers, and hired farm workers comprise about 3.2 – 5.3 million persons (National Research Council, 2008). Hired farm laborers are estimated to be 2.5 million persons, of which 1.8 million are crop workers (Aguirre/JBS, 2005).

Among all industry sectors, the AFFH sector also has the highest proportion of workers lacking employer-provided health insurance (U.S. BLS, 2009). In part, this is associated with the predominance of small-scale businesses in this sector; large-scale businesses are generally more able to afford worker benefits such as health insurance. Agricultural employment is quite dispersed among small-scale operations. Of 482,186 U.S. farms reporting hired labor in 2007, 91% employed fewer than 10 workers, many on only a seasonal basis, averaging just 2.6 workers per farm (U.S. Department of Agriculture, 2009).

Farming occupations have the highest concentration of immigrant workers who are not authorized for employment as compared with all other types of jobs (Passel, 2006). The same author states there are three times as many unauthorized workers in farming occupations as native workers.

Thus, hired farm laborers are employed in an industry that has the highest proportion of workers who are foreign-born, or lack medical insurance, or are not employment authorized, as compared with all other sectors. It is not known what

proportion of this labor force is foreign-born, and not employment authorized, and also does not have any form of health insurance.

There are only two large-scale, cross-sectional, occupation-based health surveys that have included information about immigration status. The National Agricultural Workers Survey (NAWS) is a national cross-sectional survey conducted by the U.S. Department of Labor that annually conducts in-person interviews of roughly 3,000 hired crop workers (U.S. DOLETA, 2009). The NAWS has reported only limited information about immigration status and access to care, although the more recent summary of California findings from the NAWS includes considerably more data than national reports.

The California Agricultural Workers Health Survey (CAWHS) was a one-time statewide, cross-sectional health survey that included both livestock workers as well as crop workers (Villarejo & McCurdy, 2008). The present paper is the first report of findings from the CAWHS to discuss immigration status as it relates to health.

Methods

The CAWHS was a statewide, cross-sectional health survey conducted in 1999. The CAWHS was a household survey that included a voluntary comprehensive physical and laboratory examination administered by third-party medical professionals.

The multi-stage sampling strategy, described in detail elsewhere (Villarejo et al, 2000; Villarejo & McCurdy, 2008), selected seven representative communities within all six of California's agricultural regions (Arbuckle, Calistoga, Cutler, Firebaugh, Gonzales, Mecca and Vista). Investigators enumerated all potential dwellings in the target areas, both formal dwellings and informal ones (such as campsites, sheds, garages, abandoned vehicles, run-down trailers, and jerry-rigged shacks). A random sample of dwellings was drawn in each area, and residents were contacted in-person by interviewers.

In dwellings where residents agreed to cooperate, the interviewer enumerated all eligible workers residing there at that time. One or more residents were randomly selected and asked to participate in the CAWHS. Eligibility was limited to those age 18 years or older who had performed hired labor on a U.S. farm within the prior year.

Women were over-represented in the CAWHS sample owing to a sampling scheme favoring their selection. Findings for men and women are reported separately.

Study candidates were provided with a written and oral description of the survey and with a detailed explanation of their rights as human subjects, including the right to decline participation in any portion of the survey. All survey materials were reviewed and approved by the Institutional Review Board of the University of California at Davis.

Survey elements

The CAWHS included three components: (a) a main interview concerning family composition, personal demographics, health insurance status, utilization of health care services, use of traditional healers, use of home remedies, self-reported health conditions, clinically determined health conditions, work history, income and living conditions, workplace health conditions, experience with protective equipment and training, working with pesticides in the U.S., field sanitation, workplace injuries, and immigration status; (b) a comprehensive physical examination, including biometrics, dentition, skin, chest,

heart, abdomen, genitalia, and breasts (women only); and (c) a risk behavior interview, including personal health habits, use of drugs, reproductive health (women only), experience of personal threats or violence, sexual activity, mental or psychological illnesses, experience with Workers' Compensation insurance, and workplace safety. Laboratory examinations included glucose, cholesterol, complete blood count (CBC), and syphilis testing; women receiving a pelvic examination also received a Pap smear and cultures for *Chlamydia* and gonorrhea.

The main survey instrument was administered in-person by trained, hired interviewers, typically in the participant's residence or nearby. Each copy of the blank instrument was coded in advance with a unique number in order to maintain confidentiality of participants during subsequent handling and data processing. Interviewers filled out paper copies of the instrument at the time of the interview.

Almost all participants chose to respond to the main survey instrument in Spanish, their preferred or sole language. A few dozen participants chose to respond in English. Interviewers were bilingual (Spanish-English), and most were also bicultural. One interviewer was bilingual in Mixteco and Spanish, and administered the main instrument to the few indigenous Mixtec Mexican participants who preferred to respond in Mixteco.

The physical examination and risk behavior interview were conducted at a local clinic in the community or other suitable nearby medical office. The examination and interview were scheduled by appointment, at the convenience of the CAWHS participants, typically after regular clinic hours. Project staff provided transportation to and from the clinic. A post-survey consultation between each participant and a medical professional reviewed the findings of the physical examination and give referrals, when appropriate. Participants received a $30 cash honorarium in consideration of their time.

Hard copies of physical examination and complete blood count (CBC) reports were furnished to the staff of the Sexually Transmitted Disease (STD) branch of the California Department of Health Services (since reorganized and renamed the California Department of Public Health (CDPH)). By agreement, CDPH agreed to perform the data entry and, in return, was granted the exclusive first right to analyze and publish all CAWHS findings pertaining to STDs and associated risk behaviors. A paper based on those findings has been published (Brammeier et al, 2008).

Data from the main instrument were keyed into appropriate files by a professional data entry firm. A double-entry protocol and standard data-cleaning procedures were followed to ensure accuracy. Data from the main instrument, physical examination and risk behavior instrument for the seven CAWHS sites were merged into a single metafile, later divided into two metafiles, one each for male and female participants, and analyzed for the present report using SPSS Base 16.0 for Windows (SPSS Inc., Chicago, IL).

Results

Reports of findings from the CAWHS regarding occupational health, and STD and sexual risk behaviors have been published, as noted above. A report of findings from the CAWHS concerning general health status based on the physical examination and risk behavior interview has been submitted for publication (Villarejo et al, 2008).

At the outset, it is useful to note some differences among CAWHS participants regarding responses to the query concerning immigration status ("What is your current

resident status?/¿Cuál es su estatus de residencia de ahora?"). Irrespective of self-reported immigration status, there was near uniformity in the proportion of CAWHS participants said they were of Hispanic ethnicity (93%). While 6% said they were U.S.-born citizens, nearly everyone else said they were born in Mexico.

Substantial differences were found regarding a number of characteristics between those who said they were not employment authorized as compared with both citizens and employment-authorized immigrant workers. Among both male and female participants in the CAWHS, most unauthorized immigrant workers were younger, had been in the U.S. fewer years, had been employed as a farm laborers for fewer years, were less likely to be married, and were more likely to be unaccompanied by family in the U.S.

Tables 1a and 1b present summary findings regarding age, years of U.S. residency, years of U.S. hired farm work, marital status and accompaniment status. For these independent variables, and separately for male and female participants, findings are reported for each of the categories "Citizen," "Immigrant-employment authorized," and "Immigrant-Not employment authorized". It is assumed herein that persons who told an interviewer they were not employment authorized accurately described their status.

Table 1a. Selected Self-reported Characteristics of Male Hired Farm Workers, California, 1999, CAWHS

Characteristic	*Citizen (n=65)*	*Immigrant-employment authorized (n=339)*	*Immigrant-Not employment authorized (n=179)*
Age, years (median)	37	38	27
Years in U.S. (median)*	21	18	6
Years of U.S. farm labor (median)	13	16	5
Married (percent)	64%	76%	36%
Unaccompanied by any family member (percent)	29%	29%	68%

Table 1b. Selected Self-reported Characteristics of Female Hired Farm Workers, California, 1999, CAWHS

Characteristic	*Citizen (n=43)*	*Immigrant-employment authorized (n=197)*	*Immigrant-Not employment authorized (n=75)*
Age, years (median)	35	37	29
Years in U.S. (median)*	24	13	7
Years of farm labor (median)	9	8	5
Married (percent)	57%	69%	35%
Unaccompanied by any family member (percent)	12%	13%	29%

* For "Citizens" only, "Years in U.S. (median)" refers exclusively to naturalized citizens; for both categories of immigrants, refers to the full population.

Determination of economic status is problematic for the CAWHS sample. First, since the survey was conducted during the Spring, Summer and Fall months of 1999, it was not possible for workers to accurately state their earnings for the whole year. Thus, the CAWHS query asked participants to report their 1998 earnings, both personal and family earnings. But a considerable number of participants actually entered the U.S. for the first time during 1998 or 1999 and nearly all of those workers either did not have any earnings in 1998 or only had earnings for part of the year. For this reason, it is necessary to exclude approximately 7% of the sample's male workers from an analysis of annual earnings; about 9% of female workers were excluded. Nearly all of the worker records excluded from the discussion of family earnings in the next paragraph were for persons who said they were not employment authorized.

Annual 1998 family earnings for CAWHS participants who reported such income were substantially lower for both male and female unauthorized workers than for either citizen or employment-authorized immigrant. The median categorical annual family earnings during 1998 for both unauthorized male and unauthorized female workers were $7,500 – $9,999. This amount was about half of that reported by both employment-authorized and citizen males, $15,000 - $17,499. For women, both employment-authorized and citizen workers the median categorical annual family earnings were $12,500 - $14,999.

Utilization of health care services

A direct measure of access to health care is the degree to which people use health care services. The CAWHS survey instrument asked about visits to doctors or clinics, dentists, vision care providers, chiropractors and traditional healers. In addition, since nine out of ten participants in the CAWHS were born in Mexico, a query asked about possible health care visits to Mexico.

In general, the findings from the CAWHS among male hired farm workers indicate that those who were not employment authorized had significantly less access to health care services than workers who had employment authorization, while workers who were U.S. citizens had the best access to care. Surprisingly, among females, there were much smaller differences between the three groups regarding access to care. In fact, although unauthorized women, on average, reported slightly fewer visits to doctors or clinics in the prior two years than either of the other two groups, the differences among the three groups of this measure of health care access were not statistically significant.

Of possible greater significance was the finding that relatively few workers, male or female, had visited a traditional healer during the previous two years. Among men, unauthorized workers were slightly less likely to have visited a traditional healer as compared with employment-authorized workers, although the differences in the prevalence of such visits among the three groups were not statistically significant. An even smaller share of women in all three groups reported having visited a traditional healer in the prior two years.

The CAWHS findings regarding use of health care services are summarized in Tables 2a and 2b.

Table 2a. Use of Health Care Services, Male Hired Farm Workers, California, 1999, CAWHS

Health care service	*Citizen (n=65)*	*Immigrant-employment authorized (n=339)*	*Immigrant-Not employment authorized (n=179)*
Doctor/clinic visit in past two years (percent)	65%	54%	39%
Doctor/clinic visit – **Never** (percent)	22%	27%	46%
Dental visit in past two years (percent)	41%	34%	18%
Dental visit – **Never** (percent)	38%	47%	69%
Go to Mexico for health care (percent)	22%	18%	19%
Traditional healer visit in past two years (percent)	5%	9%	8%

Table 2a. Use of Health Care Services, Female Hired Farm Workers, California, 1999, CAWHS

Health care service	*Citizen (n=43)*	*Immigrant-employment authorized (n=197)*	*Immigrant-Not employment authorized (n=75)*
Doctor/clinic visit in past two years (percent)	74%	81%	67%
Doctor/clinic visit – **Never** (percent)	14%	9%	25%
Dental visit in past two years (percent)	46%	39%	26%
Dental visit – **Never** (percent)	37%	40%	60%
Go to Mexico for health care (percent)	17%	21%	2%
Traditional healer visit in past two years (percent)	0%	6%	5%

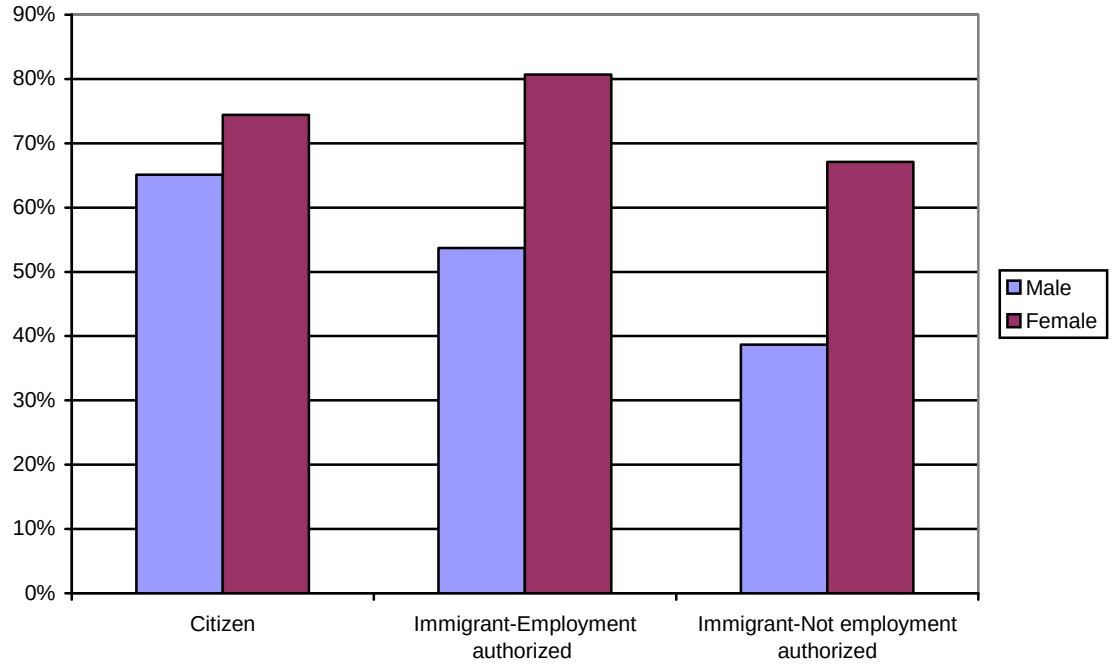
Note: Differences in the prevalence of Doctor/Clinic visits among the three groups of male hired farm workers were statistically significant (Chi-square test: value=32.460, asymptotic significance (2-sided)=0.000). However, as indicated in the text, differences in the prevalence Doctor/Clinic visits among the three groups of female hired farm workers were not statistically significant (Chi-square test: value = 14.456, asymptotic significance (two-sided) = 0.153).

Across all three categories of immigration status, men indicated a much lower utilization of Doctors/Clinics and Dentists than women. On the other hand,

proportionately fewer women than men said they had visited a traditional healer. Finally, except among immigrant workers who were not authorized for employment, there was no difference between men and women regarding visits to Mexico to obtain health care services. Male workers who were not employment authorized were more likely to have gone to Mexico for that purpose than was the case for unauthorized female workers.

The most surprising finding regarding use of health care services is the extent to which unauthorized female farm laborers successfully accessed care, based on the evidence of reported Doctor/Clinic visits. This is illustrated in Figure 1 (below) where it is shown that male workers reporting on a doctor/clinic visit within the previous two years were most likely to had such a visit if they were citizens, less likely if they were an employment-authorized immigrant, and least likely if they were not employment authorized. By contrast, unauthorized female workers were more than one and one-half times more likely than unauthorized males (67% vs. 38%) to have had such a health care visit. In fact, unauthorized women were slightly more likely than citizen males to have visited a doctor/clinic in the previous two years!

Figure 1. Doctor/Clinic Visit, Prior Two Years, Hired Farm Workers, California, 1999, CAWHS



Health insurance status and payment method for recent Doctor/Clinic visits

Participants in the CAWHS were asked if they had any form of health insurance, and, if so, describe the type. Among both male and female workers who were not employment authorized, 89% said they had no form of health insurance. A somewhat smaller, but still quite a large share of employment-authorized workers said they lacked

health insurance: 71% of men and 67% of women. Citizen farm laborers had only a slightly smaller prevalence of "none" when asked if they had health insurance: 66% of men and 63% of women.

Of considerable importance is that, uniformly across all three immigration status categories, a larger proportion of men who had health insurance said it was obtained through their employer as compared with men who said they were covered by MediCal or another type of needs-based public program. The reverse was true for women, also across all three immigration status categories: a larger proportion of women had medical insurance through MediCal or some other government program than were covered through their employer.

These finding are presented in Tables 3a and 3b.

Table 3a. Health Insurance Status of Male Hired Farm Workers, California, 1999, CAWHS

Type of Health Insurance	*Citizen (n=65)*	*Immigrant-employment authorized (n=339)*	*Immigrant-Not employment authorized (n=179)*
Personal/Private (percent)	5%	4%	<1%
Employer-provided (percent)	17%	17%	5%
MediCal/Other needs-based program (percent)	12%	4%	4%
Other	0%	3%	2%
None	66%	71%	89%

Table 3b. Health Insurance Status of Female Hired Farm Workers, California, 1999, CAWHS

Type of Health Insurance	*Citizen (n=43)*	*Immigrant-employment authorized (n=197)*	*Immigrant-Not employment authorized (n=75)*
Personal/Private (percent)	5%	7%	1%
Employer-provided (percent)	7%	13%	1%
MediCal/Other needs-based program (percent)	23%	17%	8%
Other	2%	2%	0%
None	63%	67%	89%

Note: Differences in the prevalence of Health Insurance Status among the three groups of male hired farm workers were statistically significant (Chi-square test: value = 41.164, asymptotic significance (2-sided) = 0.000). Differences in the prevalence Health Insurance coverage among the three groups of female hired farm workers were statistically significant, although slightly less so (Chi-square test: value = 28.812, asymptotic significance (two-sided) = 0.020).

CAWHS participants were also asked about the method of payment for their most recent Doctor/Clinic visit. The intended purpose of this query was to seek information about the role of employer-provided and needs-based programs in facilitating necessary medical care.

About two-thirds of male workers said they had paid out-of-pocket, using their own personal funds. Some described having been able to arrange installment terms, such as $5 per week. For all three categories of immigration status, men reported that employer-provided health insurance was a more prevalent method of payment than MediCal or other needs-based government program of insurance. For both male and female unauthorized workers, there were some reports of care being provided without charge.

In contrast to the male workers, a somewhat smaller share of female hired farm workers, roughly half overall, reportedly had paid out-of-pocket for their most recent Doctor/Clinic visit. Of considerable significance, for all three categories of immigration status, female workers reported that MediCal or other needs-based government insurance programs had paid for their visit. Opposite from the reports by men, female participants in the CAWHS also said that the prevalence of employer-provided insurance payments was a much smaller share overall than was the case for government programs payments.

The CAWHS findings regarding the Method of Payment for the most recent Doctor/Clinic visit are presented in Tables 4a and 4b. For men and women separately, comparisons of the Payment Methods between the three differing immigration status groups were not statistically significant (see the Note following Tables 4a and 4b).

An important consequence of this fact is that MediCal and other government needs-based programs were as prevalent for unauthorized women as for citizen women. In other words, in California during 1999, the evidence based on Payment Method for the most recent Doctor/Clinic visit indicates that immigration status was not a significant factor in determining whether unauthorized women farm laborers received government provided insurance coverage.

Table 4a. Payment Method for Most Recent Doctor/Clinic Visit, Male Hired Farm Workers, California, 1999, CAWHS

Payment method	*Citizen (n=48)*	*Immigrant-employment authorized (n=226)*	*Immigrant-Not employment authorized (n=88)*
Out-of-pocket (percent)	69%	62%	64%
Personal/private insurance (percent)	2%	3%	2%
Employer-provided insurance (percent)	15%	16%	8%
MediCal/Other needs-based programs (percent)	4%	9%	6%
Workers Compensation insurance (percent)	2%	7%	7%
Other	4%	3%	9%
Didn't pay	0%	<1%	4%

Table 4a. Payment Method for Most Recent Doctor/Clinic Visit, Female Hired Farm Workers, California, 1999, CAWHS

Payment method	*Citizen (n=35)*	*Immigrant-employment authorized (n=162)*	*Immigrant-Not employment authorized (n=49)*
Out-of-pocket (percent)	40%	53%	51%
Personal/private insurance (percent)	3%	1%	0%
Employer-provided insurance (percent)	9%	6%	0%
MediCal/Other needs-based programs (percent)	29%	35%	29%
Workers Compensation insurance (percent)	0%	<1%	0%
Other	6%	5%	18%
Didn't pay	0%	0%	2%

Note: Differences in the prevalence of Payment Method among the three groups of male hired farm workers were not statistically significant (Chi-square test: value = 20.739), asymptotic significance (2-sided) = 0.109). Differences in the prevalence of Payment Method among the three groups of female hired farm workers were not statistically significant (Chi-square test: value = 26.332, asymptotic significance (two-sided) = 0.155).

Denial of Doctor/Clinic health care services and failing to seek care when sick

CAWHS participants were asked if they had ever been denied services during an attempt to visit to a Doctor/Clinic. Among men, 4% said they had been refused when seeking medical care at a Doctor/Clinic. The number of such reports was too small to allow meaningful comparison across the three immigration status groups.

The prevalence of reports by female participants in the CAWHS was 4%, identical to the finding among men. Again, the small number of cases precluded statistical comparisons between the differing immigration status groups.

When asked why they had been denied care, the most frequent reason cited by both men and women was "lack of health insurance" or "inability to pay". Other less frequent reasons given included "legal status" and "people at the clinic did not speak my language".

CAWHS participants were also asked if they were ever sick or hurt but did not seek care at a Doctor/Clinic. Among men, 15% said they had not sought care from a Doctor/Clinic when it was needed. Among female participants in the CAWHS, and identical fraction, 15%, said they had not attempted to visit a Doctor/Clinic in at least one instance when they were hurt or ill. For both men and women, there was no statistically significant difference regarding this experience among the three differing immigration status groups.

The principal reason given for not seeking medical care at a Doctor/Clinic when it was needed was "lack of funds/insurance". Other reasons given for not seeking medical

help were much more diverse than in cases of denial of care. Lower in prevalence, and in descending relative order, were "lack of convenient hours", "lack of transportation", "lack of time", and "lack of an available appointment".

Adverse health outcomes associate with lack of access to medical services

The CAWHS included the opportunity for participants to complete a comprehensive physical examination. Approximately two-thirds agreed to do so, roughly the same proportion among men as among women.

In addition to numerous anecdotal reports of previously undetected adverse health outcomes – cervical cancer, active syphilis, excessively high serum glucose – a systematic set of findings were analyzed with respect to access to care. One of these analyses was particularly significant.

High blood pressure was found among approximately one-third of male and one-fifth of women who participated in the physical examination. Among men who were not authorized for U.S. employment and who either had never visited a Doctor/Clinic or had not done so for more than two years, there was an elevated prevalence of HBP. This association of previously undetected high blood pressure with lack of a recent medical visit was statistically significant as compared with male workers who were employment authorized or citizens (Chi-square test, Value=11.894, Asymptotic significance (2-sided)=0.036). No such association was found for any of the three immigrant status categories of women.

Discussion and Conclusion

Participants in the CAWHS reported remarkably low prevalence of health insurance coverage: nearly three-fourths of workers had no coverage whatsoever. Needs-based, government-sponsored health insurance programs were far less prevalent than employer-provided health insurance, especially among male workers. In addition, more than a few workers reported incidents of being denied care when seeking clinic or doctor services as well deliberately choosing not to seek care when they thought it was necessary. In these circumstances, lack of funds or health insurance was most frequently cited as the cause.

Regardless of immigration status, male workers were less likely than female workers to seek care, whether from a Doctor/Clinic or a Dentist. This is consistent with findings for all U.S. residents.

Findings for citizen and employment-authorized immigrant workers regarding access to care and health insurance status were generally quite similar, although, as noted above, women were more likely than men to obtain health care services. However, unauthorized male workers were far less likely to obtain health care services or have health insurance than their citizen and employment authorized counterparts.

One of the most striking findings from the CAWHS is that women who lacked employment authorization were as likely as their citizen and employment-authorized counterparts to have had a Doctor/Clinic visit within the previous two years of their interviews. More remarkable is that women who were not authorized for U.S. employment were just as likely as women in the other two immigration status categories

have had their most recent Doctor/Clinic visit paid by MediCal or another needs-based government benefits program.

The most likely factor in the very much greater access to care among not employment authorized immigrant women workers as compared with not employment authorized men is that California is one of just fourteen states to offer Medicaid (the state's version of this program is called MediCal) coverage to pregnant not employment authorized women. This latter program is known as Emergency MediCal and provides coverage for pre-natal care, birthing and post-delivery care for mother and child up to an additional four months.

More than half of women who were not authorized for U.S. employment, and who said MediCal paid for their most recent Doctor/Clinic visit, had obtained pre-natal care or labor and delivery care, undoubtedly through the Emergency MediCal program. On the other hand, there was only one woman who said she was not employment-authorized, had a pre-natal exam and paid for that visit out-of-pocket. There were also three women who said MediCal paid for their baby's delivery but declined to state their immigration status in the interview.

The significance of this finding is that very recent national legislation to expand the Child Health Insurance Program includes federal funding specifically designated for states that offer this type of Medicaid insurance. In other words, any of the additional thirty-six states not presently offering health insurance coverage to pregnant women who are not employment-authorized is now guaranteed federal funding for that purpose.

The CAWHS findings can be compared with the more limited published findings from the National Agricultural Workers Survey (NAWS), the only other large-scale survey to inquire about immigration status. The NAWS interviews a nationally representative sample of hired crop farm workers, age 14+. In 6,472 interviews during 2001-02, the NAWS finds just 23% had any form of health insurance (U.S. DoL NAWS, 2005?), whether private insurance or government needs-based programs. Only 8% reported having health insurance through their employer. These findings are consistent with the reports herein from the CAWHS. The NAWS did not report national findings regarding health insurance status as it varied with gender or immigration status.

A more recent update from the NAWS, covering interviews during the entire period 2002-07, finds that 26% of hired crop farm workers had some form of health insurance. But, again, this update did not include findings with respect to gender or immigration status.

California findings from the NAWS have also been published based on 2,450 interviews conducted during FY 2003-04. These findings indicate 70% of the state's farm laborers lacked any form of health insurance.

Importantly, the California NAWS findings include the some limited information about immigration status and health insurance coverage. In particular, the NAWS finds 83% of unauthorized crop workers lacked health insurance. Again, this is consistent with the CAWHS findings.

Similar to the CAWHS results, the NAWS finds that a similar fraction of citizen and immigrant-authorized crop workers have some form of health insurance, 47% and 45%, respectively. The NAWS also has detailed findings regarding health insurance for spouses and children of California crop farm laborers as well as important details about

worker contributions for health insurance premiums, required co-payments and whether those with insurance have coverage only for themselves, or for family members as well.

Finally, the CAWHS included disturbing finding of an elevated prevalence of previously undetected high blood pressure among workers who were not authorized for U.S. employment and who lacked a recent medical visit indicates that there are severe medical consequences of denial of medical services based on immigration status. The nation has mechanisms to address this, especially for women, but lacks a serious program for men.

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