THE HEALTH STATUS OF IMMIGRANT WORKERS IN THE US

FROM THE SECTION ON UNDERSERVED OCCUPATIONAL POPULATIONS (SUOP) OF THE AMERICAN COLLEGE OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

MAY 1, 2012
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INTRODUCTION
Abstract

Many papers and reports have been written about the health status of immigrant workers in general in the US and, in particular, about those immigrants who are doing the dirty, difficult, and dangerous jobs here that no one else wants to do like farm labor. This paper explores the current demographics of this population and what is known about their health status and their access to adequate healthcare. Though improved somewhat through the efforts of the Federal Migrant Health Program and several effective national organizations such as the Migrant Clinicians Network, the Farmworkers’ Justice Fund, the National Center for Farmworker Health, the United Farmworkers, and others as well as numerous State and local organizations, the occupational and personal health status and health care access of this population does not appear to even approach what others in America enjoy. What’s more, the internal and external pressures that have brought such workers to the US in the past is increasing, not diminishing, such that almost all of the job growth in the US over the next few years will be attributable to the availability of immigrant workers. It is sad to have to report this, but the evidence is undeniable.
Purpose:
The Section on Underserved Occupational Populations (SUOP) of the American College of Occupational and Environmental Medicine (ACOEM) believes that there is a significant population of immigrant (foreign-born) workers in the US and their families that continue to experience serious health status and health care access issues of a personal, family and/or occupational nature and that these issues have significant implications for all of us now and in the future.

This population representing about a third of immigrant workers in this country are performing the least desirable, though no less necessary jobs that no one else wants to do, that we all depend on to maintain our styles of living, and that currently and in the future will fuel the growth of our economy. Though most of these people come to the US to seek and achieve a better life for their families as many US immigrants before them have done, our need for the work that they do is increasing due to shifts within our native born population and – at the same time - the pace of their immigration is quickening at a dramatic pace due to changes in the global economy some of which we, ourselves, have caused and/or accelerated\(^1,^2\) and because of conflicts abroad.

Some have called this worker population and their families “The Invisible People\(^3\). Others have called them “The Mobile Poor\(^4\). As we will demonstrate, this is a population that continues to be plagued by health status and health access difficulties that have not improved significantly since the epic TV documentary expose done by Edward R. Murrow on Thanksgiving Day, 1960 entitled “Harvest of Shame.” In some ways their plight has actually worsened. This despite the genuine and significant efforts made by federal and state government agencies, many professional and non-governmental agencies at all levels, and labor organizations, these issues seem to persist. We believe that in the words of the title of signature song of the popular, New Orleans Jam Band, Galactic, “There is something wrong with this picture!”

The specific purposes of this White Paper are

- To identify, quantify, and describe the sub-populations within the US immigrant worker population that have unacceptable, diminished health status, flawed access to health care as well as other health issues
- To discuss the historic, current, and future importance of these sub-populations of workers in the US and the threats to our nation posed by their problematic health status
- To catalog, segment, and describe in some detail the extent and severity of these health issues, to describe their etiologic and contributing factors, and to explore some of the historic, current, and future attempts to overcome them.
- To forecast some of the personal and societal implications if the current situation continues.

This white paper is NOT intended to identify or advocate for logistical or political solutions for the problems in this area that we face as a society and that members of this population face in their daily lives. That is beyond the scope of this effort.

\(^1\) http://www.fas.usda.gov/ftp/policy/nafta/nafta.asp
\(^2\) http://www.fas.usda.gov/ftp/cafta/cafta.asp
\(^3\) http://www.extension.org/pages/9960/migrant-farm-workers:-our-nations-invisible-population
Our SUOP Target Population: Who Are They? Why?

In 2010 there were 36 million foreign-born residents in the US, 23.1 million of whom were in the civilian labor force, making up 16.4 percent of the total workforce (see also below). This population includes naturalized citizens, legal permanent residents, temporary migrants (including H-1B workers and students), refugees, asylum seekers, and, to the extent to which they are counted, unauthorized immigrants. This population is expanding rapidly in numbers and in geography.

In this paper we will be focusing our attention on one large segment of the immigrant workers in the US: those who are working at the low end of the wage and status scale in jobs often referred to as “Three D” jobs because the work is considered “dirty, dangerous, and difficult”. These jobs are also called “SALEP”—jobs that are Shunned by All Except the very Poor. The workers in these jobs typically experience greater occupational, personal, and family health risks but because they lack skills, documentation, education, and language proficiency, these jobs are all that is available to them. They continue to gravitate to these “Three D” jobs because of the loss of paying jobs in their home country and because these jobs pay far more than the migrants can make in their countries of origin.

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5 http://www.renewoureconomy.org/brookings
8 Migration and Occupational Health: Understanding the Risks, Marc Schenker, October 2011; Migration Policy Institute Information Source, http://www.migrationinformation.org/Feature/display.cfm?ID=856
To better understand the plight and population dynamics of our target population, we should first understand what are arguably some of the greatest social and economic “tsunamis” in the history of the US, i.e. the dramatic and relentless population shifts that are currently occurring in the US and which – for a variety of reasons - will continue unabated into the foreseeable future.

- Primary among these shifts is the aging of our US population and the resulting effect that it has and will continue to have on the availability of labor (of all types) in the US.
- Another and equally as dramatic shift is in the ethnic and country of origin composition of our society and our workforce and the role that immigration has and will continue to play in that shift.
- Finally, there have and will continue to be shifts in the size and nature of our economy as a whole that can and do affect the composition and concentrations of our workforce.

Some evidence of the size and import of these shifts:

**AGING OF THE US POPULATION, EXPANSION OF THE US ECONOMY, AND THE DEMAND FOR WORKERS:**
- 60 million workers are between the ages of 41-59. The first baby-boomers (born in 1946) will turn 65 in 2011, though experts believe many will opt to retire at age 62 instead, moving up the start of the retirement wave to 2008.
- 2005 projections estimate that from 2015-2020, the fertility rate in the U.S. will be 1.91 children per woman, dropping below the “replacement level” (two children are considered replacement).
- The baby boomer generation and presence of women in the workforce expanded the size of the workforce in past decades; low fertility rates mean that expansion of the native-born workforce is unlikely within the next 20-30 years.
- The economy continues to expand; from 2002-2012, job growth in professional and related occupations will be 23.3% and in service occupations will be 20.1%.
- According to the Bureau of Labor Statistics, there will be 27 million new jobs between 2002-2012 requiring a high school diploma or less education.
- Population estimates indicate that immigrants will generate all net labor force growth in the next twenty years because the size of the native-born population between the prime working ages of 25-54 will not grow.

**THE ETHNIC AND COUNTRY OF ORIGIN COMPOSITION OF OUR SOCIETY AND OF OUR WORKFORCE AND THE ROLE THAT IMMIGRATION HAS AND WILL CONTINUE TO PLAY IN THAT SHIFT**
- New immigrants (who entered the U.S. between 2000 and 2004) contributed at least 67% of the growth in the civilian labor force over the past 3 years, exceeding their contribution to the labor force in the decade of the 1990s, which was a historical high for the U.S.
- Immigrants are:
  - 1 in 9 U.S. residents,
  - 1 in 7 U.S. workers,
  - 1 in 5 low-wage workers, and
  - 1 in 2 new workers
- The size of the U.S. work force increased by 16.7 million workers in the 1990s. Of these workers, 6.4 million were immigrants (38%).
- 90% of new job growth between 1996-2000 was due to immigrants in these states: Connecticut, Iowa, Kansas, Maine, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, South Dakota, and Vermont.

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The Health Status of Immigrant Workers in the US: A Work In Progress

- Twelve states owe at least 80% of their labor force growth between 2000 and 2004 to new immigrant workers\(^\text{18}\).
- During the 1990s, the immigrant population in “new immigrant” states grew twice as fast as the immigrant population in the six states that receive the greatest number of immigrants\(^\text{19}\).
- The most rapid growth in the number of undocumented migrants has been in states that previously had relatively small foreign-born populations, including Arizona, Georgia, North Carolina, and Tennessee\(^\text{20}\).
- Even with employment of possible qualified native workers, there would have been a shortage of 500,000 workers in 13 occupational categories during the 1990s without non-citizen workers.
- These categories [most of which could be classified as “3 D” jobs] included\(^\text{21}\):
  - miscellaneous agricultural workers (shortage of 108,392 workers),
  - maids and housekeeping cleaners,
  - sewing machine operators,
  - grounds maintenance workers,
  - construction laborers,
  - other production workers,
  - cooks,
  - painters,
  - construction and maintenance,
  - janitors and building cleaners,
  - butchers and meat, poultry, fish processing workers,
  - other metal workers and
  - plastic workers, packers and packagers (hand), and packaging and filing machine operators and tenders.
- New immigration is likely to contribute between one-third and one-half of the growth of the labor force through 2030. Between 2010 and 2030, first and second generation immigrants together are projected to account for all growth in the U.S. labor force.\(^\text{22}\)
- In summary and simply put, our economy seems to be dependent on immigrant labor now and for the foreseeable future. The U.S. population is aging rapidly as the baby boom cohort enters old age and retirement. As a result, our economy will increasingly depend upon immigrants and their children to replace current workers and fill new jobs.


\(^{19}\) Fix, Zimmermann, and Passel, The Integration of Immigrant Families in the United States (Urban Institute, July 2001).


US IMMIGRANT WORKER DEMOGRAPHICS
THE DEMOGRAPHICS OF ALL US IMMIGRANTS AND IMMIGRANT WORKERS:
HOW OUR NATION IS CHANGING AND WILL CONTINUE TO CHANGE
• **IN GENERAL**
  - In 1970, immigrants made up approximately 5 percent of the population and 5 percent of the labor force.
  - By 2010, immigrants were 16 percent of the labor force, but only 13 percent of the total population (SEE FIGURE A BELOW).
  - There appears to be a strong relationship between economic growth and job growth in that immigrant newcomers are drawn to available jobs.

  ![FIGURE A](image)

• **SOME CHARACTERISTICS OF THE CURRENT US IMMIGRANT WORKER POPULATION**
  - **CITIZENSHIP STATUS:**
    - Naturalized US Citizens: Just over two in five (or almost 17.5 million) immigrants in the United States in 2010 were naturalized US citizens.
    - Others: The remaining 56 percent of immigrants (or 22.5 million) included lawful permanent residents, unauthorized immigrants, and legal residents on temporary visas, such as students and temporary workers.
    - Unauthorized: Unauthorized immigrants, number about 11 million in the United States (and 8 million in the US workforce). They are predominantly though not overwhelmingly male [Figure 3 and Table 5 below]. Most are from Mexico and Central America [Table 3 below]. Most locate in California, Texas, and Florida (presumably to engage in agricultural work) [Table 4 below] and are overrepresented in low-skill, low-wage jobs.
  - **EDUCATION LEVEL** (SEE FIGURE B BELOW): 29 percent of adult immigrants in the United States do not hold a high school diploma, a stark contrast to 7 percent in the U.S.-born population.
  - **SKILL LEVELS** (SEE FIGURE B BELOW):
    - While 60 percent of natives holding jobs are considered middle-skilled (those with a high school diploma plus those with some college experience or an associate’s degree), the share is nearly 20 percentage points lower for immigrants who are drawn to the U.S. economy by better opportunities than in their home countries.
    - As the American population has become more educated, the demand for lower-skilled workers has been increasingly met by immigrant labor.

  ![FIGURE B](image)
As recently as 1994, 72 percent of employed persons without a high school diploma were U.S.-born; 16 years later they made up only 48 percent of the total.

**IMMIGRANT REPRESENTATION BY INDUSTRY** (see figure C below):
- **IN GENERAL**
  - Immigrants supply a large number of workers in industries with a more mixed or primarily low-skilled workforce.
  - These industries include construction, food service, and agriculture where they represent approximately one-fifth of all workers.
  - The highest shares of immigrant workers are found in private households (49 percent of all workers) and in the accommodation sector (31 percent).
- **IN SPECIFIC INDUSTRIES:** Among key sectors with lower-skilled workers, levels of attainment between immigrants and natives diverge.
  - **AGRICULTURE:**
    - While the vast majority of immigrant workers in the agriculture sector are low-skilled (77 percent), the same is true for only 29 percent of native workers.
    - Nearly 61 percent of immigrants in the agricultural sector are classified as “miscellaneous agricultural workers, including animal breeders.”
    - These workers require little more than on-the-job training, largely planting and harvesting crops, operating farm equipment, and raising animals. While the common perception of this sector is that it is dominated by immigrant workers, this is true only at the low-skill end.
    - The average age of agricultural workers is 29 years, with very few older than 60 years, and the vast majority of these individuals and families live below the poverty line. Approximately 80% of migrant and seasonal farm workers are men.
    - Women are more likely to be U.S.-born than men, 34% and 15% respectively.
    - In the agricultural sector, immigrant workers are most likely to work as farm workers (60.5% of all immigrants), while native-born workers are most likely to work as ranchers or farmers. (35.5% of all native-born)
  - **ACCOMMODATION:**
    - Here, more than half of foreign-born workers lack a high school diploma; the same is true of only one-quarter of their U.S.-born counterparts.
    - In the accommodations sector, immigrant workers are nearly three times as likely as native-born workers to work as maids and housekeeping cleaners. (39.7% and 15.9%, respectively)
  - **CONSTRUCTION:**

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This sector shows a similar disparity in educational attainment with 60 percent of immigrants at the low-skill end and the majority of native workers with at least a high school diploma.

Laborers occupy the top spot (26 percent) among immigrant workers in construction.

In construction, immigrant workers are most likely to work as laborers (25.6% of all immigrants) while native-born workers are most likely to work as managers. (14.3% of all native-born)

- **FOOD SERVICE:**
  - In this sector, half of foreign-born workers and one-quarter of U.S.-born workers lack a high school credential.
  - In the food service industry, immigrants are more than twice as likely as native-born workers to work as cooks (31.5% and 14.2%, respectively), but more than 40 percent less likely than native-born workers to work as waiters or waitresses. (15.7% and 24.5%, respectively)

**IMMIGRANT REPRESENTATION BY AGE AND GENDER (SEE FIGURE D BELOW):**

- In 2010, approximately 51 percent of the entire US immigrant population was female.\(^{25}\)
- In 2010:
  - less than 1 percent of the foreign-born population in the United States were under the age of 5;
  - 6 percent were 5 to 17;
  - 9 percent were 18 to 24;
  - 72 percent were 25 to 64; and
  - 12 percent were 65 or older.
- Overall, the total immigrant population in 2010 was older than the US-born population: The median age of immigrants was 41.4 years, compared to 35.9 years among the US

*FIGURE D: ENTIRE IMMIGRANT POPULATION, BY AGE AND SEX, FOR THE UNITED STATES: 2010*\(^{26}\)
IMMIGRANT REPRESENTATION BY GEOGRAPHY: IN WHAT STATES WERE IMMIGRANTS CONCENTRATED IN 2010 (SEE FIGURE E BELOW)?

IMMIGRANT REPRESENTATION BY GEOGRAPHY: WHAT STATES HAD THE FASTEST GROWING IMMIGRANT POPULATIONS IN 2010 (SEE FIGURE F BELOW)?

TWO IN THREE IMMIGRANTS LIVED IN SIX STATES IN 2010.
IMMIGRANT REPRESENTATION BY GEOGRAPHY: IN WHAT COUNTIES WAS THE % OF IMMIGRANTS HIGHEST IN 2000 (SEE FIGURE G BELOW)?
THE DEMOGRAPHICS OF THE SUOP TARGET POPULATION:

- BY COUNTRY OF ORIGIN,
- BY AGE AND GENDER,
- BY CITIZENSHIP STATUS,
- BY JOB CATEGORY, AND
- BY MIGRATION STATUS
The Health Status of Immigrant Workers in the US: A Work In Progress

• **IN GENERAL**

The Immigrants in our SUOP target population described above come predominantly from Mexico (both indigenous and non-indigenous) and Central America. The reasons are not hard to discern. Farmers in Mexico are being driven off their land (as many as two million) due to the influx of subsidized agricultural products from the US under NAFTA. The disappearance of agricultural jobs there has resulted in enormous pressures among all segments of the Mexican workforce to "immigrate" to the US for jobs. The Mexican government itself has admitted that 82% of the working population has less income that what is needed for a “basic subsistence” life.27

What working class Mexicans face at home are millions being driven off the land, increasing unemployment in the cities, young people with literally no job prospects, and deepening poverty throughout the country. In these circumstances, Mexicans have three choices:

- work in the “informal sector” with no formal wages or benefits.
- work in the maquiladoras on the U.S.-Mexico border for wages of $1 an hour; or
- come to the U.S., with or without papers, to work whatever jobs they can find.

Today about 10% of Mexicans – some 12 million people – live in the U.S. Two-thirds of these immigrants have arrived since NAFTA went into effect in 1994.

In 2010, 47 percent of the 40 million foreign-born population (about 18.8 million) reported having Hispanic or Latino origins. Of the 50.7 million people in 2010 who identified themselves as having Hispanic or Latino ancestry, only 37 percent (18.8 million) were immigrants. The majority of Hispanics in the United States are native-born US citizens.

In 2006, Mexican workers sent $23.5 billion home, which was the country’s second biggest source of foreign income after oil.

Perhaps due to the factors described above, within the Mexican émigré population, there are increasing numbers of indigenous Mexicans coming into the US. They do not share customs or even language with the non-indigenous Mexicans who come here. They are from the southern, more remote parts of Mexico and speak Mixtec, Zapotec, and Triqui.

In the case of Central America, the same set of factors is at play. The five Central American countries have even weaker, more vulnerable economies than Mexico; they have fewer resources than Mexico; they have even worse poverty levels than Mexico.

• **MEXICAN-BORN IMMIGRANTS BY AGE AND GENDER: 2010 (SEE FIGURE H BELOW)28**

![FIGURE H](http://www.migrationinformation.org/DataHub/charts/pyramid_3.shtml)

![FIGURE Y: Mexican-Born Immigrants in the US: Age and Gender 2010](http://mhssn.igc.org/Brown_4-12-07.htm)
• MEXICAN-BORN IMMIGRANTS BY GEOGRAPHY: IN WHAT STATES WERE MEXICAN-BORN IMMIGRANTS CONCENTRATED IN 2010 (SEE FIGURE I BELOW)?

![Figure I](image1.png)

• MEXICAN-BORN IMMIGRANTS BY GEOGRAPHY: IN WHAT COUNTIES WAS THE PERCENTAGE OF IMMIGRANTS HIGHEST IN 2000 (SEE FIGURE J BELOW)?

![Figure J](image2.png)
THE DEMOGRAPHICS OF **UNDOCUMENTED IMMIGRANTS**: BY COUNTRY OF ORIGIN, BY AGE AND GENDER, BY CITIZENSHIP STATUS, BY JOB CATEGORY, AND BY MIGRATION STATUS
The Health Status of Immigrant Workers in the US: A Work In Progress

- **UNDOCUMENTED IMMIGRANTS BY COUNTRY OF ORIGIN (SEE FIGURE K BELOW)**

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**FIGURE K**

- **UNDOCUMENTED IMMIGRANTS BY AGE AND GENDER (SEE FIGURES L-1 AND L-2 BELOW)**

**FIGURE L-1**

**FIGURE L-2**
The most rapid growth in the number of undocumented migrants, however, has been in states that previously had relatively small foreign-born populations, including Arizona, Georgia, North Carolina, and Tennessee.  

### Table 4.

State of Residence of the Unauthorized Immigrant Population: January 2000 and 2005-2010

<table>
<thead>
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<td>All states</td>
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<td>10,490,000</td>
<td>11,310,000</td>
<td>11,780,000</td>
<td>11,600,000</td>
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<td>California</td>
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<td>2,770,000</td>
<td>2,790,000</td>
<td>2,840,000</td>
<td>2,850,000</td>
<td>2,650,000</td>
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<td>1,090,000</td>
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<td>1,620,000</td>
<td>1,710,000</td>
<td>1,680,000</td>
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<td>850,000</td>
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<td>720,000</td>
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<tr>
<td>Illinois</td>
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<td>530,000</td>
<td>560,000</td>
<td>550,000</td>
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<td>490,000</td>
</tr>
<tr>
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<td>480,000</td>
<td>490,000</td>
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<tr>
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<tr>
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<td>560,000</td>
<td>540,000</td>
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<td>540,000</td>
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</tr>
<tr>
<td>North Carolina</td>
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<td>360,000</td>
<td>360,000</td>
<td>380,000</td>
<td>380,000</td>
<td>370,000</td>
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<tr>
<td>New Jersey</td>
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<td>370,000</td>
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<tr>
<td>Nevada</td>
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<td>230,000</td>
<td>260,000</td>
<td>280,000</td>
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<tr>
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<td>2,950,000</td>
<td>2,950,000</td>
<td>2,730,000</td>
<td>2,790,000</td>
</tr>
</tbody>
</table>


Source: U.S. Department of Homeland Security

The Future

To examine potential growth in the U.S. labor market, we can look at recent projections made by the U.S. Bureau of Labor Statistics (BLS) of the occupations that are expected to grow the fastest and those expected to expand the greatest during the 2010–2020 period. Among the 15 fastest-growing occupations, seven have high shares of foreign-born workers currently employed in those jobs. This is higher than the share of the total labor force that is foreign-born. Among these occupations, several construction jobs (many filled currently by immigrants and all low-skilled) are projected to be among the fastest growing. Other low-skill occupations that have high shares of immigrant workers include home health aides (24 percent) and personal care aides (23 percent). All of these occupations are expected to grow by 42 percent or more between 2010 and 2020 according to BLS projections. If current trends continue, we would expect to see these largely “3 D” occupations filled disproportionately by immigrants.

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THE OCCUPATIONAL AND PERSONAL HEALTH STATUS OF THE SUOP TARGET POPULATION: US IMMIGRANT WORKERS IN “3D” JOBS
WHY ALL THE FUSS ABOUT IMMIGRANTS IN “3D” JOBS?
Why All The fuss About Immigrants in “3 D” Jobs?

Due to the overrepresentation of the foreign born in “dirty, dangerous, and difficult” jobs, immigrants, particularly the unauthorized, can be at greater exposure than native born workers for workplace accidents, injuries caused by repetitive movement and strain, and even death. The health costs for foreign-born laborers working under such conditions include fatal and nonfatal injuries, toxic exposures, chronic illness or disease, and negative impacts on mental health.

What’s more, a number of other factors further expose immigrant workers and their families to further occupational, personal, and family health risks. These factors include, but are not limited to:

- poverty,
- non-native language abilities,
- migration,
- the lack of labor rights and opportunities for collective bargaining,
- reduced access to workers compensation protection,
- reduced protection against child-labor abuses (especially in agriculture),
- the lack of health insurance,
- the relative lack of access to health care, and
- poor access to family and other support systems.

Therefore, SUOP believes that there are several areas of serious concern for us and for the nation in re: immigrant workers in the “3D jobs”:

- Their Occupational Health and Safety Status and Their Access to Quality OHS Services
- Their Personal Health Status and Their Access to Quality Healthcare
- Their Family Health Status and Their Access to Quality Family Healthcare

In the subsequent sections of this paper, we will be discussing and reporting on the current state of affairs with respect to each of these concerns and – where possible – opining on the future of these issues if no new action is taken.

Again, it is NOT our intent to proffer solutions for what we find, but rather to assess and validate the quantity and severity of health-related problems in the SUOP Target Population in the hope that, given the demographic shifts in our US population and the likelihood of a continued influx of foreign-born workers to populate the “3D” jobs, by “naming the baby”, we can more successfully and sustainably address the health related issues in that population that they and we will continue to struggle with.

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30 “Young Migrant Workers Toil in U.S. Fields”; Karen Fanning; As Published in SCHOLASTIC NEWS, Online Edition. Copyright © 2007 by Scholastic Inc.; http://208.106.244.178/pdfs/Part%201H-Young%20Migrant%20Workers%20Toil.pdf

31 Migration and Occupational Health: Understanding the Risks, Marc Schenker, October 2011; Migration Policy Institute Information Source, http://www.migrationinformation.org/Feature/display.cfm?ID=856
THE OCCUPATIONAL HEALTH STATUS OF US IMMIGRANT WORKERS IN “3D” JOBS
Despite the relative paucity of research on the occupational health of immigrants, many published studies and various reports indicate a consistent pattern of higher occupational morbidity and mortality among immigrant workers, especially those in in SUOP White Paper Target Population.

**OCCUPATIONAL FATALITIES**

Analysis of the US National Traumatic Occupational Fatality surveillance system (NTOF) showed an increase in occupational fatalities among Hispanics in the 1990s, at the same time, the rate was decreasing among non-Hispanics and blacks. This study also confirmed the presence of marked regional differences in occupational fatality rates, with higher rates of occupational fatalities for all race or ethnic groups observed in Southern states.

The disproportionate share of occupational fatalities among immigrants in large measure relates to the types of occupations immigrants choose. For example, in the United States, the three occupational groups with the highest rates of occupational fatalities — transportation, construction, and agriculture — are the three groups with the highest proportion of immigrant workers.

Only 8.0 percent of recorded occupational fatalities occur among women.

Consideration of occupational fatalities within specific occupations has also shown similar findings:

- **Construction:** Overall, the risk of an occupational fatality among Hispanic construction workers was nearly twice the risk among non-Hispanics. Another study of occupational fatalities in New Mexico from 1998 to 2002 analyzed two different datasets and found that non-US citizenship was an independent risk factor for work-related deaths.
- **Agriculture:** Fatalities in agricultural occupations rank among the highest for all workers in the United States, and Hispanic immigrants dominate the agricultural workforce — particularly in the states of California, Texas, and Florida. Thus, the finding of increased occupational fatalities among agricultural workers is consistent with an increased rate of occupational fatalities among immigrant workers.
- **Retail:** Analysis of occupational fatalities in the retail trade industry from 1992 to 1996 found that workers had a markedly increased risk of violent deaths compared with workers in other industries. The increased risk was independently associated with being a foreign-born worker.

Common explanations for the root causes of increased occupational fatalities among immigrant workers include the following:

- overrepresentation of immigrants in jobs with increased rates of injury and fatalities overall,
- the assignment of more hazardous tasks to immigrant workers,
- the failure of employers to invest in safety training and equipment for immigrant workers,
- greater risk-taking by immigrant workers,
- economic pressure to continue working despite chronic pain or illness, and
- fear of and/or failure of workers who may have precarious job or immigration status to complain about unsafe conditions.

A common correlate of precarious work status among immigrant workers is psychological distress related to impact of being isolated from family and community support, of inadequate living situations, and the economic effects of injuries. This distress can and often does result in an exacerbation of chronic health problems and/or lower perception of one’s health.

**NONFATAL OCCUPATIONAL INJURIES**

In 2000, Hispanics comprised about 10.2 percent of the US workforce but accounted for 17.1 percent of occupational injuries and illnesses. National data from the Bureau of Labor Statistics also show that Hispanic workers have greater days away from work due to occupational injury or illness than all other race or ethnic groups. The four US industries with the highest occupational injury rates are construction, agriculture, manufacturing, and transportation, and all of these industries have a large and increasing proportion of immigrant workers.

In a 2002 population-based study of 427 Hispanic immigrant workers in a Washington, DC suburb the occupational injury rate was 70 percent above expected rates for US workers. The median lost time from work was 13 days and 29 percent of the study’s population had to change jobs because of the injury. Over one-half the subjects reported not having workers’ compensation and only 20 percent had medical insurance.

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DAY LABOR
Day labor is a highly viable work option for many immigrants, especially the unauthorized. Day labor employment is comprised of short-term, informal work agreements with employers and can entail a wide range of jobs, from construction and maintenance to landscaping and garment production. Day labor is a form of precarious work for the large immigrant labor pool performing contingent work, a practice that has increased with the downsizing and outsourcing of maintenance and construction work.

Day laborers in the United States are predominantly young, male, Hispanic, unauthorized immigrants. Consistent findings indicate increased rates of occupational injuries, lack of health insurance, and limited workers’ compensation. Job segregation by sex is common, with men dominating construction and maintenance jobs and women performing cleaning and garment work.

A 2008 survey of day laborers found immigrant workers were one and a half to two times more likely than nonimmigrant workers to report hazardous work conditions, controlling for type of work.

AGRICULTURE
The US agricultural workforce is also dominated by Hispanic immigrants who are predominantly male, poor, and unauthorized. In California and other locations, over 85 percent of hired farm workers are Hispanic immigrants. Agriculture has been recognized for years to have increased fatal and nonfatal injury rates plus a wide range of occupational illnesses, including disorders of multiple organ systems. Agricultural work has a high fatality rate, with 21.3 deaths per 100,000 workers per year, compared with the overall worker rate of 3.9. In addition, those working in agriculture have an increased risk of toxic exposure as a result of poor or no use of PPE, poor availability of information on chemicals that are being used, etc.

CLEANING
Female immigrants dominate cleaning occupations, both in commercial and residential settings. Recent research has documented very high prevalence rates of severe neck and back pain among hotel cleaners associated with physical workload, work intensification, and ergonomic stresses. Additionally, barriers to workers’ compensation were apparent in this population.

DATA COLLECTION ISSUES WHEN STUDYING OCCUPATIONAL HEALTH ISSUES IN AN IMMIGRANT POPULATION
When conducting research on occupational health in an immigrant population, researchers often have trouble developing a valid sampling frame because of the large proportion of informal work arrangements, use of labor intermediaries, short-term job placements, and absence of standard identification data (e.g., social security numbers) among immigrant workers.

If the workers are migrating from job to job the data collection difficulties are multiplied ten-fold especially with respect to follow up studies and follow up care activity.

In addition, even standard population-based surveys such as the Hispanic Health and Nutrition Examination Survey, or HHANES, tend to exclude large segments of the population by their urban-focus, language of practice, or residential stability requirements. Additionally, immigration status is frequently not recorded on surveys or may not be reported by immigrants for fear of coming under enforcement scrutiny.

Language and culture are also barriers to successful research on immigrant populations, as subjects are frequently not fluent in the dominant language and are thus excluded from research studies. Even bilingual studies may exclude subjects fluent in different dialects or languages, especially when considering the increasing number of farm workers from Mexico who speak only indigenous languages such as Mixtec, Zapotec, and Triqui.
THE PERSONAL HEALTH STATUS OF US IMMIGRANT WORKERS IN “3D” JOBS AND THEIR FAMILIES
CURRENT FACTORS THAT CAN AND DO NEGATIVELY AFFECT THE PERSONAL AND FAMILY HEALTH STATUS OF THE SUOP TARGET POPULATION

1. STRUCTURAL FACTORS

- Data collection on personal and family health issues as well as provision of care in this population is hampered by the aforementioned obstacles, i.e. accurate, comprehensive data systems, language and dialect barriers, cultural barriers, migration, etc.
- Undocumented status that leads to fear of reprisal and/or enforcement at care points
- Preference for alternative medicine practices, treatments, and practitioners
- Preference for home country medical care
- Relative lack of consistent access to public, personal and job-based health insurance. Nearly 15% of the total US population is without health insurance, but among noncitizens, that rate is 43.8% and growing.
- Inconsistent or non-existent access to sufficient dental services despite significant demonstrated need
- Inconsistent or non-existent access to sufficient mental health services despite significant demonstrated need
- Severe poverty
- Reduced access to preventive services
- Relative lack of access to maternal and child health services, pap smears, mammograms, etc.
- Suboptimal access to proven methodologies and services such as premenstruals
- Reduced educational levels and access
- Reduced cyclical, so-called “permanent migration” patterns with an increase in unauthorized access
- Adult immigrants from Mexico are by far the least likely to have a place they usually go for medical care and the least likely to regularly visit a doctor.
- A significant portion of the health care for undocumented immigrants comes through emergency departments. This has increased the overall costs of health care; changed our focus from preventive care to emergency treatment; contributed to delays in identifying illnesses until later, more advanced stages; and increased the level of disease within a community.
- Information about health and health care is transmitted more commonly by word-of-mouth

2. HEALTH BEHAVIORS

- Immigrants from Mexico are less likely to have had a colorectal exam in the past year. The great majority of all immigrants age 50 and older have never had a colorectal exam.
- Immigrants from Mexico are less likely to have had a flu shot in the past year. Over half of immigrants age 65 and older did not have an influenza immunization in the past year. Annual flu vaccine initiatives are not adequately reaching Mexican immigrants.
- Mexican immigrant women have the lowest rates of obtaining pap smears and mammography exams. Breast cancer remains the second most common cause of cancer deaths among women in the U.S. Recent Mexican immigrants have the lowest rate of obtaining pap smears: one-third of women age 18-64 did not have the test in the previous 3 years, the recommended period.
- Recent Mexican immigrants are the least likely to receive regular dental care even when it is available. The dental care annual rate of recent immigrants is extremely low (30%).
- Immigrants from Mexico use E.R.s about half as often as the U.S.-born, whether white or Mexican American.
- Long-stay Mexican immigrants and U.S.-born Mexican Americans have higher rates of Diabetes than U.S.-born whites.
- Higher percentages of long-stay Mexican immigrants and U.S.-born Mexican Americans report being in worse health than do U.S.-born whites. It is unknown; however, if worsening health status is a result of years of difficult labor and poverty, changing health behaviors like diet and smoking, or insufficient preventive medical care.
- Mexican immigrants do not routinely have access to and – for a variety of reasons – are less compliant with Chronic Disease Management efforts on their behalf
- Immigrants are frequently the victims of toxic exposures with acute and/or chronic symptoms which can be difficult to diagnose and manage.
- In addition, agricultural workers have increased rates of nonfatal injuries, chronic pain, heart disease, and many cancers.

33 “Immigrant health care in the United States: What ails our system?”; Katherine G. Footracer, MS, PA-C, CMT; www.jaapa.com • APRIL 2009 • 22(4) • JAAPA
MIGRANT FARMWORKERS: A VERY SPECIAL CASE
MIGRANT FARMWORKERS:
SOME PERSPECTIVES
The Health Status of Immigrant Workers in the US: A Work In Progress

The situation with respect to the health and safety of migrant farmworkers can only be described as the “perfect storm” of immigrant labor in the US: very hard, dangerous, and unsafe work with high mortality, a forced dangerous and/or deadly entrance path, few legal protections, health and emotional risks, extremely poor access to health care, constant fear of discovery, no chance for advancement, constantly moving from place to place, subjected to economic and personal abuse, non-existent customer appreciation and feedback, etc. It’s everything you want a job not to be!!

SOME RELEVANT QUOTES…

“People are not migrants by choice. We depend on misfortune to build up our force of migratory workers, and when the supply is low because there is not enough misfortune at home, we rely on misfortune abroad to replenish the supply.”

“The apparent invisibility of production is a form of social forgetting, a politics of glossing over the real social and economic relations that allow for our high standard of living. Considering the world of farm laborers presents a powerful corrective to a society easily enamored with its own self-serving myths. Still, it is Americans’ deep rooted desire to believe in equality and the march of progress that makes farmworkers’ situation so poignant, creating a discomfort born of our country’s failure to live up to its own ideals.” Those of us who are privileged to interact with migrant patients during a time of need, when they may be at their most vulnerable and fearful, can stand as the example of how they should be treated by society. We can indeed be a force for justice for the health care of the mobile poor. DANIEL ROTHENBERG (Author of “With these Hands”)

“Every time we sit at a table to enjoy the fruits and grain and vegetables from our good earth, remember that they come from the work of men and women and children who have been exploited for generations.”
CESAR CHAVEZ, CO-FOUNDER, UNITED FARM WORKERS

Farmworkers are some of our nation’s most vital workers, as their labor enables us to enjoy high quality, low-cost, fresh fruits and vegetables all year round. Despite farmworkers’ economic and cultural contributions to the communities where they live and work, they continue to be the some of the lowest paid, least protected, and unhealthiest workers in the United States.

“Before the free trade agreement the harvest was well paid, especially for corn and beans. But then, free trade arrived and prices went down from there. A kilo of corn now costs a peso, and what’s a peso worth? Nothing… less than a quarter.”
CRAVEN COUNTY FARMWORKER, NORTH CAROLINA

“These workers are doing work that American people will not do. We depend on farmworkers, and we can’t be in business without them.”
SAMPSON COUNTY FARMER, NORTH CAROLINA

35 NCFI FARMWORKER FACT SHEET http://www.ncfarmworkers.org/resources/
37 NCFI FACT SHEET ON MIGRANT FARMWORKER CONTRIBUTION TO NC ECONOMY; http://www.ncfarmworkers.org/resources/#Facts; References #12: WRAL Focal Point, Migrant Housing Video, 2005.
A US TIMELINE ON AGRICULTURAL LABOR

PLUS ÇA CHANGE,
PLUS C'EST LA MÊME CHOSE !
Timeline of Farm Labor and Immigration

From slavery to the present day, our agricultural system has consistently relied upon the labor of displaced people who lack political power, labor protections, voting rights, and the full benefits of citizenship. In addition, they have been separated from loved ones by an increasingly militarized US-Mexico border. Farmworkers still confront these hurdles today.

1600s–1800s: Colonial America & Slavery
- White laborers brought from England as indentured servants were guaranteed passage to the colonies in exchange for years of hard labor, usually in the fields.
- Because they did not provide enough labor to support growing agricultural production for the export market, Africans were brought to the colonies in slave ships where millions died.
- Forced into slave labor in the fields, they formed the backbone of the US agricultural industry.

Late 1860s–1870s: Reconstruction
- The Thirteenth Amendment prohibited slavery and involuntary servitude, but many were forced back into low-wage sharecropping and segregation under Jim Crow Laws from the 1870s well into the 1900s.
- The System was called “peonage” and was outlawed. Did not actually stop until WWII. Was chronicled recently on PBS Documentary entitled “Slavery By Any Other Name”.

1860s–1930s: Immigrants in California
- During the 1860s, large-scale farming brought Asian workers to supplement local and Mexican laborers.
- By 1886, seven out of every eight farmworkers in California were Chinese.
- When Chinese laborers began to organize, they were replaced by Japanese workers.
- Filipinos replaced Japanese workers when they in turn began to organize.

1880s: East Coast Migration
- Due to changes in agriculture, the end of slavery, immigration policy and fluctuations in employment opportunities, migrant labor became an important part of East Coast agriculture.
- French Canadians & Italian immigrants worked in the Northeast, and African Americans from the South began to migrate along the East Coast.

World War I
- Because of a shortage of farmworkers during World War I, Congress passed the Immigration and Nationality Act in 1917, creating a legal pathway for 73,000 Mexican workers to enter the U.S.

1930s: Great Depression, Dust Bowl Years
- As a result of the 1917 legislation, many Mexicans continued to come to the United States to find work even after the war. Then, in a reversal of policy brought on by job losses during the Great Depression, the Immigration and Naturalization Service worked with Mexican authorities to deport approximately 40,000 Mexican Americans.
- Over 300,000 Oklahomans, Texans, Arkansans, and Missourians settled in California during the 1930s. Hundreds of thousands of farmworkers went on strike for higher wages in California, South Florida, and New Jersey.
- Also in the 1930s, national labor laws were passed which excluded farmworkers and domestic workers from child labor protections, overtime pay, minimum wage, and the right to organize.

1941–1964: Importation of Guestworkers
- Over 100,000 European prisoners of war labored on farms in the Southeast.
- Laborers from the Bahamas, Jamaica, and Barbados worked in sugarcane, citrus and vegetable production in Florida and on the East Coast.
- Italian farmworkers were replaced by Puerto Ricans in the Northeast.
- Under the Bracero “Strong Arm” Program, Mexican farmworkers were imported by the federal government for work on farms and railroads to supplement wartime labor shortages.
- The Bracero Program was terminated under controversy in 1964, but the H2A Guestworker Program continues today, currently recruiting over 20,000 workers each year for employment in agriculture.
- During the economic boom that followed World War II, President Eisenhower expelled 1.5 million Mexican farmworkers, sixty percent of whom were legal residents, through “Operation Wetback.”

1970s–1990s: New Immigrants
- As African Americans moved into other industries, immigrants migrated towards jobs in agriculture.
- Haitians began arriving in Florida during the 1970s, to be replaced in the 1980s by workers from Mexico and Central America.

References:
38 NCFI FARMWORKER IMMIGRATION SHEET [Website].
41 National Center for Farmworker Health, Inc. Available at: http://www.ncfhw.org/?sid=36.
42 NCFI FARMWORKER IMMIGRATION SHEET [Website]; Reference #6: Poverty in the United States: An Encyclopedia of History, Politics, and Policy, eds. Gwendelyn Mink and Alice O’Connor. Santa Barbara: ABC-Clio, 2004
The 1986 Immigration Reform and Control Act (IRCA) granted residency to over three million undocumented immigrants, about half of them farmworkers. Many left farm work and were replaced by a new wave of undocumented workers. H2A workers were denied permanent residency under IRCA though many had been coming to the United States legally for as many as twenty years.

1994: NAFTA YEARS
- NAFTA was signed, and two million Mexican agricultural jobs were lost due to heavily subsidized United States farm products imported to Mexico.
- This constituted a new factor pushing Mexican immigrants to the United States.

TODAY (2007)
- Over 50% of immigrant farmworkers nationwide are not protected by legal documents.
- Close to 90% of farmworkers are Spanish-speakers, the vast majority born in Mexico.
- More indigenous workers from rural Mexico and Central America are arriving, as well as guestworkers from Asia.

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The Health Status of Immigrant Workers in the US: A Work In Progress

Why Focus on This Population?
As mentioned previously the migrant farmworker population in the US (upon whom we depend so very greatly) are among the least paid, hardest working, and least rewarded immigrant workers in the US. Nowhere is their plight more obvious than in the statistics relating to their occupational and personal health status, their access to quality healthcare services, and in the myriads of anecdotal horror stories one hears at meetings of migrant clinicians, occupational health providers, and farm worker advocacy groups all over the US.

With but few exceptions, the story told of their health status and access to healthcare is almost the same today as it was ten years ago, twenty years ago, and even 50 years ago at the time of “Harvest of Shame.” In many ways our relative lack of progress in this arena makes one think of what Albert Einstein said when asked for the definition of insanity. His answer: “It’s when you keep on doing the same thing and expect a different result.”

Given the huge changes, discussed earlier, in our US workforce and our increasing dependency on these workers, SUOP believes that it is time for a reality check and a “sanity” check relative to the health status of and access to healthcare for the migrant farmworker and his or her family.

If as we will show in this paper that we are still a long, long way from declaring victory in this war for the health of migrants, SUOP would like to explore all possible avenues and potential partnerships to break the “Einsteinian Conundrum” and make it possible when we write a follow-up report to this one to say that things really have changed.

A tall order indeed, but as William Shakespeare so accurately said, “Nothing Ventured, Nothing Gained.”

What Is A Migrant Farmworker?
- A migrant farmworker is “an individual whose principal employment is in agriculture on a seasonal basis, and who, for purposes of employment, establishes a temporary home.” 48
- Today…migrants in the US have many occupations and participate in many industries in addition to farming (such as construction, poultry and meat processing, and domestic services).
- However, the term “migrant” in the US is most often interpreted as relating to farm workers harkening back to the 1930’s when “migrants” moved in large numbers from the dust bowl states to work in the agricultural fields of California and the Pacific Northwest, encountering discrimination and hardship for themselves and their families the whole way (as chronicled in the photography of Dorthea Lange, the writings of John Steinbeck, and the music of Woody Guthrie and Cisco Huston).
- For our purpose, then, a migrant farmworker is someone who works primarily in agriculture or an agriculture-related industry, like food processing 49.
- Migrant vs. seasonal:
  - Migrant farmworkers travel from place to place to work in agriculture and move into temporary housing while working 50; Some “Migrant” farmworkers move from ‘home base” communities in patterns known as “migrant streams” 50.
  - Seasonal farmworkers work primarily in agriculture, but live in one community year-round 50.

What Do Migrant Farmworkers Do?
- Farmworkers play a vital role in cultivating the food we eat every day. Even though 85 percent of our fruits and vegetables are harvested by hand, ‘farmworkers remain largely invisible” 51.
- They all too frequently work for extremely low wages in unsafe environments with hazardous chemicals or waste, dangerous machinery, sparse training, little protective gear, and few labor rights 51.
- Agricultural labor includes planting, cultivating, harvesting and preparing crops for market or storage 52.
- Other migrant farmworkers are employed in the fishing, construction, meat packing and dairy industries 53.

49 http://www.hud.gov/groups/farmwkercolonia.cfm
53 http://www.migrant.net/pdf/farmworkerfacts.pdf
With respect to their work, these workers are [gradually] moving from small fruit orchards and vegetable crops to settings such as confined animal feeding operations (CAFOs), as well as meat-packing and other food processing plants.  

A need for low-wage workers in newer migratory industries such as landscaping, forestry, nurseries, construction, fisheries, restaurants, hotels, and factory and warehouse work has also developed.  

A 2007 study by the Oregon Center for Public Policy (OCPP) estimated that undocumented immigrants contribute between $66 and $77 million in property taxes, state income taxes, and excise taxes annually in Oregon. The Social Security Administration estimates that nationwide, undocumented workers contribute $7 billion in social security taxes and $1.5 billion in Medicare taxes annually.  

On average, the National Research Council estimates each undocumented immigrant will contribute approximately $80,000 more per capita over his/her lifetime than he/she will consume in governmental services.

### How Many Migrant Farmworkers Are There In The US?

- Approximately 1.6 million migrant farmworkers work on American soil, harvesting fruits and vegetables for American consumers, as well as for export, thus contributing to the American economy.  
- There are two to three million farmworkers in the United States.  
- The number of Mexican and other Latino farmworkers throughout the country, including the Northeast, has grown in recent years due, in part, to programs like the H-2A guest worker plan.  
- Over 150,000 farmworkers and their dependents labor each year in North Carolina alone in crops including tobacco, greenhouse and nursery, Christmas trees, vegetables and fruits.

### Where Do They Come From?

- Though it has at times changed (and will continue to change), at present it appears that the majority of this population of workers is composed of Latinos (from Mexico and Central America).  
- Migrant farmworkers are primarily of Mexican origin but others come from Jamaica, Guatemala, Puerto Rico, Honduras, the Dominican Republic, Haiti and other countries.  
- 81% of all farmworkers are foreign-born.  
- 77% of all farmworkers were born in Mexico. They continue a long tradition of people from Mexico harvesting crops in the southwestern United States, including those who came here through the historic “Braceros” program started in the early 1940s to bolster our work force as “soldiers of the fields and railroads” to help the U.S. win World War II.  
- The demographics, ethnic composition, and even job categories of the “Mobile Poor” have been in a continuous state of flux and are subject to “shifting political and economic winds.”  
- Immigration to the United States has increased notably since the 1994 signing of NAFTA, a free trade agreement that has driven over two million Mexican farmers out of business.

### What Is Their Legal Status?

- An estimated 70% of migrant farmworkers (or 24% of all farmworkers) are undocumented, and the majority live below the poverty line.
The H-2 A visa program continues today, allowing foreign nationals to enter the U.S. for temporary agricultural work and requiring that they return to their home country after a given amount of time. Many of these workers over-stay this time period, thus becoming “undocumented” immigrants.63

According to a 2005 survey, 53% of farmworkers are undocumented (without legal authorization), 25% are United States citizens, and 21% are legal permanent residents.64

Growers and labor unions say as much as 70 percent of younger field hands are illegal.65,66

Based on March 2008 data collected by the Census Bureau, the Pew Hispanic Center estimates that unauthorized immigrants are 4% of the nation’s population and 5.4% of its workforce. Their children, both those who are unauthorized immigrants themselves and those who are U.S. citizens, make up 6.8% of the students enrolled in the nation's elementary and secondary schools67

Where Do They Go in the US?

Migrant farmworkers and their families live and work in every state in the country58. The states with the highest farmworker population are California, Texas, Washington, Florida, Oregon, and North Carolina.68

Why Did They Come To The US?

Pull Factors

Because agriculture is one of the most dangerous and lowest-paying occupations in the United States, the US agricultural industry cannot recruit citizens to fill much-needed jobs69.

Rather than improve wages and conditions in the fields, the agricultural industry recruits workers abroad where there are more laborers, fewer jobs, and much lower wages70.

Workers are also lured to labor on United States farms by the promise of a better life for themselves or their children: the “American Dream.”70

Push Factors

Many people in developing countries face extreme poverty, lack of jobs, natural disasters, armed conflict, and civil unrest.70

As economic refugees, many immigrant farmworkers have made the difficult decision to leave their homes and families in search of new possibilities in the United States.70

Globalization

Economies are developing in increasingly interconnected ways and international trade is occurring at unprecedented levels70. This process of overlapping markets and free trade is called globalization70.

International agreements like the North American Free Trade Agreement (NAFTA) have increased imports to developing countries, but have not eliminated government subsidies for those products; this allows wealthy countries like the United States to sell some products below what they cost to produce70,70.

Under NAFTA, the United States increased corn exports to Mexico by 240%71, and during certain years was able to sell corn 30% below its cost of production.72

63 Historical and Contemporary Factors Contributing to the Plight of Migrant Farmworkers in the United States, Safina Koreishi, MD, MPH and Martin Donohoe, MD, FACP; Social Medicine (www.socialmedicine.info) Volume 5, Number 1, March 2010
66 Farm Workers; The Rising Farmworker Dream Fund (RFDF); http://www.risingfarmworkers.org/farmworkers/
Unable to compete with subsidized imports, over two million Mexican farmers have lost their jobs since 1994, and many have sought employment in the United States as a means of survival.\(^\text{73}\)

### How Did They Get Here?

- For many in this population (the undocumented) just getting into this country poses huge health and safety risks that many find just a part of doing business due to their extreme economic need. Many risk their lives to enter the U.S.\(^\text{74}\).
- There were over 5,000 border crossing deaths reported along the U.S.-Mexico border between 1993 and 2009, underscoring the extreme risks migrants take in order to just work.\(^\text{74}\).

### Who Are They: Age/Gender/Language/Education?

- The average farmworker age is only 31 years since it is difficult for older workers to perform such physically demanding labor.\(^\text{59}\).
- 80% of farmworkers are men who often must leave their families behind while they seek work,\(^\text{59}\) and most are younger than 31.\(^\text{60}\).
- Five out of six farmworkers are native Spanish speakers.\(^\text{59}\).
- Most farmworkers are married and/or have children; yet almost six out of ten farmworkers live apart from their immediate family members.\(^\text{64}\).
- Low education levels: The median highest grade of school completed by farmworkers is sixth grade. Thirteen percent of farmworkers have completed less than three years of schooling, and 13% have completed high school.\(^\text{64}\).

### What Are Their Working Arrangements in The US and How Are They Treated?

- Nevertheless, it is estimated that about one sixth (17%) of workers performing seasonal agricultural services literally “follow-the-crop,” and an additional 39% “shuttle” back and forth between a home base, most often in Mexico, and a single, specific U.S. location where they find employment.\(^\text{293}\).
- Turnover is very high among these workers. Roughly one third (32%) of the foreign-born workers had been in the United States for two years or less. In other words, fully one quarter (26%) of the labor force had been replaced in just two years.\(^\text{293}\).
- Much farm work is seasonal and workers cannot earn money in bad weather, while waiting for crops to ripen, when they are sick, or when traveling to their next job.\(^\text{53, 59}\).
- However, farmworkers are usually employed by farm owners or by “crew leaders,” who serve as intermediaries between growers and workers.\(^\text{75}\).
- As noted, once in the US, those in the “Mobile Poor” population are very likely to endure unfair labor practices and unsafe workplaces.\(^\text{76}\) Numerous stories of the ill-treatment of migrant workers have been told.\(^\text{77}\).
- Some employers may prefer migrant or even undocumented workers, whom they may see as willing to do more work for less pay and having little or no recourse to the law.\(^\text{78}\).
- In many ways, the plight of farmworkers is similar to that of the former slaves victimized in the post-Civil War period (up until the time of WW II) under the “peonage” system recently and vividly chronicled in the PBS Special: “Slavery By Any Other Name.”\(^\text{79}\).
- Such pressures make workers reluctant to miss work and afraid of losing their jobs if they take time off to get medical care\(^\text{80}\) and create a work force less likely to report workplace safety and wage violations, less likely to have access to training and protective equipment, and less likely to seek medical attention.\(^\text{81}\).

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\(^{75}\) [NCFI-US FARMWORKER FACTSHEET](http://www.ncfarmworkers.org/resources/#Facts).


\(^{79}\) “Slavery By Any Other Name,” [http://www.slaverybyanothername.com/](http://www.slaverybyanothername.com/)

Many remain undocumented and thus even more vulnerable to the immigration enforcement system and – even worse – to unscrupulous and predatory practices of labor contractors and coyotes.82

Migration is highly stressful, as the facts recounted here suggest. In addition, migrant workers are often separated from their families, traveling on their own with no support.83

A migrant farmworker’s health status is often affected by environmental and occupational exposure (often unknowingly) to hazardous chemicals, dangerous and repetitive work activities, to unsanitary housing and to onerous working conditions, i.e. long days with sun and heat exposure, no access to sanitary facilities, high work content involving bending and stooping or work at full arm extension, etc.78

Many large food corporations have consolidated under the pressures of globalization. They subsequently underpay their growers and maintain poor working conditions in order to achieve a competitive advantage in the global food market. This situation has led to forced labor, beatings, sweatshop conditions, and modern-day slavery, which will be discussed in further detail below.84

According to a statement written by the Robert F. Kennedy Memorial Center for Human Rights, on behalf of the National Economic and Social Rights Initiative and the Coalition of Immokalee Workers (CIW), in Florida, [about migrant conditions in areas of Florida] inhumane working conditions are widespread:

“How Much Do They Make?

12% of all farmworkers earn less than the minimum wage.

Farmworkers’ average annual income is $11,000; for a family it is approximately $16,000. This makes farm work the second lowest paid job in the nation (after domestic labor).85 Farmworkers on the East Coast earn about 35 percent less than the national average.81

From 2001-2004, 29% of hired crop workers interviewed in the Department of Labor’s National Agricultural Workers Survey (NAWS) had family incomes that were below the federal poverty level.87

Farmworkers are often paid piece-rate by the bucket; in some states they earn as little as 40¢ for a bucket of tomatoes or sweet potatoes. At that rate, farmworkers have to pick around two tons of produce (125 buckets) to earn $50.84

Though farmworker wages have increased slightly over the last decade, after adjustment for inflation they have actually decreased by 5%.83

According to a recent study, nearly five out of ten farmworker households in North Carolina cannot afford enough food for their families.

What Are The Protections and Benefits For Adult Farmworkers?

- **WAGE PROTECTIONS:**
  - Most farmworkers are exempt from minimum wage laws, and all are exempt from overtime provisions, despite long work days during peak harvest.  
  - Minimum wage: The Fair Labor Standards Act of 1938 (FLSA) originally excluded all farmworkers, and was amended in 1978 to mandate minimum wage for workers on large farms only.
  - Overtime pay: The FLSA has never been amended to provide overtime for farmworkers, and only a few states have passed laws requiring it.

- **WORKERS COMPENSATION:**
  - Only 13 states require employers to provide workers’ compensation coverage to migrant and seasonal agricultural workers to the same extent as other workers.
  - For many of these workers injured or exposed on the job, the resource available to most American workers, workers compensation is just not available.
  - In North Carolina most growers are exempt from laws requiring Workers’ Compensation for farmworkers who are injured on the job.

- **OTHER BENEFITS:**
  - Despite pervasive poverty, less than 1 percent of farmworkers collect general assistance welfare nationwide.
  - Only 10 percent of farmworkers report having health insurance through an employer health plan.
  - Fewer than 4 out of 10 workers interviewed said that they would receive unemployment benefits if out of work.

- **OTHER LABOR RIGHTS:**
  - Labor organizing: Farmworkers were excluded from the National Labor Relations Act of 1935, which protects workers acting collectively to form union.
  - There is no protection under North Carolina or federal law for farmworkers to organize a union, work overtime, take sick leave, or for those who are laid off from their jobs.
  - HUNGER: Nearly 5 out of 10 North Carolina farmworkers cannot afford enough food for themselves and their families.

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91. [http://www.ncfarmworkers.org/learn/introduction-to-farm-work/](http://www.ncfarmworkers.org/learn/introduction-to-farm-work/)
92. NCFI US FARMWORKER FACT SHEET [http://www.ncfarmworkers.org/resources/](http://www.ncfarmworkers.org/resources/)
93. NCFI FACT SHEET ON MIGRANT FARMWORKER CONTRIBUTION TO NC ECONOMY; [http://www.ncfarmworkers.org/resources/#Facts](http://www.ncfarmworkers.org/resources/#Facts);
References #10: NCGS 97-13(b)
94. Overview of America’s Farmworkers (n.d.) from the National Center for Farmworker Health’s website, accessed 10/6/2006 at: [http://www.ncfh.org/aaf_02.php](http://www.ncfh.org/aaf_02.php);
What Are The Protections and Benefits For Child Farmworkers?

- Each year, an estimated 300,000 to 800,000 children toil under the hot sun while working on farms across the United States. Though their labor contributes to the U.S. agriculture industry and undoubtedly helps put food on the tables of many Americans, child agriculture laborers do not benefit from their time spent in the fields. Instead, these children are at risk of losing their childhood, their health and their education.

- The International Labour Organization defines child labor as work that:
  - Deprives children of their childhood, their potential and their dignity, and is harmful to physical and mental development.
  - Is mentally, physically, socially or morally dangerous and harmful.
  - Interferes with their schooling by depriving them of the opportunity to attend school, obliging them to leave school prematurely, or requiring them to attempt to combine school attendance with excessively long and heavy work.

- CHILD LABOR LAWS
  - Children working in agriculture do not receive the same protections provided to other working youth. The following are a list of laws that govern youth employment in agriculture and how they compare to children working in other occupations under the Fair Labor Standards Act (FLSA).
    - Children ages 16 and above may work in any farm job at any time including performing hazardous work. Children in other occupations cannot perform hazardous work until age 18.
    - Children working in agriculture can work unlimited hours outside of school hours. Children working in all other occupations have strict limits on the amount of time they can work outside of school.
    - The standard minimum age for children being able to work in agriculture is 14. The standard minimum age for children being able to work in all other occupations is 16.
    - Children even younger than 12 are permitted to work in the fields as long as they have their parent's permission, with no restrictions on hours except that they cannot work during school hours. Children working in all other occupations are permitted a few exceptions to the standard minimum age. They have strict limits on hours, such as not more than 3 hours on a school day and not more than 8 hours on a non-school day.
    - Despite the laws, children of all ages can be found working in the fields.

- CHILD FARMWORKER PAY, PROTECTION AND OTHER BENEFITS
  - Children who work more than 40 hours per week in agriculture are not entitled to overtime pay. Children working in all other occupations are not allowed to work more than 40 hours a week.
  - Children who work in the fields are exempt from minimum wage provisions in certain cases. Children working in all other occupations are required to be paid minimum wage.
  - Though child agriculture workers risk their health, life and education when working on farms, they are often severely underpaid or paid nothing for their labor.
  - Growers often pay farmworkers piece rate wages. This works well for stronger quicker workers, but hurts slower ones such as children. As a result, many children can only make as little as $2 to $3 an hour.
  - The National Agricultural Workers Survey (NAWS) found that agricultural workers aged fourteen through seventeen earned just over $4 an hour, on average.
  - In some cases, children who are entitled to minimum wage earnings work alongside their parents but are not paid any wage especially when parents are paid on a piece-rate basis.

97 NCFH Fact Sheet on CHILD LABOR; 2009; http://www.ncfh.org/?pid=5
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Where employers are aware that children are working in this way, they are required by law to pay the children for this work. However, often times these children are not paid at all. 102

CHILD FARMWORKERS: HOW MANY ARE THERE?

The Department of Labor posits that 6% of all farmworkers were between the ages of 14 to 17 years old, which means somewhere between 180,000 and 300,000. 103

The United Farm Workers of America (UFW) has cited estimates as high as 800,000. 96

The U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS) stating that 431,730 youth between the ages of 12 and 17 are hired for agricultural work annually. 103

What About Their Housing?

Across the United States, migrant farmworkers face severely rundown housing, overcrowding issues, and high housing costs. 104 87

33% of farmworkers live in moderate to severely substandard housing. 104

About 33% of farmworkers pay more than 1/3 of their income for housing. 104

Areas in the US with the most serious farmer worker housing problems* are Florida and the Northwest. 104

The 52% crowding rate for farmworkers is 10 times the national average. 104

88% of farmworkers are estimated to be Hispanic; 45% have children. 104

Housing effects: Poor migrant housing conditions lead to increased prevalence of lead poisoning, respiratory illnesses, ear infections and diarrhea. 105

What About Adult Farmworker Occupational Safety and Health?

The agriculture industry is one of the most dangerous occupations in the United States. While farmworkers face workplace hazards similar to those found in other industrial settings, such as working with heavy machinery and hard physical labor, they also face unique occupational hazards including pesticide exposure, skin disorders, infectious diseases, lung problems, hearing and vision disorders, and strained muscles and bones. Lack of access to quality medical care makes these risks even greater for the three million migrant and seasonal farmworkers who work in the fields every year. 106

FATALITIES

In 2007, for every 100,000 agricultural workers in the U.S. there were 25.7 occupational deaths in agriculture. This compares to an average rate of 3.7 deaths for every 100,000 workers in all other industries during this same year. 107

From 1992 to 2006, 423 agricultural workers were reported to have died from exposure to environmental heat. 109

Along with construction, mining, fishing and hunting, the agriculture industry had the highest worker fatality rate in 2007. The time period from 1992 to 2002 had an annual average of 806 occupational deaths. 108

INJURY AND ILLNESS RATES

Agriculture is consistently ranked as one of the three most dangerous occupations in the United States. 110

In 2006, the agriculture industry the second highest rate of occupational injuries and illness resulting in lost days of work of any industry. Only construction was higher. 111

Every day, about 243 agricultural workers suffer lost-work-time injuries, and about 5 percent of these result in permanent impairment. 112

References

107 NCFI FACT SHEET ON MIGRANT FARMWORKER CONTRIBUTION TO NC ECONOMY; http://www.ncfarmworkers.org/resources/#Facts
PESTICIDE EXPOSURE

- Farmworkers are often exposed to pesticides during their daily work, which include substances that prevent, destroy or repel pests. Because some pests have systems similar to the human system, some pesticides also can harm or kill humans. The term pesticide also encompasses herbicides, fungicides, and various other substances used to control pests.\(^\text{113}\)
- Farmworkers frequently encounter pesticides through direct contact with the chemicals, contact with pesticide residue on treated crops or equipment, and drift of pesticides into untreated areas.\(^\text{114}\) Farmworkers can also transport pesticides from the fields into their homes through residue on their clothing, boots and skin. This puts the farmworker’s entire family at risk, especially because pesticide residue in the home is not degraded by the sun or rain.\(^\text{115}\)
- A 2006 study on farmworkers in California found that acute effects of pesticide exposure include headache, nausea, eye irritation, muscle weakness, anxiety and shortness of breath.\(^\text{116}\)
- Studies indicate that pesticide exposure is associated with chronic health problems such as:
  - Respiratory problems
  - Memory disorders
  - Dermatologic conditions
  - Cancer
  - Depression
  - Neurologic deficits
  - Miscarriages and infertility
  - Birth defects\(^\text{117, 114}\)

- In severe cases, pesticide exposure can lead to convulsions, coma and death.\(^\text{118}\)
- Law violations by employers are estimated to contribute to 41% of pesticide poisonings in California, including failure to provide useable safety equipment, absence of washing/decontamination facilities, and lack of fieldworkers’ access to pesticide training or information.\(^\text{119}\)
- A study in California tracked farmworkers who handle organophosphate (OP) or carbamate (CB) pesticides. Under that program, workers who regularly handle those pesticides have blood tests before the spray season begins to determine their normal levels (“baselines”) of an important chemical in their nervous systems called cholinesterase. During the spray season, they have follow-up tests to track whether exposures are depressing their cholinesterase levels, and thereby putting them at risk of injury. Of the 611 workers tested, 59 (9.65%) had depressions at a dangerously high level of more than 20%.\(^\text{120}\)
- Another study in 2003 found pesticides in the urine of 92% of the 213 farmworkers tested. This same study examined 571 farmworkers and found that:
  - 96% of 571 farmworkers studied reported exposures to pesticides at work.
  - 63.4% said pesticides touched their clothes: 33% daily, 30.4% once in a while
  - 53.3% said pesticides touched their skin: 28.6% daily, 24.7% once in a while
  - 51.6% said they breathed in pesticide dust: 19.7% daily, 31.9% once in a while
  - 17.3% said they were dusted or sprayed with pesticides: 2.5% daily, 14.8% once in a while\(^\text{121}\)
- A 2002 study examined take-home organophosphorus pesticide exposure among agricultural workers and found pesticides in dust samples from 85% of farmworkers’ homes and 87% of farmworkers had pesticides in dust samples in their vehicles. In addition, 88% of farmworker children had organophosphate metabolites in their urine.\(^\text{122}\)
- Pesticide risks: Farmworkers suffer from the highest rate of toxic chemical injuries and skin disorders of any workers in the country, as well as significant rates of eye injuries.\(^\text{110}\)


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- Mass poisonings of hired farmworkers has been reported. One of the most serious incidents over the past decade was described by the Centers for Disease Control and Prevention. In that accident, 34 workers had a lengthy exposure in a field that had recently been treated with carbofuran, a cholinesterase-inhibiting carbamate pesticide. The field had not been posted with warning signs; posting is required by California law.

- A review article examining pesticide illnesses and injuries among California’s hired farm workers found that skin disorders dominate the illnesses, although eye and systemic effects are also common.

- HEAT AND SUN EXPOSURE
  - Heat and Sun Exposure Farmworkers work under the sun’s harsh and hot rays for 10-to-12 hours a day, often with little access to shade or water. Heat stress occurs when hot weather and muscle activity cause body heat to rise. This condition can lead to dehydration, electrolyte imbalance, neurological impairment, multi-organ failure, and death.
  - Crop workers have an average annual heat-related death rate of .39 per 100,000 workers, compared with .02 for all U.S. civilian workers.
  - In the 2005 National Agricultural Workers Survey (NAWS), 20 percent of the farmworkers reported having no access to drinking water and cups.
  - Working under the sun also exposes farmworkers to long hours of ultraviolet radiation, which puts them at a higher risk for developing skin cancer.
  - Though sunscreen use can help lower this risk, a 2005 study of 326 male farmworkers found that only 2.8 percent reported to have ever used sunscreen and only 19.3 percent knew what sunscreen was. More than 90 percent did not wear sunglasses or any sun-protective eye equipment. 75 percent reported not wearing a wide-brimmed hat, which leaves the ears, neck and face exposed to ultraviolet rays.
  - Another danger for farmworkers is that pesticides are absorbed through hot, sweaty skin more quickly than through cool skin.

- HAZARDOUS TOOLS AND MACHINERY
  - From 1992-2001, the leading cause of fatal occupational injuries in the agriculture industry was farm tractors, which accounted for 2,165 farmworker deaths.
  - Deaths from other machines and tools include:
    - Trucks, at 795 deaths
    - Harvesting machines, at 253 deaths
    - Mowing machines, at 228 deaths
    - General agriculture machines, at 168 deaths
  - As for non-fatal injuries in agriculture, machinery was the leading source from 1993 to 1995, with 99,402 reported injuries.

- INFECTIOUS DISEASES
  - Infectious diseases among the farmworker population are caused by poor sanitation and crowded conditions at work and housing sites, including inadequate washing and drinking water.
  - In the 2005 National Agricultural Workers Survey (NAWS), 5% of the farmworkers reported having no access to water for washing, while 7% had no access to toilets in the fields, both of which the U.S. Department of Agriculture calls significant percentages.
  - A 2006 study of farmworkers in North Carolina found that 46 percent of farmworkers lived in very crowded and unsanitary conditions. Conditions such as these increase farmworkers’ exposure to environmental toxins and communicable diseases.

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123 Centers for Disease Control and Prevention; 1999. Farm worker illness following exposure to carbofuran and other pesticides—Fresno County California, 1998; MMWR 48(6):113–16
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- Farmworkers are six times more likely to develop tuberculosis when compared with other workers, and rates of positive TB results between 17% and 50% have been reported throughout the United States.  
- The prevalence of parasitic infestation is an indicator of the health, social, and economic conditions within a community. One study of 422 migrant farmworkers and their families found a prevalence of parasitic infestation of 11.4%.  
- Migrant workers are at increased risk for urinary tract infections, partly as a result of a lack of toilets at the workplace and stringent working conditions that promote chronic urine retention. Urinary retention in turn encourages bacterial growth and stretches and weakens the bladder wall; this in turn promotes chronic infections or colonization.  

- MUSCULOSKELETAL INJURIES

- Because farm labor consists of constant bending, twisting, carrying heavy items, and repetitive motions during long work hours, farmworkers often experience musculoskeletal injuries. Furthermore, workers are often paid piece-rate, which provides an incentive to work at high speed and to skip recommended breaks.  
- Farmworkers most often report pain in the shoulders, arms, and hands. The most common injuries that cause farmworkers to miss work are: sprains and strains, accounting for 30 percent of missed work, and back pain at 25 percent.  
- From 1999 to 2004, almost 20 percent of farmworkers reported musculoskeletal injuries.

- RESPIRATORY ILLNESSES

- Because agricultural work takes place in rural areas, farmworkers are exposed to organic and mineral dusts, animal and plant dusts, toxic gases, molds and other respiratory irritants.  
- All of these have been associated with respiratory illnesses, such as asthma and chronic bronchitis.  
- Farmer’s Lung, an allergy-related disease, is caused by breathing in dust from moldy hay, straw, corn, silage, grain or even tobacco. The disease can be a sudden attack or a slow, progressive disease that can cause permanent lung damage, physical disability and even death.  
- Farmworkers have a significantly higher death rate for a number of respiratory conditions, including hypersensitivity pneumonitis (proportionate mortality more than 10 times higher than expected), asthma, bronchitis, histoplasmosis, tuberculosis, pneumonia, and influenza.  
- Farmworkers who work in the following areas are most at risk for respiratory illnesses:
  - Dusty fields and buildings
  - Handling of moldy hay, grain, corn, etc...
  - Working in silos or with feed
  - Working around bird droppings or dust from animal hair, fur, or feathers
  - Lung disease in farm workers has now been linked to the industrialization of farming, animal raising, and forestry. Exposure to hazardous agents potentially harmful to the respiratory tract is virtually universal: organic dust, allergens, chemicals, particulate matter, and toxic gases

- SKIN DISORDERS

- The agriculture industry has the highest incidence of skin diseases when compared with all other industrial sectors.  
- In 2003, the U.S. annual incidence of skin diseases was: 30.0 workers per 10,000 workers in the crop production sector 18.5 workers per 10,000 workers in the agriculture industry 4.9 workers per 10,000 workers in all private industry sectors combined.
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- Skin disorder risk factors that are characteristic of farm work include wet working conditions, hot and humid climates, and exposure to hazardous chemicals and plants.  
- A 2006 study of farmworkers in North Carolina found that 77.7 percent of male farmworkers were diagnosed with a skin disease, with nail fungus being the most commonly diagnosed disease, followed by foot fungus and acne. This study also found that the odds of farmworkers having a skin disease were 80% higher for those with less than six years of education.  
- A 2003 study revealed that 37 percent of Latino migrant and seasonal farmworkers reported having a skin disease sign or symptom in the past two months. This is much higher than the 10.4 percent of the general population who reported having a skin disorder in the past year.

- EYE INJURIES
  - Farmworkers encounter multiple eye irritants in their work environments, including dust, sand, tools, branches, allergenic agents, pesticides, wind, sun, water, and insects.  
  - These foreign objects can cause infections, allergic reactions, eye irritations, and corneal and other eye trauma. Chronic irritation and sun can cause cataracts, a clouding of the eye lens, and pterygium, a growth that obstructs the cornea.  
  - Agricultural workers experience eye injuries and illness at a rate of 8.7 per 10,000 workers. This is more than two times higher than the rate of 3.8 per 10,000 for general workers in the U.S.

- OTHER CONCERNS
  - The health costs for foreign-born laborers working under such conditions [described above] include fatal and nonfatal injuries, chronic illness or disease, and negative impacts on mental health. In addition, the migrant’s temporary social and physical environments can negatively affect his or her health and well-being.  
  - Migration itself is highly stressful, as the facts recounted here suggest. In addition, migrant workers are often separated from their families, traveling on their own with no support.  
  - Health status is also affected by exposure to unsanitary housing and to onerous working conditions, i.e. long days with sun and heat exposure, no access to sanitary facilities, high work content involving bending and stooping or work at full arm extension, etc.  
  - In one study Mexican farm workers who had returned to their home villages after ending their work experience in U.S. agriculture report a wide range of symptoms that they attribute to their workplace exposures such as musculoskeletal pain, dermatitis, and respiratory illness.

What About Occupational Safety and Health for Child Farmworkers?

- HIGH FATALITY RATES AMONG CHILD FARMWORKERS
  - While children make up only a tiny fraction of the agricultural work force, they account for 20 percent of all deaths on the job in agriculture.  
  - Between 1995 and 2002, 907 youth died on farms, or 43 deaths for every 100,000 children.  
  - The Centers for Disease Control and Prevention label agriculture the most dangerous industry for young workers in the United States, accounting for 42 percent of all work-related fatalities of young workers between 1992 and 2000. Fifty percent of these victims were younger than 15 years old.

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150 Bureau of Labor Statistics, Incidence rates for nonfatal occupational injuries and illnesses involving days away from work per 10,000 fulltime workers by industry and selected parts of the body [Table R6], http://www.bls.gov/iif/oshwc/osh/case/cstb1662.pdf.  
SPECIFIC OCCUPATIONAL HEALTH AND SAFETY RISKS AND CONSEQUENCES AMONG CHILD FARMWORKERS

- **HEAT AND SUN**
  - Children often work in fields where the temperature is well above 100 degrees Fahrenheit.  
  - The Environmental Protection Agency has confirmed that children are more susceptible to heat stress than adults.  
  - 80 percent of a person’s lifetime sun exposure occurs before the age of 18 and one bad sunburn during childhood could double the risk of developing skin cancer in the future.  
  - Excessive heat exposure can lead to death.

- **MUSCULOSKELETAL INJURIES**
  - The risk of injury for child agricultural workers is four times higher than children in other workplaces.  
  - Farm work is characterized by constant bending, twisting, carrying heavy items, and repetitive motions during long work hours, all of which contribute to musculoskeletal injuries.  
  - Because children are still developing physically, this exertion places an even greater stress on their bodies and can result in long-term consequences. Adolescents also undergo growth spurts, which may decrease flexibility and increase their susceptibility to a variety of musculoskeletal injuries, such as bursitis, tendonitis, sprains, and carpal tunnel syndrome.

- **PESTICIDES**
  - The Human Rights Watch found children who reported working in freshly sprayed fields, and even working while the fields were being sprayed. Children interviewed reported symptoms of exposure including headaches, fever, dizziness, nausea, rashes and diarrhea. In severe cases, pesticide exposure can lead to convulsions, coma and death. Long term effects also include cancer, brain damage, sterility or decreased fertility, and birth defects.  
  - The health threat to children from pesticides health threat is greater than to adults because of their small body mass and state of rapid physical and cognitive development. Children can have less-developed metabolic systems than adults and break down pesticides at slower rates. Also, they can engage in hand-to-mouth behaviors that increase their risk of ingesting pesticides.  
  - Not one of the children interviewed by Human Rights Watch had received training about the dangers of pesticides, safety measures, or what to do in case of exposure. Some did not even know what pesticides were.

- **HAZARDOUS TOOLS AND MACHINERY**
  - Farmworker labor routinely requires the use of knives, hoes, ladders and other tools, as well as work on or around heavy machinery. 27,600 injuries, or 3.1 injuries every hour, occurred to youth who lived on, worked on, or visited U.S. farms in 2004. The most common types of injuries were broken bones, cuts, sprains, and the most commonly injured body parts were arms, hands, feet and ankles.  
  - In 1998, children under the age of 16 suffered 3,069 non-fatal injuries from tractors, 3,035 machinery-related injuries, and 5,444 vehicle-related injuries on farms. More than 70 percent of the tractor and vehicle-related injuries occurred while children were operating the machines, and virtually all of the machinery-related injuries happened while children were operating the equipment. Other injuries include falls off of ladders or other

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- Elevated surfaces; being entangled, crushed or dismembered by machinery; and cuts and sprains from using farm tools designed for adult hands and strength.  
  - The majority of the 907 child deaths on U.S. farms from 1995 to 2002 were due to machinery (23%).  
  - Child farmworkers’ relative inexperience increases their chances of accidents and injury, as well as the fatigue that comes from long hours of hard work in harsh conditions.  

- Other occupational health risks among child farmworkers
  - A study conducted by Human Rights Watch found that many young farmworkers are forced to work without access to toilet facilities, hand washing facilities, and adequate drinking water, the three most basic sanitation requirements.  
  - The lack of hand washing facilities contributes to pesticide poisoning and bacterial infections, while the lack of adequate drinking water can lead to dehydration and heat illness.  

- Child farmworkers: education deprivation
  - Child farmworkers may attend three to five different schools per year as they migrate from farm to farm. This disrupts school work and social integration.  
  - Constant mobility makes it hard for farmworker children to complete their education. On average, the highest grade completed by farmworkers is seventh grade with only 13% of farmworkers completing 12 years of schooling.  
  - According to a five year examination of the National Agricultural Workers Survey results, more than a third of farmworkers ages 14 to 17 dropped out of school. While 17 percent of these young farmworkers went to school at a grade level lower than their age peers. Likewise, the children of farmworkers were educationally disadvantaged. One quarter of school-aged children of farmworkers were behind in grade or had dropped out of school.  

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What About Farmworker Personal and Family Health Status and Healthcare Access

• **BARRIERS TO HEALTHCARE ACCESS**
  o Limited insurance: Only ten percent of farmworkers report having employer-provided health insurance. Error! Bookmark not defined.
  o Because of their extreme mobility efforts to track health status and do necessary follow up (continuity of care) are very difficult, if not impossible. 173
  o Undocumented children who come to the U.S. with their parents are excluded from non-emergency health care (except immunizations), unless they are able to be seen at a migrant health center, or a safety-net clinic. 63
  o A pilot mammography screening program in the state of Washington suggested that the main barrier to the use of this service by hired farm worker women was simply cost. This hypothesis was tested by offering the women a voucher covering the full cost. The important result was that 88% of women with vouchers obtained a screening within 30 days, but only 17% of those without vouchers did so. 174
  o Obstacles to health care: Barriers to receiving health care include lack of transportation, limited hours of clinic service, cost of health care, limited or no interpreter service, and frequent relocation in search of farm work. 175
  o Farmworkers are not protected by sick leave and risk losing their jobs if they miss work. Error! Bookmark not defined.
  o Though immigrant children use less ambulatory and emergency services, when emergency services are used, the amount spent is more than that spent on non-immigrant children. This may indicate that immigrant children are sicker when accessing emergency care, since they were denied cheaper, upstream preventive health measures that could have been provided in the outpatient setting. 177
  o Information about health and health care is transmitted more commonly by word-of-mouth than through the media. 178
  o What happens when there are so many barriers to health care? Providers find that individuals present with advanced health care problems, the ultimate cost of treatment is higher, the outcomes of treatment are poorer; and morbidity and mortality rates are higher. 4 Clinicians attempting to serve this population experience a parallel set of stresses, finding themselves in the midst of tension between overwhelming disparities and what they know is just 4. They are called upon to go the extra mile to develop understanding, trust and resources for patients who come to them with complex needs. 4

• **AVAILABILITY OF CARE / PERCEIVED NEED**
  o In addition, access to quality care for the Mobile Poor remains quite problematic and is hampered by language, culture, and even dialect barriers, lack of health insurance, fear of discovery and reprisal, fear of lost employment, etc. 4 It is estimated that less than 20% of farmworkers have adequate access to health care 4.
  o The rest are at the mercy of a hodgepodge of care delivery points or have no access at all to care or other needed services such as transportation, interpretation, financial assistance, preventive services, etc. 4
  o Medical needs include detection, treatment, and control of infectious diseases such as HIV and tuberculosis; maternal and child health care (including pregnancy care and immunizations); recognition, treatment, and prevention of pesticide poisoning; and prevention and management of chronic health conditions, such as heart disease, diabetes, and cancer. 179
  o Most farm workers appear to access health care services only when absolutely necessary. The CAWHS found that nearly one third (31%) of male workers interviewed had never visited a medical clinic or doctor. And only half (48%) had to medical clinic or doctor within the previous two years. 291
  o Though Migrant Health Clinics provide an important service, they cover only 12-15% of this population. 179

179 Hansen, E, and Donohoe,M., Health Issues of Migrant and Seasonal Farmworkers, J, Healthcare Poor Underserved, 2003,14:153-163
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- [Another] study found that the Index of Medically Underserved (IMU), a federally defined index used to determine possible eligibility for health service funds, averaged 61.1 in the hired farmworker communities versus 83.4 in all urban areas of the state. An IMU figure below 62 is the trigger for eligibility for possible official designation as "medically underserved." 184 This makes farmworkers officially medically underserved.
- The California Agricultural Worker Health Survey (CAWHS) found that one fifth (18%) of those who sought medical care went to Mexico to obtain those services. 185
- Migrant farmworkers have worse health outcomes than other workers in the United States, and often lack access to needed health care. 186
- Several papers describe model programs to bring services directly to labor camps and other isolated, rural communities lacking services. One report identified ten types of unmet needs and proposed a mobile program to reach workers 187. Another describes the success of using a mobile clinic, staffed with family nurse practitioners, registered nurses, and other health care workers. 188 Another innovation is the development of bi-national (Mexico-United States) patient tracking. Since so many migrant workers seek medical care in Mexico, even while working in the United States, and many others return to their home villages each year, bi-national tracking has become essential. 189
- Twenty-one states have started using state only funds to cover pregnant women and immigrant children [largely as a preventionary cost-saving measure]. 190

**FOLK MEDICINE** 184

- Folk medicine is the mixture of traditional healing practices and beliefs that involve herbal medicine, spirituality and manual therapies or exercises in order to diagnose, treat or prevent an ailment or illness. 185
- **HISTORY**
  - The Mayas of Central America and Southern and Central Mexico (2000 BCE to 250 AD) had a very holistic view of illness and healing. Health was viewed as a balance that occurred between your physical condition, nature, the cosmos, etc. and different components were used to improve health such as medicinal plants, religions ceremonies and spiritual guides. 186
  - The Aztecs of Central Mexico (1300 AD to 1519 AD and the post-conquest period) also had extensive practices with contemporary medicine. For example, they treated headaches by inhaling tobacco and other herbs and scabies were treated by washing the skin and applying avocado. 187
  - "Mestizos" (a term used in Mexico) refers to the subculture, practices and beliefs that have resulted from the historical mixture of the indigenous and Spanish cultures, since 1519. 188
  - In other parts of Latin America, the term is "Ladino" and studies frequently suggest that this word is used among the former and current Mayan regions of the Americas. 189,190

- **TYPES OF FOLK MEDICINE PRACTICES AND PRACTITIONERS**
  - Folk medicine is practiced by a majority the Mexican population while in Mexico, especially among the poor and uninsured. 191 It is therefore no surprise that these beliefs survive and resurface once people and populations cross international borders.
  - There are many types of alternative or folk medicine practices and practitioners among the Hispanic community*

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187 Dr. Hugo Icu Peren, Revival of Maya Medicine and Impact for its Social and Political Recognition (in Guatemala). Guatemalan Association of Community Health Services, 2007
189 Nguyen, Paula. *Aztec Medicine*. Pacific Lutheran University, Available online: [http://www.plu.edu/~nguyenpb/home.html](http://www.plu.edu/~nguyenpb/home.html)
• A “Sobador” is a manual therapist who offers chiropractic or physical therapies. Sobadores are popular in the South Texas Hispanic community.
  o because there is a common cultural understanding regarding spirituality and healing that harbors trust between the patient and the sobador, and
  o second, because the heavily agricultural area often results in workers suffering from occupational or workplace injuries.

• Herbalism is also a common practice where components of a plant or plants (berries, root, leaves, etc.) are used for their medicinal properties. A person who practices herbalism is called a yerbero. Some examples of medicinal herbs include chamomile (manzanilla) which is taken as a tea for its calming properties, aloe vera (zabila) which is used topically on the skin to cure bites, rashes, etc. and eucalyptus (eucalipto) is used as a tea to alleviate and help symptoms associated with the common cold.

• Curanderismo is seen as a combination of the above mentioned practices with a few other components. The practice also assumes a social network of a relative or relatives who can diagnose the illness and act as curandero, a relationship between illness, healing and religion, and an underlying belief and trust among the Hispanic community about symptoms, healing practices and the source of illness. A few common ailments that a curandero can diagnose and treat are:
  o mal de ojo (evil eye): Mal de ojo is defined as an illness that is inflicted due to envy. When the glances of admiration of a stronger person are inflicted on another for too long, usually on a child, it is said that mal de ojo occurs. The associated symptoms include high fever, fretfulness, headaches and crying. For treatment, an egg must be rubbed among the child’s body, while prayer is conducted.
  o susto (fright sickness): Susto results from a startling or frightful occurrence or scare which has caused the soul to temporarily leave the body. The symptoms associated with it include loss of appetite and weight, lack of motivation and listlessness. The treatment of susto involves sweeping the body with herbs three times while prayer is conducted.
  o mollera caída (fallen fontanelle): The condition in which the soft spot on top of a baby’s head is marked with an indentation. It is believed to be caused by bouncing a baby too roughly or removing a nipple or bottle from the baby’s mouth too suddenly. It is also marked by the baby having a bulging palate, fever, vomiting and crying. The treatment involves applying salve to the baby’s head and pressing on the baby’s palate. It is important to note here how a curandero’s diagnosis may be very much in line with those of contemporary medicine, despite how the treatment process may differ.

THE HEALTHCARE PERSPECTIVE

▪ The differences in medical and cultural perspectives that must be overcome by health center staff.
▪ Use of alternative or folk medicine is difficult to determine because patients are very often afraid that healthcare professionals will judge or ridicule them for their belief systems.
▪ Many patients claim that they do not inform their doctors of alternative medicine or alternative treatments simply because their doctors do not ask about them.
▪ Patients also report that they would appreciate
  • their doctors asking what home remedies they are using as treatment,
  • their doctors remaining open-minded, and
  • their doctors having an understanding of folk medicine.

196 University of Maryland Medical Center, Herbal Medicine, 2009, Available online: http://www.umm.edu/altmed/articles/herbal-medicine-000351.htm
197 Holland, Koren, Medicinal Plants of the Migrant Workers, Gettysburg College, 1996, Available online: http://www.ncfh.org/?plugin=ecomm&content=item&sku=4145
Also, alternative or traditional medicine within the Latino culture is deeply rooted in spirituality and religion.\textsuperscript{201} In the United States, discussing the basis of illness from a spiritual perspective with a doctor or clinician may not always be a welcome gesture.

A study published in 2010 which interviewed 96 Latino immigrants regarding traditional medicine and religion concluded that 75% thought prayer was an important part of healing. 90% said they frequently pray for their health or the health of their families.\textsuperscript{201}

- **TUBERCULOSIS**\textsuperscript{204}
  - Tuberculosis (TB) is an infectious disease that continues to be a significant global health problem, especially among migrant and seasonal farmworkers, who are at greater risk for becoming infected with TB than the general population.\textsuperscript{203} Efforts to control TB have had some success, leading to a world-wide decline of new TB cases; however this decline has not been seen in the migrant farmworker population.\textsuperscript{204}
  - In 1992 tuberculosis was reported among hired farm workers at a rate six times higher than in the general working-age population, and federal health authorities issued a series of recommended actions by public health officials.\textsuperscript{205}
  - High levels of PPD positivity in farmworkers in the US have been found in a number of studies:
    - between 17 percent and 50 percent in one study of farmworkers throughout the United States.\textsuperscript{203}
    - 44% in a sample in which 5% were also HIV-positive,\textsuperscript{206} suggesting that reduced immunity is an important factor in the increased prevalence of tuberculosis; and
    - 30% in a sample of migrant farm workers who were recruited to participate in a health education program.\textsuperscript{207}
  - Farmworkers have a significantly higher risk of dying from TB. A 2001 study of more than 26,000 farmworkers found significant excesses of tuberculosis-caused deaths,\textsuperscript{208} and a 2002 government report showed agricultural workers and farmworkers to have the second and third highest rates of respiratory TB deaths out of all industries and occupations.\textsuperscript{209}
  - The crowded living and working conditions, as well as the lifestyle common for migrant farmworkers, lead them to have increased chances of developing tuberculosis during their lifetime.\textsuperscript{204}
  - It is well recognized that rates of tuberculosis increase in stressed populations, such as in times of war.\textsuperscript{210}
  - People with compromised immune systems are at a high risk for TB infection. This includes people with HIV/AIDS, those who are malnourished and injection drug-users.\textsuperscript{211} Farmworkers have a high incidence of all of these problems.
  - The TB burden among the foreign-born is nine times higher than the rate of persons born in the United States.\textsuperscript{212}
  - Many farmworkers enter this country from areas of the world where tuberculosis rates are much higher than the U.S., such as …Latin America [especially Mexico].…\textsuperscript{213}
  - Ethnicity is also an indicator of higher rates of tuberculosis. In 2006, 83 percent of all TB cases in the United States were among racial and ethnic minorities, with Hispanics having the largest percentage of total cases for the third consecutive year at 30 percent.\textsuperscript{214}

\textsuperscript{204} NCFH Fact Sheet on TB; 2009; http://www.ncfh.org/?pid=5
\textsuperscript{206} Villarino, ME, Geiter, LJ, Schulte, JM, Castro, KG. 1994. Purified protein derivative tuberculin and delayed-type hypersensitivity skin testing in migrant farm workers at risk for tuberculosis and HIV co-infection.
\textsuperscript{208} Colt, Joanne S. et al., (2001), Proportionate Mortality Among US Migrant and Seasonal Farmworkers in Twenty-Four States, American Journal of Industrial Medicine, 40 p.604-611
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- Treatment of Tuberculosis in migrant farmworkers presents special problems because of the need for long-term treatment or preventive efforts, contact examinations, population mobility, fear of deportation, cost of treatment, and other barriers to health care. 215
- A mobile lifestyle characterized by constant residential change makes knowledge of health services difficult. This mobility also makes follow-up care, which is very necessary in treating TB, more difficult to provide. 216 It can take six months to one year to kill all TB bacteria. When treatment is interrupted, patients are more likely to develop MDR-TB. 217
- Language barriers and limitation in knowledge about tuberculosis among farmworkers may contribute to misunderstandings about the importance of screenings and if identified, completing the treatment regimen. 218
- A 1996 report by the CDC stated that single drug resistant tuberculosis rates are 1.7 – 5 times higher among foreign-born Hispanic patients compared to Hispanics born in the United States. Similarly, prevalence of multi-drug resistant strains of tuberculosis was 6.8 times higher among foreign-born Hispanics. 219

**ORAL HEALTH** 220

- According to an analysis of migrant health center encounter data in 2007, dental care ranked as one of the top 3 health problems migrant farmworkers were treated for. 221 However, statistics show that a large percentage of migrant farmworkers and their children do not seek regular dental care and suffer from complications linked to dental carries or gum disease. In addition, research has consistently shown that farmworkers of all ages have a level of oral health far worse than what is found in the general population. 220
- A 2007 study found that 80 percent of farmworkers had not received dental services within the past year. Of those who did, almost all were serviced in Mexico. 222
- The most common barriers to receiving proper oral health care are cost, time, urgency (aka lack of prevention), and language. 223, 224, 225, 226
- One study found that oral health was one of the major health problems facing the migrant and seasonal farmworker population, as well as one of the most unmet needs in farmworker health services. The same study found that 52 percent of farmworkers reported dental carries and 33 percent reported missing teeth. Oral sensitivity and gum problems were other common problems reported by 40 percent of those interviewed and 30 percent reported fractured or broken teeth. 227
- Migrant farmworker children are 48 percent more likely to have decayed teeth surfaces and 47 percent less likely to have filled surfaces than U.S. school children. 228
- In a study of 125 farmworker children under the age of 4 in Yakima, Washington, published in 1992, 29.6 % of the children had Baby Bottle Tooth Decay. 229

**MATERNAL HEALTH** 230

Due to mobility, the pregnant farmworker woman and infant child face great obstacles in obtaining care. Likewise, once born, the health of farmworker children is one of the poorest of any group in the country. The migratory lifestyle, language barriers, poor living conditions, and a lack of

215 Centers for Disease Control, Tuberculosis and Migrant Farm Workers, Austin: National Migrant Referral Project, June 1985
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sufficient financial resources or health insurance make access to healthcare and the continuity of care incredibly difficult.230

- **SOME RELEVANT DATA:**
  - In 2005, Latinas had the highest birth and fertility rates in the U.S.231
  - 23.1 live births per 1,000 Latina women, compared with 12.4 for non-Latino women.231
  - 99.4 births per 1,000 Latina women aged 15 to 44 years, compared to 60.4 for non-Latino women.231
  - Women of Mexican origin had the highest fertility rate of all populations, with 107.7 births per 1,000 women aged 15 to 44 years.231
  - In 2005, for mothers of Mexican origin, 5.53 out of every 1,000 infants less than one-year-old died, an increase from the year 2000 (5.43).232
  - The CDC found the prevalence of anemia in [all] pregnant women to be 10.2 percent, with Hispanic women having the second highest rate.233
  - With an uninsured rate of 39 percent, Latina women ages 15 to 44 were three times more likely to be uninsured than non-Latina white women at 14 percent.234
  - Farmworker parents have an average of two children less than 18-years-old. Of these farmworker parents, 66 percent are accompanied by their families, and women were two times more likely to be accompanied.235
  - 97 percent of farmworker mothers were accompanied by their children, compared to 55 percent of farmworker fathers.235
  - Farmworker parents who had authorization to work inside the U.S. were twice as likely to be accompanied by family as were parents who lacked authorization.235

- **PRENATAL CARE AND PEDIATRIC CARE AMONG FARMWORKERS**
  - In a 2005 study, only 42 percent of migrant and seasonal farmworker women reported accessing prenatal care services early on in their pregnancy (within the first 3 months). Compare this with the 76 percent of women who access early prenatal care nationally.236
  - Data from the Pregnancy Nutrition Surveillance System found that of 4,840 migrant women monitored, 52 percent (1,835) had less than recommended weight gain throughout their pregnancies. 23.8% percent had undesirable birth outcomes, 6.7 percent had low birth weight, .7 percent had very low birth weight, 9.9 percent had preterm births, while 6.5 percent were small for gestational age.237
  - A study done by Alan Dever found that migrant clinics had twice as many visits with children younger than 15 years of age as ambulatory care settings in general. Overall, 43.9% of the migrant workers surveyed had more than one morbidity. The highest rate of co-morbidity was for those patients younger than 5 years of age and older than 18 years of age. In this same study, 61% of migrant children seen at migrant health clinics had at least one health problem while 43% had two or more problems.238
  - Another study found that 53% of farmworker children had an unmet medical need according to their caretakers. This is twenty-four times higher than that reported for U.S. children overall (2.2%).239
  - A study examining the diet of Mexican-origin migrants found that 61.2% of the diets were deficient in Vitamin A, 30.6% deficient in Vitamin C, 57.1% deficient in calcium, and 42.8% deficient in Riboflavin.240
  - Twenty-one states have started using state only funds to cover pregnant women and immigrant children [largely as a preventative cost-saving measure].239

- **OH&S HAZARDS FOR EXPECTANT FARMWORKER MOTHERS**
  - The occupational hazards of farm work (prolonged standing and bending, overexertion, extremes in temperature and weather, dehydration, chemical exposure, and lack of sanitary washing facilities in the fields)

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230 NCFH Fact Sheet on MATERNAL AND CHILD HEALTH: 2009; http://www.ncfh.org/?pid=5
233 Centers for Disease Control and Prevention, (2007), Preconception and Interconception Health Status of Women Who Recently Gave Birth to a Live-Born Infant, MMWR, 56(SS10),1-35.
can lead to spontaneous abortion, fetal malformation, or growth retardation and abnormal postnatal development.241

- Exposing pregnant farmworkers to pesticides puts unborn children at risk for various severe physical and neurological developmental abnormalities such as facial/cranial malformation and missing limbs.242
- Parents working with pesticides often carry contaminated clothes, shoes and hats which then reaches children via household dust found in cars and common living areas. In a study involving urine samples, almost all children (88%) whose parents worked with pesticides tested positive for pesticide metabolites in their system.243

- Further, problems for expectant farmworker mothers and their children:
  - 85% of farmworker housing units are typically over-crowded244
  - high levels of anxiety, depression and suicidal attempts are commonly present in women245, and
  - overwhelming occurrences of farm injuries in both adults and children have been documented.246

**OTHER PROBLEMS FOR MIGRANT FARMWORKER MOTHERS**

- Another problem is that cultural brokers are needed [but usually unavailable] to assist in overcoming cultural and linguistic barriers.247
- Some Mexican immigrant women of indigenous origin encounter significant barriers to accessing health care while in the United States such as language and culture differences as well as proper health behaviors248.
- As the numbers of indigenous migrants increases, this will present difficult challenges to a health care system that is already struggling to accommodate non-English speakers.
- It is further complicated by the fact that many Mexican indigenous cultures do not have a written language.

**CHILD HEALTH**

- Children of migrant farmworkers have higher rates of pesticide exposure, malnutrition and dental disease than the general population. Children of migrant farmworkers are also less likely to be fully immunized than other children **Error! Bookmark not defined.**

- Programs to provide health insurance to all uninsured children have provided relatively little benefit to the families of hired farm workers250.
- Many children are employed along with their parents251. Thus, these children face both occupational health risks as well as personal health risks.
- A comprehensive health screening among nearly all (92%) of the children of the city of McFarland, a predominately farmworker community in California’s San Joaquin Valley, found that over two thirds of the children (70%) required a medical referral252. The need for these referrals was subsequently positively associated with poverty status, with lack of health insurance, and with lack of a regular physician253.
- Studies of the health status of the children of hired farmworkers include several negative findings:
  - late childhood immunization in South Carolina,254
  - a substantial fraction in Florida who were positive for anti-Hepatitis A virus,255
  - a large segment of children with psychiatric disorders,256,257

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249 National Center for Farmworker Health. [http://www.ncfh.org/docs/00-10%20-%20monograph.pdf](http://www.ncfh.org/docs/00-10%20-%20monograph.pdf)
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- significant evidence of child abuse and neglect,
- iron deficiency, and
- large numbers of children with untreated dental caries.
  - In addition, recently, studies have revealed the presence in the homes of hired farm workers and of farmers of detectable levels of the restricted materials chlorpyrifos and parathion in the state of Washington, and of azinphos-methyl in the Oregon. These agents have the potential to lead to adverse health outcomes.

- HIV/AIDS
  - PREVALENCE
    - The overall Hispanic/Latino estimates are the nearest reliable comparison. In 2009, there was among Hispanics: 7,347 new diagnoses of HIV, and 6,719 AIDS diagnoses.
    - Latinos are disproportionately affected by HIV; in 2009, Latinos represented only 16% of the total United States population and 20% of new HIV infections.
  - RISK FACTORS AND BEHAVIORS
    - Migrant lifestyle factors (poverty, low income, sub-standard housing, limited access to healthcare, limited English proficiency, mobile lifestyle, loneliness, and social isolation) contribute to HIV/AIDS exposure.
    - Certain behaviors also put migrant workers at risk for contracting HIV/AIDS: including sex with prostitutes, inconsistent condom use, and alcohol and drug abuse.
    - Migration between Mexico and the United States has recently been highlighted as a source of rising HIV/AIDS rates in Mexico. Mexican officials now estimate that 30 percent of their country's HIV/AIDS cases are caused by migrant workers returning from the United States.
    - Mexican migrant women, as well as migrant's wives who remain in their country of origin, are vulnerable to contracting HIV due to risky behaviors of their male sex partners, which include intravenous drug use, prostitution use without condoms, unprotected sex between men, and needle sharing.
  - BARRIERS
    - In a recent study Health workers concluded that openly discussing sex and sexuality is received with a lot of discomfort among this rural farmworkers. This adds to people deterring from actively seeking contraceptives or practicing safe-sex behavior.
  - UNPROTECTED SEX
    - Unprotected sex with prostitutes common among farmworkers.
    - A study of migrant male farmworkers in San Diego found that 70 percent of sexually active farmworkers reported sex with a sex worker, of which only 23 percent reported using condoms.
    - As for Mexican migrant women, a 2003 study found that of respondents who had two or more sexual partners, only 25 percent reported using a condom during sex.
  - OTHER FACTORS IN HIV TRANSMISSION

265 NCFH FARMWORKER FACT SHEET ON HIV/AIDS www.ncfh.org/docs/fs-HIV_AIDS.pdf, DECEMBER, 2011
266 Rao, Pamela, et. al., (2008), HIV/AIDS and Farmworkers in the US.
270 UNIDOS Network of Capacity Building Assistance Providers, AIDS and Migrants: Solutions and Recommendations, 2004
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- Amateur tattooing common and there is very little knowledge of the transmission of blood-borne illness contracted through needle sharing.\textsuperscript{273}
- Another important element is that there is a cultural perception that encourages self-medication and the lay health injection of vitamins and antibiotics as a treatment for illness.\textsuperscript{274}

**VIOLENCE**
- Domestic Violence and Partner Abuse
  - Barriers of language, culture, and poverty make it difficult for many health care professionals to recognize abuse and provide care for battered farm worker women.\textsuperscript{275}
  - It is increasingly clear that there is a serious problem in the farm worker community that needs additional attention: family violence.\textsuperscript{291}
  - Battered farmworker women through groups such as Lideras Campesinas\textsuperscript{276} have found strength in collective support as they seek to remedy the violence they face in their homes.\textsuperscript{277}
- Child Abuse
  - One report has found evidence of child abuse in farmworker families.\textsuperscript{276}
  - A positive association has also been found between exposure to family and nonfamily violence and various emotional and behavioral problems among farmworker children.\textsuperscript{278}

**MENTAL HEALTH**
- Nationally, 40% of farmworkers are depressed and 30% experience anxiety. Causes of strain on mental health include isolation, limited social support, separation from family members, job and financial stress, poor housing and unhealthy working environments.\textsuperscript{280}

**CHRONIC HEALTH CONDITIONS**
- CAWHS: The California Agricultural Worker Health Survey (CAWHS) was the first statewide, population-based health needs assessment to report on chronic health conditions among hired farm workers.\textsuperscript{291}
- OBESITY AND HIGH CHOLESTEROL: In California, obesity was found, in all age cohorts, to be in higher prevalence among hired farm workers than among Mexican Americans, the general population, or Mexicans residing in their own country. High serum cholesterol was also found, in all age cohorts, in higher prevalence among hired farm workers than among the first two comparison groups, except in recently arrived immigrants […] the “healthy migrant effect”?\textsuperscript{281}
- DIET: The diet of Mexican migrant farm workers seems to deteriorates in the first several years after coming to the United States to work, and is possibly related to the deterioration of chronic health indicators. In a cohort study in California, nutritional content was found to decline markedly among the diet of these immigrants during their first year in the United States.\textsuperscript{282}
- SUBSTANCE ABUSE: The fact that cirrhosis is a leading cause of death among a large sample of hired farm workers indicates that substance abuse, notably alcohol consumption, is also a serious problem in this population\textsuperscript{291}
- RESPIRATORY DISEASE: One study found elevated levels of chronic respiratory symptoms (coughs, wheezing, sputum production) in hired farm workers. Other studies indicate that respiratory disease is associated with farmworker workplace exposures.\textsuperscript{283}

**OTHER CONDITIONS**
- Incidences of diseases of the ear, nose, and throat have been found to be significantly higher when compared to the general population.\textsuperscript{284}
- High incidence of parasitic worms in two studies reported.\textsuperscript{285,286}

\textsuperscript{276} Stanley E., 1993, Female farmworkers raise issues, El Sol del Valle (Fresno Bee), Fresno, CA
\textsuperscript{283} Shenker, MB., 1996, Preventive medicine and health promotion are overdue in the agricultural workplace, J. Public Health Policy, 17(3):275–305
\textsuperscript{284} Communication facts- http://www.asha.org/research/reports/migrant_workers.htm
What Are Their Family Issues?

- In their search for a better life for their families they may move several times and work in many jobs before they are able either to secure a steady job and settle in an accepting community or to save enough to return to their home country to begin a new life.\textsuperscript{54}
- Frequent moves and the need to have them contribute to family income make school attendance difficult.\textsuperscript{287}
- The average migrant child may attend as many as three different schools in one year. For many children it takes roughly three years to advance one grade level.\textsuperscript{288}
- There is only a 50.7\% high school graduation rate among migrant teenagers\textsuperscript{53}.
- A 1994 study showed that 60\% of migrant students in the United States drop out of school (down from 90\% reported in the 1970s)\textsuperscript{289}
- At least one-third of migrant children work on farms to help their families; others may not be hired directly but are in the fields helping their parents\textsuperscript{53}. By the time a migrant child is 12, he/she may work in the fields between 16-18 hours per week (9), leaving little time for school work\textsuperscript{290}.
- However, the California Agricultural Worker Health Survey (CAWHS) data show that in California, more than half (52\%) of the combined worker and accompanying family members are under the age of 25, and more than two thirds (70\%) are younger than 35. Thus, resident hired farm worker families have a significantly larger share of children and of women of childbearing age than are found in the general population. This implies that maternal and child health care is of proportionately greater importance for U.S. hired farm workers.\textsuperscript{291}

SUMMARY
SUMMARY
Much has been written about the existence in the US of an “invisible” population of workers that for some time has been performing the dirty, dangerous, and difficult jobs that no one else wants to do, many of which (such as farm work) are essential for maintaining our lifestyle and for our survival.
To say that we have not done right by them is a gross understatement.
Nowhere is this truer than in the health status and healthcare arena. What we chronicle in this report is the undeniable and truly reprehensible picture of neglect and indifference to the health needs of this population that staggers the imagination and which calls out as loudly as possible for root cause analysis, introspection, and sustainable correction.
This is true if for no other reason than that our dependence on this inexpensive source of manpower is now one of the pillars upon which the growth of our economy depends. If not for them, our economy becomes stagnant.
Let this serve as a wake-up call!!
NEXT STEPS
WHAT NEXT?

Action steps to correct the problems chronicled in this White Paper are required but are beyond the scope of this work. SUOP will be working with others to find and implement as many of the sustainable corrective actions to these problems as possible and we invite you to join us!!
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Warm regards,

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Scott Morris, MD, SUOP
James Tacci, MD, JD, MPH, SUOP
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