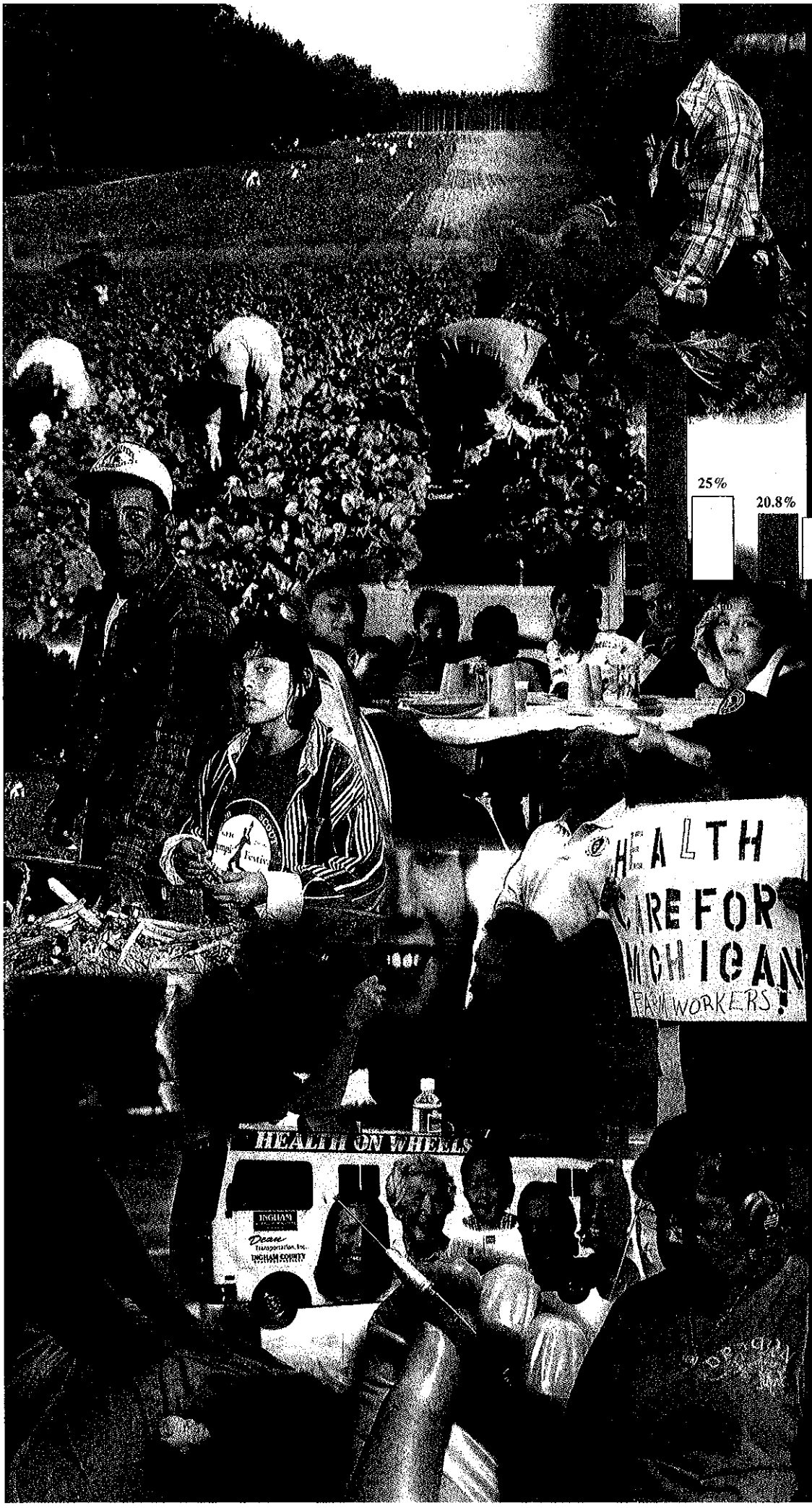
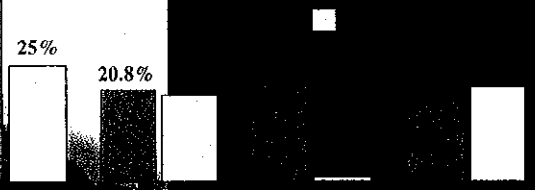


HISPANIC MIGRANT FARM WORKER HEALTH SURVEY IN OTTAWA COUNTY: *HEALTH STATUS, BEHAVIORAL RISK FACTORS, AND ACCESS TO HEALTH CARE*



FINAL REPORT
July, 2002

A report presented to the
Ottawa County Health
Department by the
Julian Samora Research Institute
and the Medical
Anthropology Program
Michigan State University

JULIAN SAMORA RESEARCH INSTITUTE

Hispanic Migrant Farm Worker Health Survey in Ottawa County:
Health Status, Behavioral Risk Factors, and Access to Health Care

Final Report
July, 2002

A report presented to the Ottawa County Health Department by
The Julian Samora Research Institute and The Medical Anthropology Program,
Michigan State University

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Julian Samora Research Institute,
Michigan State University

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SUMMARY TABLE. PREVALENCE OF PERSONAL AND OCCUPATIONAL RISK FACTORS

	Ottawa County 2001	Ottawa County 1999
	%	%
Health Screening & Health Status		
Cholesterol Never Checked	65.20	25.00
Ever Told Cholesterol High	20.80	19.00
Blood Pressure Never Checked	22.90	0.80
Ever Told Blood Pressure High	18.50	21.80
Never Had Eye Exam	50.20	
Never Had TB Tine Test	47.90	
Women's Health Screening		
Ever Had Mammogram		
Women < 35 years	14.00	17.00
Women > 35 years	55.40	84.80
Ever Had Clinical Breast Exam (All Women)	61.30	96.70
Ever Had Pap Test	78.20	96.00
Had Pap Test Within Past Year	69.80	79.10
Obesity		
Overweight	46.20	30.40
Men	31.90	31.80
Women	60.90	28.90
Trying to Lose Weight	25.90	45.70
Behavioral Risk Factors		
Ever Smoked	43.40	40.70
Current Smokers	41.30	16.50
Smokers' Average Number of Cigarettes/Day	4.89	16
Abstinence from Alcohol	48.60	48.80
Men	18.00	41.90
Women	76.40	55.60
Drinkers Who Binge Drink	47.60	16.30
Men	57.30	23.50
Women	9.50	9.10
Dental		
Never Visited Dentist	25.90	N/A
Had Dental Visit in Last 2 Years	N/A	91.60
Access to Healthcare		
Visited Physician in Past Year	45.10	75.70
Men	28.20	68.00
Women	60.90	83.20
No Health Insurance or Medicaid Coverage	85.00	5.60
Discrimination		
Ever Experienced Discrimination	26.00	not asked
Abuse		
Know someone who was abused	22.40	32.40

MIGRANT FARM WORKER HEALTH SURVEY

Brief Abstract

September 2002

In 2001, the Ottawa County Collaborative recruited and trained 74 bilingual volunteers to conduct face-to-face interviews with 213 adults in 69 migrant camps. The county's 2700 Hispanic farm workers come mostly from Mexico and Texas. Sociodemographic data reflect this group's long hours, low pay, limited medical screening and lack of health insurance (85%). Access to health care barriers accounted for the 65% who had never had their blood cholesterol checked and the 72% of men and 39% of women who had not seen a doctor in the past year. Also, 26% had never had a dental exam and only 55% of women age 35 and over had ever had a mammogram. Women were more likely than men to see a doctor, but much less likely to take prescribed medications, as were those 6.6% who hadn't finished secondary school--only 66.7% of whom took the medications prescribed for diabetes. Long-term health was also precarious as 46% were overweight(61% of women and 32% of men), 41% were current smokers, 23% had never had their blood pressure checked and 48% reported never having had a tuberculin tine test. Over 57% of the men surveyed admitted to binge drinking and alcoholism was considered the primary health concern for the whole population.

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STUDY OVERVIEW

Hispanic Migrant Farm Worker Health Survey in Ottawa County: Health Status, Behavioral Risk Factors, and Access to Health Care

Ottawa County Health Department, Julian Samora Research Institute and Medical Anthropology Program, Michigan State University

Compared with the general population of Ottawa County, Hispanic migrant farm workers have:

- Poorer general health status with chronic disease beginning at younger ages.

  For example, the table shows that rates of high cholesterol and high blood pressure are about the same as the general population, even though the migrant farm worker population is considerably younger, on average.

- Less screening for preventive health purposes.

  For example, the tables show low rates of screening for cholesterol, blood pressure, and in women, for breast and cervical cancer.

- Differences in smoking and drinking patterns, with some positive and some negative deviations from the county-wide population.

  For example, the table shows a high percentage of current smokers among migrant farm workers, but on average, they smoke only 5 cigarettes daily (vs. 16/day in the general population).

- Poorer access to health and dental care, less insurance coverage, and lower incomes.

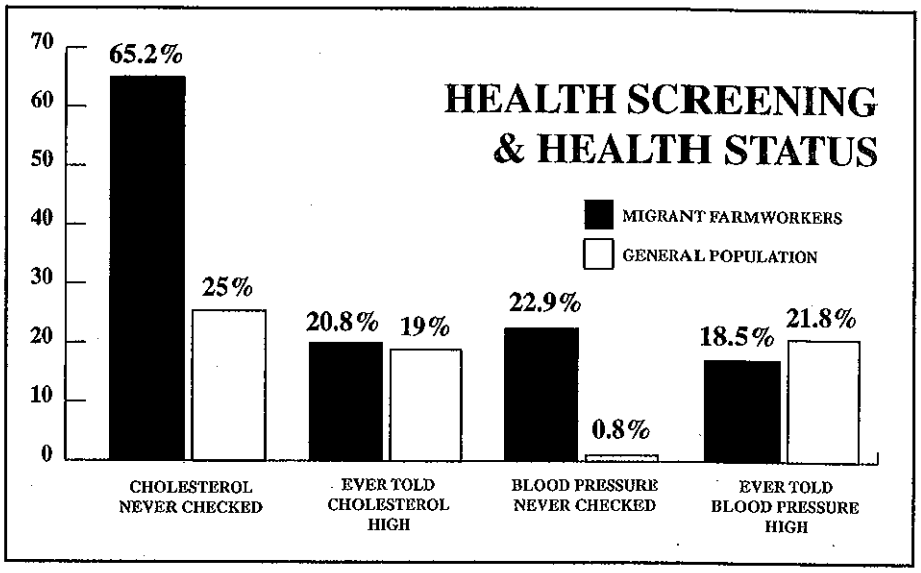
  Fewer than half had visited the doctor in the past year (vs. 75.7% of the general population).

  Among migrants, 85% lack health insurance (or Medicaid coverage; vs. only 5.6% of the general population).

  Household income is considerably lower than the general population; only 17.3% of migrant households have incomes of $20,000 or more (vs. the general population,

The survey was designed by the Ottawa County Collaborative under the leadership of Barbara Coté, Community Health Assessment Coordinator, Ottawa County to provide information for planning by the Ottawa County Health Department, policy makers, and health care delivery organizations. In the fall of 2001, bilingual interviewers administered questions in person at farm labor camps to 213 migrant farm workers aged 18 and older. The findings of this survey were compared with Ottawa County Behavioral Risk Factor Survey (1999) to identify disparities in health status and access to care.

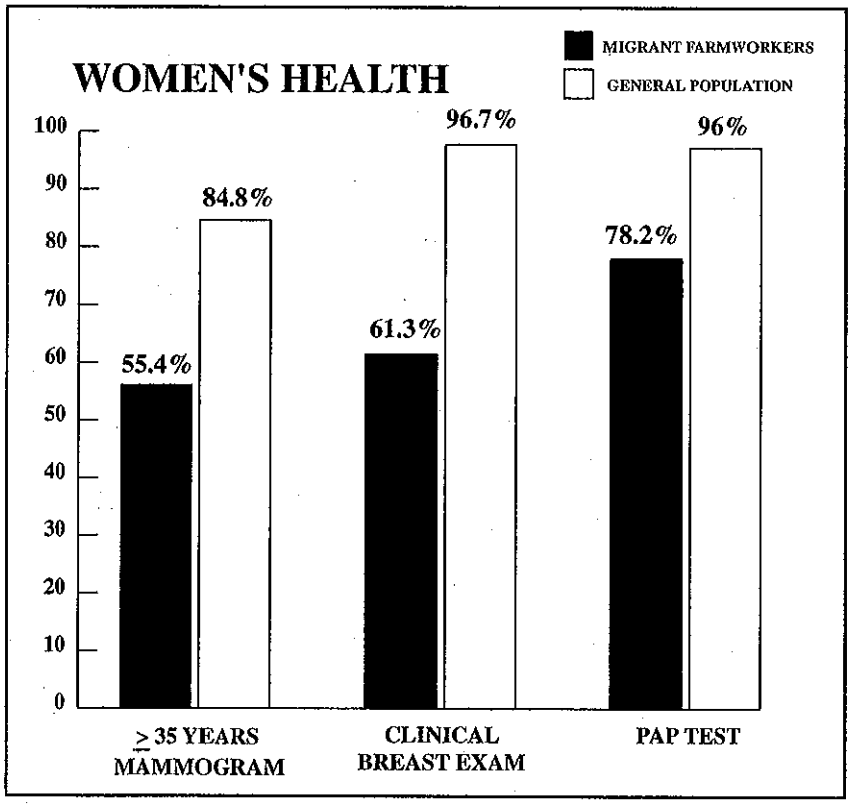
Major Findings:



- Health screening differed among migrant workers compared with the general county population. A majority of the Latino migrant population had never had received a cholesterol test (65.2%), compared to one quarter of the general population (25%).

- More strikingly, nearly one quarter (22.9%) of the Latino migrant farm workers had never had their blood pressure checked, an extreme disparity compared to the general population (0.8%).

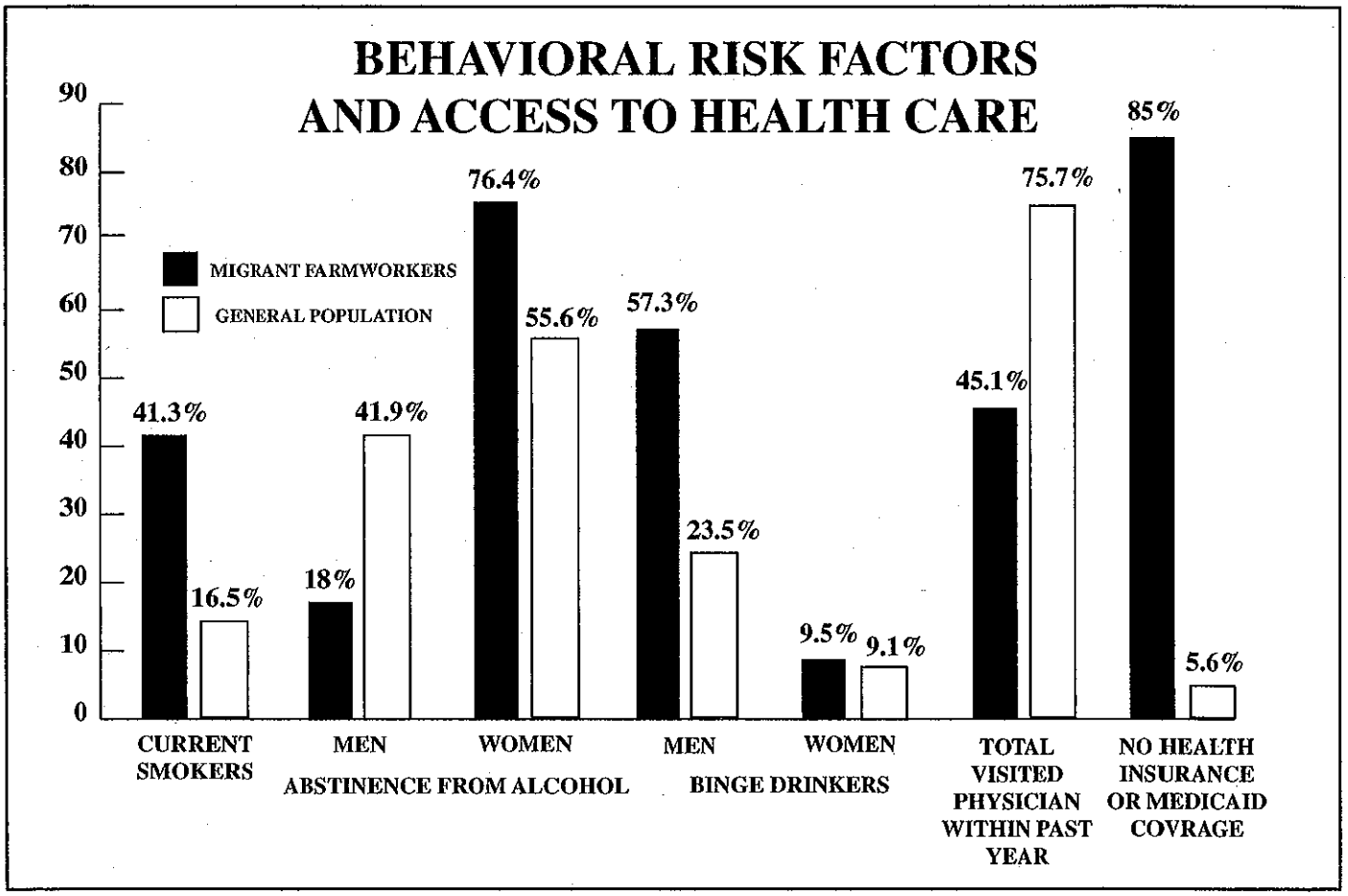
- Regarding women's health, the migrant farm workers had received less care. Migrant women over the age of 35 were less likely to have ever received a mammogram (55.4%) compared with the general population (84.8%). Of women 18 and older, migrant women (61.3%) were also much less likely to have ever received a clinical breast exam (compared with the general population, 96.7%). Women's health also differed significantly in the area of nutrition. While it was found that over half of migrant farm worker women (60.9%) were overweight, versus half this percentage in the general population (28.9%), fewer migrant women (25.9%) were trying to lose weight (compared with the general population, 45.7%).



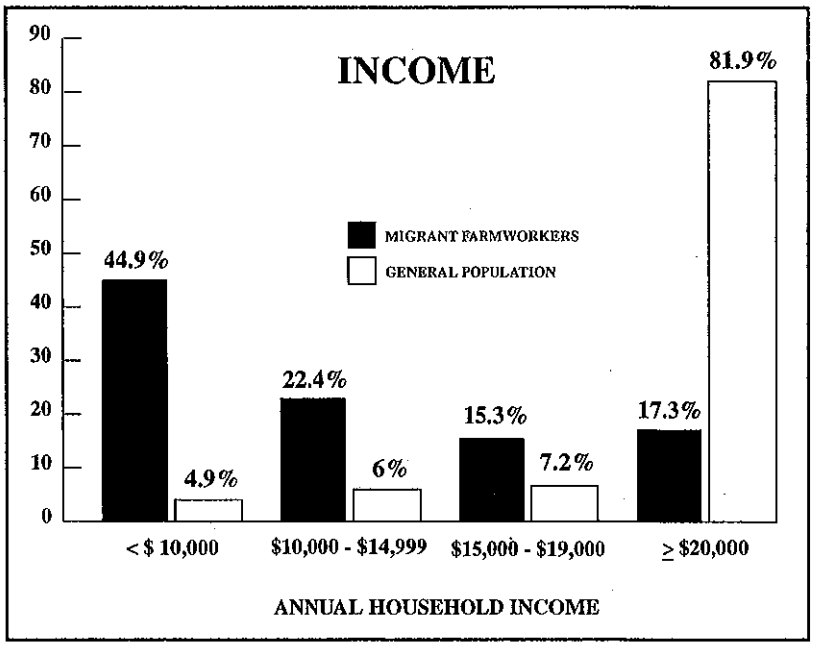
• Health behavior was another category addressed in each survey. One detrimental behavior twice as frequent among migrant workers (41.4%) was smoking (vs. 16.5% among the general public). Of those migrant workers who smoked, though, the daily number of cigarettes (4.89) was much lower than in the general population (16 cigarettes/day among smokers). Drinking, specifically binge drinking among men, was another health behavior where noticeable trends between the survey groups emerged. Male migrant farm workers (57.3%) participated in binge drinking activities at a rate of over twice that of the general population (23.5%). Female migrant workers (76.4%), on the other hand, were much more likely to abstain from alcohol consumption than the general population (55.6%).

- Only half (47.8%) of the migrant farm worker population had visited a dentist in the past two years, while 91.6% of the general population had visited the dentist in the last two years.

- Annual physician visits differed between the two samples, migrant workers (45.1%) having yearly visits much more rarely than the general population (75.6%). The difference in males was especially dramatic, with migrant workers (28.2%) visiting doctors half as frequently as the general male population (68%).



- Annual income per household and coverage by either health insurance or Medicaid also differ between migrants and the general population. Over half of the migrant farm worker population (67.3%) had a household income below $15,000, as opposed to the 4.9% of the general population. Additionally, only 2% of the migrant worker population had household income above $40,000, while over a third of the general population is in this category (39%). The vast majority (85%) of the migrant farm worker population has no health coverage, a major contrast with the general population, who are almost completely covered (94.4%).



The glaring discrepancy between migrant farm workers and the general population stems from the farm workers' poor access to resources. As reported in the comparisons of household income, migrant farm workers do not have the resources to pay for health insurance and they do not receive it as a benefit on the job. The consequence is that they have few visits to doctors and dentists and low coverage by screening tests, including blood pressure checks. Many studies have shown that early screening and treatment save health care dollars; thus, extension to access to migrant farm workers may save the county money. Without some support with regard to medical coverage, problems highlighted in many of the survey categories--general health status, maintenance, and prevention, women's health, and dental health--will continue to place major strain on the health of migrant farm workers. Addressing the problem of unequal access to health care will help to improve the health of minorities in Ottawa County, and extensive research findings on other populations leads us to expect that it will also benefit the health of other population segments in the county.

Acknowledgements

We are grateful to all the members of the Ottawa County Collaborative who devoted extensive time, on a volunteer basis, to this survey. In addition, we thank the Julian Samora Research Institute for a small grant to support undergraduates working on coding, data entry, analysis and writing the final report. We thank Dr. Lou Anna Simon, the Provost at Michigan State University, for the support of Andrew Poole with a Professorial Assistantship during the 2001-2002 academic year. At the Family Independence Agency, we thank Manuel Gonzalez for his encouragement of this project. In addition, we thank the hundreds of migrant farm workers who responded to this survey and also, helped us by interviewing other farm workers.

Purpose of this Report

This report is designed to aid the Ottawa County Health Department and medical care organizations in assessing the match between the services they offer and the needs of their client population. The following pages provide results of a survey of the county's migrant farm worker population, who comprise about half the country's Hispanics. The earlier Behavioral Risk Factor Survey of Ottawa County (1999) overlooked most of the minority population in the county. The largest racial/ethnic minority population, Hispanics, number 19,393, or 8.0% of the county population, including migrant farm workers (Census 2000 and State of Michigan).

The migrant farm worker survey was initiated by the Ottawa County Collaborative, including 19 county organizations, under the leadership of Barbara Coté, Community Health Assessment Coordinator, Ottawa County Health Department (see Appendix A and B; Figures 1-3). These results will provide direction for improving the medical care and health status of Hispanic migrant farm workers, relieving human suffering, creating a healthier and more reliable county work force, and saving funds on the state and federal levels.

Methods

In this project, the Hispanic Migrant Farm Worker Survey includes questions regarding health risk behaviors, preventative behaviors, and access to health and dental care and other issues, including pesticide exposure. The questions came from the Michigan Behavioral Risk Factor Survey, developed by the Centers for Disease Control and Prevention and used in the Ottawa County Behavioral Risk Factor Survey of 1999 and from surveys of low-income Mexican Americans elsewhere in the United States.

For the purpose of this report, "Latino" and "Hispanic" are used interchangeably to describe an ethnic group who are the focus of this investigation. As many have noted, the Hispanic ethnic group is highly heterogeneous in culture and history — actually, it is composed of many ethnic subgroups of different national and cultural origins; however the people under study in by the Ottawa County Collaborative are nearly all either Mexican Americans or immigrants from Mexico.

In this survey, 213 respondents aged 18 and over participated. Bilingual volunteers were recruited by Coté and trained by her with the team from the Julian Samora Research Institute at Michigan State University. After pilot testing the questionnaire, the interviewers visited farm labor camps and interviewed adults there.

TABLE 1. SOCIODEMOGRAPHIC CHARACTERISTICS*

	Migrant Farm Workers		*Telephone Sample*
	n	%	%
Respondents	213	100.00	(n= 800)
Gender			
Male	103	48.40	49.40
Female	110	51.60	50.60
Ethnicity			
Hispanic/Latino	213	100.00	N/A**
White	N/A	N/A	95.70
"Other"	N/A	N/A	4.30
Age			
18-24 yrs. old	48	22.60	15.40
25-34 yrs. old	66	31.10	22.20
35-44 yrs. old	53	25.00	21.70
45-54 yrs. old	25	11.80	14.50
55-64 yrs. old	16	7.50	13.10
65+ yrs. old	4	1.90	13.10
Education			
Some primary school	59	27.80	N/A
Finished primary school (6 yrs.)	53	25.00	N/A
Some secondary school	61	28.80	10.70
Graduated secondary school (12 yrs.)	30	14.20	30.70
At least some college or vocational school	9	4.20	58.60
Income			
Less than $4,999	24	12.20	N/A
$5,000-$9,999	64	32.70	N/A
less than $10,000	N/A	N/A	4.90
$10,000-$14,999	44	22.40	6.00
$15,000-$19,999	30	15.30	7.20
$20,000-$24,999	N/A	N/A	5.90
$20,000-$29,999	20	10.20	N/A
$25,000-$34,000	N/A	N/A	15.80
$30,000-$39,999	10	5.10	N/A
$35,000-$49,999	N/A	N/A	21.20
$40,000 or more	4	2.00	N/A
$50,000-$74,999	N/A	N/A	23.80
$75,000 or more	N/A	N/A	15.20

**Data that appears as "N/A" is a result of differences in categorization between the migrant farmworker survey and telephone survey.*
***N/A: Not Applicable.*

RESULTS

Social and Demographic Characteristics of Respondents

A demographic profile of the sample of respondents can be found in Table 1. The table includes figures for both the current study and the Ottawa County Behavioral Risk Factor Survey in 1999 (called the "telephone sample" in reference to the method of data collection used). As Table 1 shows, 213 participants completed questionnaires for this study. They belong to the following sociodemographic categories:

Gender: Among participants, 103 or 48.40% were male; 110 or 51.60% were female. Among residents of agricultural labor camps, we would expect to find a somewhat higher percentage of men than women. The survey for this study, however, was aimed at recruiting approximately equal numbers of men and women. The comparison with the gender distribution for the telephone sample shows that they were nearly the same, providing a basis for comparability of the two samples.

Ethnicity: All the residents of farm labor camps who participated in this study were Hispanic (belonging to any of several subgroups as discussed further below). The telephone sample included 4.3% of the population designated as "Other," with no further detail on race/ethnicity; the telephone sample thus under-represented Hispanics and other ethnic minority groups in the county.

Age: Generally, the age distribution among adult farm workers would be expected to be younger than that for the county as a whole, and this difference is reflected in the table. In the farm worker sample, so few were over the age of 65 years that they are lumped into a category of 55 and over in the remaining tables.

Hypotheses that may explain the few elderly people are: (1) adults living in migrant camps are mainly of working age and exclude retired workers for the most part, (2) manual farm work tends to wear people out, so that they become physically disabled and cannot continue migrant farm work, and (3) people tend to stop migrant farm work when they can. Workers who are older or disabled often stay in areas where they have been spending the winter, such as south Texas and Florida. Exceptions are a few older women who move with families of migrant farm workers and provide childcare. In addition, life expectancy is shorter for migrant farm workers than for other subpopulations, but much of the difference is due to a relatively high rate of mortality in early childhood rather than deaths of older members of the work force.

Education: The educational level of farm labor camp residents is lower than for the county as a whole; hence, we added categories to show variability at lower levels. Relatively few migrant workers received 12 years of schooling, and normally, those with less than a high school education are called "high school drop-outs." It is important to note, however, that in a population including immigrants from Mexico such as this one, many will have completed primary school only, because primary schools are universally provided by the Mexican government, whereas secondary schools are less numerous and have relatively few students. Some of the study participants with fewer than 12 years of education thus should not be described as "high school drop-outs." Regardless of where they were educated, though, few study participants have more than 12 years of school. We thus lumped such respondents into a category of people with at least some college or vocational school training.

Income: The farm worker survey included categories of annual income that did not fit exactly with the telephone survey. The differences in household income between the migrant sample and the telephone sample were so large that for some migrant groups, separate categories were created. The income levels are listed in ascending order to show all income categories in the two surveys. The categories provide a good basis for comparison. It is notable that 67.3% of farm workers had annual household incomes less than $15,000, compared with only 10.9% of those in the telephone survey.

Ethnicity and Language Preferences

Ethnicity and Current Home Base. Respondents were asked what place they consider to be "home," and with which ethnic group (Mexican, Mexican-American, Hispanic, Chicano, Latino, etc.) they most identified. The statistics are found in Table 2. Most respondents (40.1%) considered Mexico to be their home. The second most common home reported was the state of Michigan (34.7%).

The preferred ethnic term was "Mexicano" (64%). A smaller portion (23.7%) said "Hispano"; 8.1% said "Mexicano-Americano" and only 2.8% preferred the term "Latino." Statistics varied by gender, age, and education levels.

Gender: Women more often reported Michigan to be their home — 38.6%, versus 30.7% of men. Men were much more likely to call Mexico their home, 54.5% compared to 25.7% of women. A large portion of women, 32.7%, said that Texas was their home. Men prefer the term "Mexicano" 68.6% of the time, while only 59.6% of women did. Women answered "Hispano" more often than men, 30.3% compared to men's 16.7%.

Age: The youngest age group, 18 to 24, were least likely to call Michigan home, only 19.1%, and they were more likely to call Mexico home, 59.6%. This younger group also called themselves "Mexicano" 70.2% of the time.

Education: Those who call Texas "home" had the most education. Those with the least education (46.4% of those with only some primary school), called Mexico "home." Of the least educated, 72.9% called themselves "Mexicano." The most educated, 22.2%, were likely to call themselves "Mexicano-Americano." The middle education ranges were more likely to choose "Hispano."

These data support the findings of earlier studies at the Julian Samora Research Institute and Department of Anthropology showing that migrant workers are heterogeneous. The implication of all these studies is that part of the variation results from a pattern of migration of single men from Mexico, marriage with Mexican American women from Texas, and life, work, and childrearing by the couple while laboring as migrant farm workers over the course of many years. Others in this heterogeneous population include couples who are both from Texas, people descended from the south Texas and Mexican populations who are from Florida, and also, people from Michigan who have moved north to the state, where they reside permanently. The latter work as migrant farm workers seasonally, in times of unemployment at non-agricultural jobs, or on an overload basis, to supplement income from year-round jobs.

TABLE 2. ETHNICITY AND LOCATION OF HOME

Place Considered to be Home (Percent)

	Michigan	Mexico	Florida	Texas	Other	n
Total Participants	34.70	40.10	2.50	21.30	1.50	202
Gender						
Male	30.70	54.50	2.00	9.90	2.00	101
Female	38.60	25.70	3.00	32.70	1.00	101
Age						
18-24 yrs. old	19.10	59.60	4.30	14.90	2.10	47
25-34 yrs. old	30.20	41.30	3.20	23.80	1.60	63
35-44 yrs. old	37.50	33.30	0.00	27.10	2.10	48
45-54 yrs. old	58.30	16.70	4.20	20.80	0.00	24
55+	52.60	36.80	0.00	10.50	0.00	19
Education						
Some primary school	37.50	46.40	3.60	10.70	1.80	56
Finished primary school	44.00	34.00	6.00	12.00	4.00	50
Some secondary school	28.80	40.70	0.00	30.50	0.00	59
Graduated secondary school	27.60	37.90	0.00	34.50	0.00	29
Some college/ vocational school/degree	25.00	37.50	0.00	37.50	0.00	8
Income						
Less than $4,999	27.30	54.50	0.00	13.60	4.50	22
$5,000-$9,999	27.40	50.00	3.20	17.70	1.60	62
$10,000-$14,999	50.00	38.60	0.00	9.10	2.30	4
$15,000-$19,999	41.40	17.20	3.40	37.90	0.00	29
$20,000-$29,999	50.00	11.10	0.00	38.90	0.00	18
$30,000-$39,999	22.20	55.60	0.00	22.20	0.00	9
$40,000 or more	25.00	25.00	0.00	50.00	0.00	4

Preferred Ethnic Label (Percent)

	Mexicano	Mexicano-Americano	Hispano	Chicano	Latino	Puerto-Rican	Other	n
Total Participants	64.00	8.10	23.70	0.50	2.80	0.50	0.50	211
Gender								
Male	68.80	8.80	16.70	1.00	3.90	0.00	1.00	102
Female	59.60	7.30	30.30	0.00	1.80	0.90	0.00	109
Age								
18-24 yrs. old	70.20	6.40	17.00	0.00	4.30	0.00	2.10	47
25-34 yrs. old	59.10	9.10	28.80	0.00	3.00	0.00	0.00	66
35-44 yrs. old	66.00	3.80	28.30	0.00	0.00	1.90	0.00	53
45-54 yrs. old	64.00	16.00	16.00	0.00	4.00	0.00	0.00	25
55+	63.20	10.50	15.80	5.30	5.30	0.00	0.00	19
Education								
Some primary school	72.90	8.50	16.90	0.00	1.70	0.00	0.00	59
Finished primary school	60.40	5.70	28.30	0.00	3.80	0.00	1.90	53
Some secondary school	60.70	6.60	24.60	1.60	4.90	1.60	0.00	61
Graduated secondary school	58.60	10.30	31.00	0.00	0.00	0.00	0.00	29
Some college/ vocational school/degree	66.70	22.20	11.10	0.00	0.00	0.00	0.00	9
Income								
Less than $4,999	65.20	4.30	26.10	0.00	4.30	0.00	0.00	23
$5,000-$9,999	59.40	14.10	21.90	0.00	3.10	0.00	1.60	64
$10,000-$14,999	61.40	2.30	29.50	2.30	4.50	0.00	0.00	44
$15,000-$19,999	73.30	3.30	20.20	0.00	3.30	0.00	0.00	30
$20,000-$29,999	55.00	15.00	25.00	0.00	0.00	5.00	0.00	20
$30,000-$39,999	80.00	0.00	20.00	0.00	0.00	0.00	0.00	10
$40,000 or more	50.00	25.00	25.00	0.00	0.00	0.00	0.00	4

Language Preferences. Many of the residents of farm labor camps speak Spanish more fluently than English. The Latino-Hispanic Health Survey included a section regarding language preferences, which are listed in Table 3. Respondents were asked whether they prefer to speak English or Spanish in general, at work, and at home; they were also asked what language they primarily read in, and whether they encounter problems in daily life associated with limited English-speaking abilities. The reason that language "preference" was chosen for the questions was to make use of a series of questions that include issues with language barriers and discrimination on the basis of language use. These issues are dealt with later in this report.

TABLE 3A. LANGUAGE PREFERENCES

	Language Speaking Preferences General (Percent)			
	Spanish	*English*	*Either*	*n*
Total Participants	79.60	2.40	18.00	211
Gender				
Male	77.50	2.90	19.60	102
Female	81.70	1.80	16.50	109
Age				
18-24 yrs. old	70.20	6.40	23.40	47
25-34 yrs. old	81.80	1.50	16.70	66
35-44 yrs. old	77.40	1.90	20.80	53
45-54 yrs. old	88.00	0.00	12.00	25
55+	89.50	0.00	10.50	19
Education				
Some primary school	88.10	1.70	10.20	59
Finished primary school	81.10	1.90	17.00	53
Some secondary school	68.90	3.30	27.90	61
Graduated secondary school	86.20	3.40	10.30	29
Some college/vocational school/degree	66.70	0.00	33.30	9
Income				
Less than $4,999	87.00	4.30	8.70	23
$5,000-$9,999	79.70	1.60	18.80	64
$10,000-$14,999	86.40	2.30	11.40	44
$15,000-$19,999	70.00	6.70	23.30	30
$20,000-$29,999	80.00	0.00	20.00	20
$30,000-$39,999	70.00	0.00	30.00	10
$40,000 or more	75.00	0.00	25.00	4

Most respondents preferred to speak Spanish in general, 79.6%; 2.4% preferred English, and 18% had no preference of one language over the other. At work, more respondents spoke English (10.1%), probably because of the need to work with supervisors who spoke English. At home, 91.9% of respondents spoke less (1.4%). A small percent (1.4%) were illiterate; 84.1% read in Spanish; 7.7%, in English; and 6.7% of the sample could read in either language.

Gender: There were no dramatic differences in language use by gender. Trends suggested by the data include the following. More women primarily read in English (10.4% compared with 4.9% of men). Three times as many women read in both languages (10.4%, compared with 2.9% of men).

TABLE 3B. LANGUAGE PREFERENCES

	Language Speaking Preferences Work (Percent)			
	Spanish	*English*	*Either*	*n*
Total Participants	75.50	10.10	14.40	208
Gender				
Male	75.20	8.90	15.80	101
Female	75.70	11.20	13.10	107
Age				
18-24 yrs. old	68.10	10.60	21.30	47
25-34 yrs. old	76.90	10.80	12.30	65
35-44 yrs. old	73.10	7.70	19.20	52
45-54 yrs. old	83.30	8.30	8.30	24
55+	89.50	10.50	0.00	19
Education				
Some primary school	86.20	10.30	3.40	58
Finished primary school	75.50	9.40	15.10	53
Some secondary school	65.00	11.70	23.30	60
Graduated secondary school	75.90	10.30	13.80	29
Some college/vocational school/degree	75.00	0.00	25.00	8
Income				
Less than $4,999	81.80	13.60	4.50	22
$5,000-$9,999	73.00	11.10	15.90	63
$10,000-$14,999	84.10	6.80	9.10	44
$15,000-$19,999	66.70	10.00	23.30	30
$20,000-$29,999	68.40	15.80	15.80	19
$30,000-$39,999	60.00	0.00	40.00	10
$40,000 or more	75.00	0.00	25.00	4

Age: Of those aged 18 to 24, almost a quarter (23.4%) had no language preference compared with fewer older people (only 10.5% of those aged 55 and older). Almost 90% of those 55 years and older favored Spanish; none preferred English. The oldest group was most likely to not know how to read, 5.3%. Of the youngest group, 10.9% could read bilingually, compared with 5.3% of those aged 55 and up.

Education: The more education respondents had, the more often they preferred to speak English, or both languages equally. Those with the most education were most likely to be bilingual, in general. Those who were illiterate lived in households with incomes below $15,000.

Health education and other printed materials for this population therefore must be presented in both Spanish and English to reach as many people as possible and take into account illiteracy (1.4%).

Number of Children per Woman

As shown in Table 4, 82.7% of women respondents had children. We asked only female respondents this question to avoid counting the same children twice. The percentage of women with children up to the age of 5 years was 38.18%, 50.91% had children aged 6 to 12, and 30.91% had children aged 13 to 18. The mean number of children per woman was 3.5.

TABLE 3C. LANGUAGE PREFERENCES

Primarily Read In (Percent)

	Spanish	*English*	*Either*	*Can't*	*n*
Total Participants	84.10	7.70	6.70	1.40	208
Gender					
Male	90.20	4.90	2.90	2.00	102
Female	78.30	10.40	10.40	0.90	106
Age					
18-24 yrs. old	80.40	8.70	10.90	0.00	46
25-34 yrs. old	87.70	6.20	4.60	1.50	65
35-44 yrs. old	75.50	13.20	9.40	1.90	53
45-54 yrs. old	100.00	0.00	0.00	0.00	24
55+	89.50	0.00	5.30	5.30	19
Education					
Some primary school	91.50	1.70	1.70	5.10	59
Finished primary school	98.10	0.00	1.90	0.00	53
Some secondary school	72.90	11.90	15.30	0.00	59
Graduated secondary school	78.60	14.30	7.10	0.00	28
Some college/vocational school/degree	44.40	44.40	11.10	0.00	9
Income					
less than $4,999	87.00	8.70	4.30	0.00	23
$5,000-$9,999	92.10	6.30	0.00	1.60	63
$10,000-$14,999	88.60	4.50	4.50	2.30	44
$15,000-$19,999	80.00	0.00	20.00	0.00	30
$20,000-$29,999	60.00	20.00	20.00	0.00	20
$30,000-$39,999	80.00	20.00	0.00	0.00	10
$40,000 or more	50.00	25.00	25.00	0.00	4

TABLE 4. NUMBER OF CHILDREN PER WOMAN

	Number	*Percentage of Respondents*
Women with Children	110	82.70
Women with Children Age 0-5*	42	38.18
Women with Children Age 6-12	56	50.91
Women with Children Age 13-18	34	30.91
Mean Number of Children per Woman	*3.5*	

**Women may have children in more than one age bracket.*
Only women were asked about numbers of children to reduce double-counting of households.

TABLE 5. EMPLOYMENT STATUS

	Employed		*Of Those Employed, Current Job Type (Percent)*				
	%	n	Childcare	Farm Work	Food Processing	Gardener or Greenhouse	n
Total Participants	79.30	213	9.00	6.10	2.40	0.60	166
Gender							
Male	94.20	103	0.00	95.90	1.00	1.00	97
Female	65.50	110	21.70	72.50	4.30	0.00	69
Age							
18-24 yrs. old	87.50	48	2.40	88.10	7.10	0.00	42
25-34 yrs. old	78.80	66	8.00	88.00	0.00	2.00	50
35-44 yrs. old	84.90	53	11.40	84.10	2.30	0.00	44
45-54 yrs. old	64.00	25	12.50	87.50	0.00	0.00	16
55+	0.00	20	21.40	78.60	0.00	0.00	14
Education							
Some primary school	74.60	59	11.40	86.40	2.30	0.00	44
Finished primary school	88.70	53	8.50	89.40	0.00	2.10	47
Some secondary school	75.40	61	6.70	82.20	4.40	0.00	45
Graduated secondary school	86.70	30	12.50	83.30	4.20	0.00	24
Some college/ vocational school/degree	55.60	9	0.00	100.00	0.00	0.00	5
Income							
Less than $4,999	70.80	24	11.80	82.40	5.90	0.00	17
$5,000-$9,999	82.80	64	3.80	90.40	3.80	0.00	52
$10,000-$14,999	79.50	44	8.60	85.70	0.00	2.90	35
$15,000-$19,999	86.70	30	23.10	76.90	0.00	0.00	26
$20,000-$29,999	75.00	20	14.30	78.60	0.00	0.00	14
$30,000-$39,999	80.00	10	0.00	85.70	14.30	0.00	7
$40,000 or more	50.00	4	0.00	10.00	0.00	0.00	2

Employment Status

Table 5 shows the employment status of residents of farm labor camps at the time of the survey. A large proportion of the sample was employed, 79.3%.

Gender: Of employed women, 72.5% were doing "farm work," and 21.7% were working in childcare. Men had an employment rate of 94.2%, which was much higher than that of women (65.5%). It is important to note that generally, women form the "elastic" labor force among migrant farm workers (i.e., they are the "last hired and first fired" compared with men), and that this survey was done in the fall, when the labor demand in the county may have been declining. In this sample, 95.9% of employed men were employed in "farm work," a general category that could overlap with working as a gardener or in greenhouses. Work in "food processing" also can be an ambiguous category, as some farms move workers among fields, orchards, food packing houses, and food processing plants. Many workers also move among these different types of work each season.

Age: The highest employment rate was among the youngest adults, 87.50%, and they also had the highest percentage doing farm work, 88.1% and food processing, 7.1%. These percentages may in part reflect participation by women in the work force at a high rate before they start childbearing. Those working in childcare at the highest percent were in the 55-and-over age category (21.4%). They were probably women (mostly grandmothers in extended families, according to ethnographic observation).

Education: The distribution of jobs by education shows some fluctuation, but no steady trend.

Income: The distribution of jobs by income also shows some fluctuation, especially when the highest income category is ignored because of the small sub-sample. Those working in childcare most frequently lived in households with annual incomes of $15,000 to $19,999, which is an intermediate category in this study. Those doing farm work varied from 76.9% to 90.4% of the household various income categories (omitting the highest income category at 100%). Those with relatively high household incomes ($30,000-$39,000/year) had the highest percent working in food processing plants (14.3%). This pattern may indicate the importance of food processing jobs to maintaining a steady income stream through the year, rather than better pay being received in food processing plants.

Health Status and Health Screening

Current Health Status

When asked to rate their health at the time of the survey, 84.5% of respondents answered "OK." If respondents answered that they were not well, they were asked more specifically about their problems. The results for the first question were recorded in Table 6 and some common problems are listed later in the report. The responses varied according to gender, age, education level, annual household income, and in comparison to the telephone sample.

Gender: Men rated their health as better than women did, with 90.3% of men rating their health as "OK" versus only 79.1% of women.

Age: Health status dropped drastically among respondents 45 years and older. Of those younger than 45 years of age, 89 to 90% reported having health that was "OK," while only 55% of those aged 55 and up gave their health the same rating.

Education: Health ratings rose somewhat with the level of education. Of those with only some primary school, 72.9% rated their health as "OK," while 93.3% of those who had graduated from secondary school rated their health the same.

Income: Health ratings fluctuated with annual household income; the least healthy belonged to households with incomes of $5,000 to $9,999, the next to lowest income category --73.4% rated their health as "OK." Among those with incomes of $30,000 and over, 100% said their health was "OK."

Telephone Sample: A much larger percentage of those in the telephone sample rated their overall health as "good" to "excellent" compared with Hispanic migrant workers. Of telephone respondents, 93% said that their health was good, very good, or excellent, compared with 84.5% of Hispanics rating theirs "OK." The percentage of Hispanics reporting poor health (15.5%) was over twice that of the telephone respondents reporting poor to fair health (7%).

Cholesterol Screening

Respondents were asked questions relating to cholesterol levels: whether or not they had "ever been checked." If so, they were then asked whether they had ever been told that it was high, and if so, whether any medicine to lower blood cholesterol levels had been prescribed. Responses to the first two questions are listed in Table 7.

TABLE 6. CURRENT PERCEIVED HEALTH STATUS

	Migrant Farmworkers (%)		*Telephone Sample (%) (n= 800)*	
	OK	Not OK	"Excellent" "Very Good" or "Good"	"Fair" or "Poor"
Total Participants (n= 213)*	84.50	15.00	93.00	7.00
Gender				
Male (n= 103)	90.30	8.70	94.70	5.30
Female (n= 110)	79.10	20.90	91.40	8.60
Age				
18-24 yrs. old (n= 48)	89.60	8.30	95.90	4.10
25-34 yrs. old (n= 66)	89.40	10.60	96.10	3.90
35-44 yrs. old (n= 53)	90.60	9.40	97.00	3.00
45-54 yrs. old (n= 25)	72.00	28.00	90.40	9.60
55+ (n= 20)	55.00	45.00	87.50	12.50
Education				
Some primary school (n= 59)	72.90	27.10	N/A	N/A
Finished primary school (n= 53)	86.80	13.20	83.20	16.80
Some secondary school (n= 61)	88.50	9.80	90.10	9.90
Graduated secondary school (n= 30)	93.30	6.70	94.60	5.40
Some college/ vocational school/degree (n= 9)	88.90	11.10	97.50	2.50
Income				
Less than $4,999 (n= 24)	91.70	8.30	N/A	N/A
$5,000-$9,999 (n= 64)	73.40	25.00	N/A	N/A
less than $10,000	N/A	N/A	64.70	35.30
$10,000-$14,999 (n= 44)	90.90	9.10	90.50	9.50
$15,000-$19,999 (n= 30)	80.00	20.00	92.00	8.00
$20,000-$24,999	N/A	N/A	94.90	5.10
$20,000-$29,999 (n= 20)	95.00	5.00	N/A	N/A
$25,000-$34,999	N/A	N/A	94.60	5.40
$30,000-$39,999 (n= 10)	100	0.00	N/A	N/A
$35,000-$49,999	N/A	N/A	95.20	4.80
$40,000 or more (n= 4)	100	0.00	N/A	N/A
$50,000-$74,999	N/A	N/A	95.20	4.80
$75,000 or more	N/A	N/A	98.10	1.90

**Sample size (n) refers to migrant farm workers. Number of respondents for each question in telephone sample is not known.*

Overall, only 34.8% of respondents had ever had their blood cholesterol level tested. Of those who had been screened, 20.8% were told that their levels were high. Out of the group with high blood cholesterol levels, 26.7% had been prescribed medication. The differences in demographic statistics are as follows:

Gender: Women were more likely to have their cholesterol levels checked (43.7% versus 25.7% of men). Women were also more likely to have high cholesterol levels, (26.7% versus 11.1% of men). Of those with high levels, one third of women had received prescriptions; the number of men with high levels is too small to make a clear comparison.

TABLE 7. CHOLESTEROL SCREENING

	Ever Had Cholesterol Screening		*Of Those Screened Ever Told Results Were High*		*Those with High Results: Prescribed Medication*	
	%	n	%	n	%	n
Total Participants	34.80	204	20.80	72	26.70	15
Gender						
Male	25.70	101	11.10	27	0.00	3
Female	43.70	103	26.70	45	33.30	12
Age						
18-24 yrs. old	15.20	46	0.00	7	N/A	N/A
25-34 yrs. old	32.30	62	0.00	20	0.00	2
35-44 yrs. old	39.20	51	19.00	21	25.00	4
45-54 yrs. old	44.00	25	27.30	11	0.00	3
55+	63.20	19	41.70	12	60.00	5
Education						
Some primary school	42.40	59	24.00	25	50.00	6
Finished primary school	34.60	52	26.30	19	20.00	5
Some secondary school	30.40	56	17.60	17	0.00	3
Graduated secondary school	28.60	28	12.50	8	0.00	1
Some college/ Vocational school/degree	33.30	9	0.00	3	N/A	N/A
Income						
Less than $4,999	47.80	23	9.10	11	100.00	1
$5,000-$9,999	25.80	62	31.30	16	60.00	5
$10,000-$14,999	40.50	42	23.50	17	0.00	4
$15,000-$19,999	39.30	28	8.30	12	0.00	1
$20,000-$29,999	36.80	19	42.90	7	0.00	3
$30,000-$39,999	20.00	10	0.00	2	N/A	N/A
$40,000 or more	50.00	4	0.00	2	N/A	N/A

Age: The rates of having ever been tested ascend with age, as do high cholesterol levels. At 18-24 years old, 15.2% of the sample had been tested, and none had been told that their levels were high. In the 55-and-over age group, 63.2% had been tested, and 41.7% of those who had been screened had been told that their rates were high. (However, because of small numbers, we cannot claim a pattern of variation by age in prescriptions).

Education: Those with less education had been screened more often, more often had high levels, and more often had been given prescriptions. This pattern may be largely due to the relationship between older age and less education.

Income: Income showed a fluctuating relationship to screening--those with higher incomes did not show a clear pattern of higher screening rates. The same is true with reports of high levels; the numbers in the upper brackets are too small to provide good comparisons. Regarding prescriptions, the numbers are also too small to provide solid comparisons.

Telephone Sample: In the telephone sample, 75%replied that they had "ever had their levels checked." Those reporting high levels were nearly the same as those with high levels in the migrant camps (19% versus 20.8%). However, the migrant camp residents were considerably younger on average, indicating an earlier age at onset with high levels.

Blood Pressure Screening

Table 8 shows responses regarding blood pressure: whether it had even been checked, whether it had been checked in the past two years, whether hypertension had been diagnosed, and whether medicine had been prescribed.

The majority of respondents (77.1%) had their blood pressure checked; 87.5% had done so in the past two years. Of those who that had been told that their blood pressure was high (18.5% of respondents), 43.3% had medication prescribed. Forty percent of those with prescriptions said that they took their medicine all of the time, but another 33.3% said that they never took it (percentages not shown in table). Results varied according to demographic statistics, as follows:

Gender: Women said "yes" to all of the hypertension questions at a rate much higher than men; 68% of men had ever had their levels checked while 85.5% of women had done so. Those with high blood pressure included 13.2% of the men and 22.3% of the women who had been screened. Those with prescriptions included 22.2% of the men and 52.4% of the women who had been diagnosed with high blood pressure.

TABLE 8A. BLOOD PRESSURE SCREENING

	Of Those Whose Blood Pressurewas Ever Checked:						*Those with High Results:*	
	Blood Pressure Ever Checked		*Checked Within Past Two Years*		*Ever Told High*		*Medication Prescribed*	
	%	n	%	n	%	n	%	n
Total Participants	77.10	210	87.50	161	18.50	162	43.30	30
Gender								
Male	68.00	100	80.60	67	13.20	68	22.20	9
Female	85.50	110	92.60	94	22.30	9	2.40	21
Age								
18-24 yrs. old	56.30	48	88.80	26	14.80	27	50.00	4
25-34 yrs. old	87.70	65	82.50	57	14.00	57	0.00	8
35-44 yrs. old	80.80	52	90.40	42	26.20	42	45.50	11
45-54 yrs. old	84.00	25	85.80	21	14.30	21	100.00	3
55+	73.70	19	100.00	14	28.60	14	75.00	4
Education								
Some primary school	67.80	59	80.00	40	17.50	40	42.90	7
Finished primary school	70.60	51	83.30	36	16.70	36	66.70	6
Some secondary school	85.20	61	90.20	51	17.30	52	44.40	9
Graduated secondary school	86.70	30	100.00	26	15.40	26	50.00	4
Some college/ vocational school/degree	88.90	9	87.50	8	50.00	8	0.00	4
Income								
Less than $4,999	58.30	24	85.70	14	28.60	14	25.00	4
$5,000-$9,999	81.30	64	82.70	52	21.20	52	63.60	11
$10,000-$14,999	78.60	42	93.80	32	21.20	33	14.30	7
$15,000-$19,999	93.30	30	85.70	28	14.30	28	50.00	4
$20,000-$29,999	90.00	20	88.90	18	16.70	18	66.70	3
$30,000-$39,999	50.00	10	80.00	5	20.00	5	0.00	1
$40,000 or more	75.00	4	100.00	3	0.00	3	N/A	N/A

TABLE 8B. PREVALENCE OF STROKE, HEART TROUBLE, CANCER & HEPATITIS

	Ever had Stroke		*Ever had Heart Trouble*		*Ever had Cancer*		*Ever had Hepatitis*	
	%	n	%	n	%	n	%	n
Total Participants	1.90	213	3.30	213	1.40	213	0.90	213
Gender								
Male	1.90	103	3.90	103	0.00	103	1.00	103
Female	1.80	110	2.70	110	2.70	110	0.90	110
Age								
18-24 yrs. old	0.00	48	4.20	48	0.00	48	0.00	48
25-34 yrs. old	0.00	66	1.50	66	1.50	66	1.50	66
35-44 yrs. old	7.50	53	1.90	53	1.90	53	0.00	53
45-54 yrs. old	0.00	25	0.00	25	4.00	25	4.00	25
55+	0.00	20	15.00	20	0.00	20	0.00	20
Education								
Some primary school	3.40	59	8.50	59	1.70	59	1.70	59
Finished primary school	0.00	53	0.00	53	0.00	53	1.90	53
Some secondary school	3.30	61	3.30	61	1.60	61	0.00	61
Graduated secondary school	0.00	30	0.00	30	0.00	30	0.00	30
Some college/ vocational school/degree	0.00	9	0.00	9	11.10	9	0.00	9
Income								
Less than $4,999	0.00	24	12.50	24	0.00	24	0.00	24
$5,000-$9,999	0.00	64	1.60	64	0.00	64	1.60	64
$10,000-$14,999	4.50	44	6.80	44	2.30	44	0.00	44
$15,000-$19,999	0.00	30	0.00	30	0.00	30	3.30	30
$20,000-$29,999	0.00	20	0.00	20	5.00	20	0.00	20
$30,000-$39,999	0.00	10	0.00	10	0.00	10	0.00	10
$40,000 or more	25.00	4	0.00	4	25.00	4	0.00	4

Age: The percent of those who had blood pressure check-ups did not clearly increase with age. Among those who had been screened, though, the percent checked in the past two years did increase somewhat with age. Among those ever screened, 82.5% of those ages 25 to 34 had been "checked in the past two years" compared to 100% of those 55 and older. The instances of hypertension fluctuated and increased somewhat with age, with a range from 14% to 28.6% in the various age groups.

Education: The frequency of having one's blood pressure checked showed a clear trend with years of education; 67.8% of those with less than an elementary education had been checked compared to 88.9% of the group with some college education. Checks "in the past two years" showed a somewhat similar pattern, although not as clearly. Percentages with high blood pressure do not show a clear pattern, nor do percentages with prescriptions.

Telephone Sample: The general telephone sample had much higher percentages with blood pressure screening, with 99.2%.

Prevalence of Stroke, Heart trouble, Cancer, and Hepatitis

Respondents were asked if they had ever suffered from a stroke, heart trouble, cancer and/or Hepatitis. Out of the total participants, 1.9% reported ever having a stroke, 3.3% reported ever having heart trouble, 1.4% reported ever having cancer, and 0.9% reported ever having Hepatitis (See Table 8b).

TABLE 9A. PREVALENCE OF DIABETES

	Diagnosed Diabetic		*Of Those who are Diagnosed Diabetic: Taking Medication*	
	%	n	%	n
Total Participants	6.20	209	90.90	11
Gender				
Male	3.00	101	100.00	3
Female	9.30	108	87.50	8
Age				
18-24 yrs. old	2.10	48	N/A	N/A
25-34 yrs. old	1.50	65	N/A	N/A
35-44 yrs. old	3.80	53	100.00	2
45-54 yrs. old	12.00	25	100.00	3
55+	29.40	17	100.00	5
Education				
Some primary school	12.50	56	100.00	7
Finished primary school	3.80	53	100.00	1
Some secondary school	6.60	61	66.70	3
Graduated secondary school	0.00	30	N/A	N/A
Some college/vocational school/degree	0.00	9	N/A	N/A
Income				
Less than $4,999	8.70	23	100.00	2
$5,000-$9,999	6.30	63	100.00	4
$10,000-$14,999	6.80	44	100.00	2
$15,000-$19,999	10.00	30	100.00	2
$20,000-$29,999	5.00	20	0.00	1
$30,000-$39,999	0.00	10	N/A	N/A
$40,000 or more	0.00	4	N/A	N/A
Age of Onset (mean ± s.d.)	*38.25 ± 15.77*			

Age: A higher percentage of respondents in the age category of 55 and over reported ever having heart trouble in comparison with the age categories of those 54 and under.

Income: Out of the respondents who reported ever having heart trouble, the highest percentage (12.5%) falls into the lowest income bracket of less than $4,999.

Diabetes Prevalence

Table 9A shows responses to the question "Have you been told that you have diabetes?" Of the respondents, 6.2% said that they had diabetes. The average age at diagnosis was 38. Of those diagnosed (90.9%) said that they were taking medication, with one quarter receiving insulin (numbers not shown in table). Prevalence of diabetes varies according to demographic groups, as well.

Gender: Females were more likely to have diabetes, 9.3% compared with 3% of men.

Age: The frequency of diabetes increased rapidly with age. At 35 to 44 years of age, 3.8% had diabetes compared to 12% of those 45 to 54 years old, and 29.4% of those over 55.

TABLE 9B. PREVALENCE OF ALLERGY, ANEMIA, AND ARTHRITIS

	Ever Had Allergy		*Ever Had Anemia*		*Ever Had Arthritis*	
	%	n	%	n	%	n
Total Participants	18.30	213	8.50	211	10.30	213
Gender						
Male	21.40	103	2.00	101	8.70	103
Female	15.50	110	14.50	110	11.80	110
Age						
18-24 yrs. old	20.80	48	14.90	47	10.40	48
25-34 yrs. old	15.20	66	4.50	66	1.50	66
35-44 yrs. old	18.90	53	7.70	52	13.20	53
45-54 yrs. old	20.00	25	12.00	25	20.00	25
55+	20.00	20	5.00	20	20.00	20
Education						
Some primary school	16.90	59	3.40	59	18.60	59
Finished primary school	17.00	53	11.50	52	9.40	53
Some secondary school	16.40	61	9.80	61	6.60	61
Graduated secondary school	23.30	30	13.80	29	6.70	30
Some college/vocational school/degree	33.30	9	0.00	9	0.00	9
Income						
Less than $4,999	29.20	24	17.40	23	25.00	24
$5,000-$9,999	18.80	64	1.60	64	6.30	64
$10,000-$14,999	22.70	44	9.10	44	15.90	44
$15,000-$19,999	10.00	30	13.30	30	6.70	30
$20,000-$29,999	10.00	20	15.00	20	15.00	20
$30,000-$39,999	0.00	10	10.00	10	0.00	10
$40,000 or more	25.00	4	0.00	3	0.00	4

Education: The respondents who had a high school diploma or more education reported no diabetes.

Income: There was not a clear relationship shown between household income and reported diagnoses with diabetes; a larger sample would be required to study any differences.

Telephone Sample: The rate of diabetes was slightly lower in the telephone sample (4.9%) and the telephone sample had a greater average age, possibly indicating earlier onset of diabetes among the migrant camp residents.

Prevalence of Allergy, Anemia and Arthritis

Respondents wee asked if they had ever had allergies, anemia and/or arthritis. Out of the total participants, 18.3% reported ever having an allergy, 8.5% reported ever having anemia, and 10.3% reported ever having arthritis (See Table 9B).

Gender: There was a notable difference between male and females regarding anemia. A higher percentage of females (14.5%) reported ever having anemia compared to males (2.0%).

Asthma

Respondents were asked whether not they had a series of health problems, which included asthma (Table 10A). Overall, 7% had been told that they had asthma. This number is lower than that in the telephone survey, 11.9%. (numbers may be lower due to less access to healthcare where asthma might possibly have been diagnosed). Differences according to demographic statistics were scattered.

TABLE 10A. PREVALANCEOF ASTHMA

	Have Asthma	
	%	n
Total Participants	7.00	213
Gender		
Male	7.80	103
Female	6.40	110
Age		
18-24 yrs. old	6.30	48
25-34 yrs. old	4.50	66
35-44 yrs. old	5.70	53
45-54 yrs. old	20.00	25
55+	5.00	20
Education		
Some primary school	5.10	59
Finished primary school	5.70	53
Some secondary school	13.10	61
Graduated Secondary school	3.30	30
Some college/ vocational school/degree	0.00	9
Income		
Less than $4,999	12.50	24
$5,000-$9,999	9.40	64
$10,000-$14,999	4.50	44
$15,000-$19,999	6.70	30
$20,000-$29,999	10.00	20
$30,000-$39,999	0.00	10
$40,000 or more	0.00	4

Vision Problems and Examinations

Respondents were asked whether or not they had ever received an optical examination and if so, how long it had been since their last exam. They were also asked if they had problems with their eyes or vision. Almost half (49.8%) of the respondents had received an eye exam at some point, and of those who had, 36.8% of the respondents had received an eye exam within the past year (See Table 10B).

Gender: A higher percentage (60%) of females had ever had optical examinations, compared to men (38.8%).

Age: There was an age-related trend with those ever having had eye exams. The likelihood of the respondents ever having an exam increased with age.

Psychological Health

Respondents were asked a series of questions regarding stress and symptoms of depression. They were asked whether, in the past month, they had "stress or emotional problems." They were also asked about symptoms of depression, i.e. whether they had had problems, in the past month, with sleeping, eating, ability to concentrate and level of energy. Table 11 shows, first, responses of "yes" to the question on stress or emotional problems and then percentages of "yes" to three or more specific symptoms of depression.

We designed the questionnaire to include specific symptoms of depression because we doubted that residents of farm labor camps would have the same concepts of stress, depression, and other psychological states as conceived in the research literature on mental health. These two categories of responses on the present survey, emotional problems and specific symptoms, are designed for comparison to the telephone sample's question on "stress, depression, or problems with emotions."

When asked about stress or emotional problems, 16.4% said that they had such problems within the past month. In response to items on symptoms of depression, 8% answered "yes" to three or more questions.

Gender: Gender was the most influential demographic characteristic. When asked about emotions, 20% of females said that they had problems, while only 12.6% of men answered similarly.

TABLE 10B. VISION PROBLEMS AND EXAMINATIONS

	Had Eye or Vision Problems		*Had Eye Exam*		*Of Those Who Had Eye Exam Had Exam Within Past Year*	
	%	n	%	n	%	n
Total Participants	28.20	213	49.80	213	36.80	117
Gender						
Male	21.40	103	38.80	103	33.30	45
Female	34.50	110	60.00	110	38.90	72
Age						
18-24 yrs. old	16.70	48	33.30	48	35.30	17
25-34 yrs. old	25.80	66	47.00	66	36.10	36
35-44 yrs. old	18.90	53	54.70	53	34.40	32
45-54 yrs. old	48.00	25	56.00	25	20.00	15
55+	60.00	20	75.00	20	56.30	16
Education						
Some primary school	47.50	59	45.80	59	43.30	30
Finished primary school	17.00	53	45.30	53	30.80	26
Some secondary school	23.00	61	54.10	61	44.40	36
Graduated secondary school	26.70	30	50.00	30	22.20	18
Some college/ vocational school/degree	11.10	9	77.80	9	28.60	7
Income						
Less than $4,999	25.00	24	41.70	24	40.00	10
$5,000-$9,999	35.90	64	56.30	64	33.30	39
$10,000-$14,999	29.50	44	43.20	44	30.40	23
$15,000-$19,999	33.30	30	63.30	30	45.00	20
$20,000-$29,999	10.00	20	50.00	20	33.30	12
$30,000-$39,999	10.00	10	60.00	10	66.70	6
$40,000 or more	25.00	4	25.00	4	0.00	1

Age, Education, and Income: Patterns according to these variables were unclear; percentages fluctuated across categories.

Telephone survey: Direct comparisons to the telephone survey are difficult due to the methodological differences in asking about mental health problems. The telephone survey asked, "Do you feel that stress, depression, or problems with emotions have been a problem for you in the past month?" Of those responding affirmatively (30.9%), 24.1% were men and 37.5% were women. These percentages are higher than percentages of migrant camp residents regarding stress or emotional problems, but considerably lower than migrants' reports of symptoms of depression.

Other Reported Diseases, Disorders, and Syndromes

In addition to asking specific questions on health status, those surveyed were asked what health problems they had. The question was open-ended. Table 11b lists the types and frequency of disease, disorder, and syndrome related responses. The most frequent complaint was stomach pain (2.3%), which encompassed stomachaches, indigestion, and gastritis.

TABLE 11A. PSYCHOLOGICAL HEALTH

	In the Past Month:			
	Stress or Emotional Problems		*≥ 3 Symptoms of Depression**	
	%	n	%	n
Total Participants	16.40	213	8.00	212
Gender				
Male	12.60	103	4.90	102
Female	20.00	110	10.90	110
Age				
18-24 yrs. old	16.70	48	12.80	47
25-34 yrs. old	16.70	66	6.10	66
35-44 yrs. old	15.10	53	1.90	53
45-54 yrs. old	12.00	25	20.00	25
55+ 20.00	20	5.00	20	
Education				
Some primary school	15.30	59	8.50	59
Finished primary school	15.10	53	7.50	53
Some secondary school	18.00	61	6.60	61
Graduated secondary school	16.70	30	6.90	29
Some college/vocational school/degree	22.20	9	22.20	9
Income				
Less than $4,999	20.80	24	12.50	24
$5,000-$9,999	15.60	64	9.40	64
$10,000-$14,999	15.90	44	4.50	44
$15,000-$19,999	13.30	30	10.00	30
$20,000-$29,999	25.00	20	5.00	20
$30,000-$39,999	20.00	10	0.00	10
$40,000 or more	0.00	4	0.00	3

**Symptoms of depression include problems with sleeping, eating, ability to concentrate, and energy level.*

Occupational Health

Occupational Health Hazards

The Hispanic migrant worker population encounters specific health hazards that other employees may not. To explore these problems, respondents were asked how many hours they typically worked per week. They were also asked if they operated heavy machinery at work, such as tractors, trucks, seeders, harvesters, lifts, or other similar equipment. The results are recorded in Table 12.

The average number of hours worked per week by respondents was 43.5. Most respondents, 70.2% worked 36 to 45 hours per week. Close to a third, 31.8%, used heavy machinery regularly at their job. Demographic statistics affected responses as follows:

Gender: Women generally worked fewer hours than men. For example, no men replied that they work one to 25 hours per week, but 5.5% of women did report this. Men were more likely to work 46 to 55 hours, at a rate of 21.4%, and only 16.4% of women reported the same. Men were more likely to use heavy machinery; 44.9% of men did so compared with only 13.9% of women.

Age: The age group most likely to use heavy machinery is 25-to-34-year-olds, of whom 42.3% reported doing so. The group least likely to use these machines is 18 to 24, with only 19% reporting to work with machinery.

Education: Those most likely to use heavy machinery had less than a high school degree. Those least likely to use heavy machinery had graduated from high school.

Income: Those with the highest household incomes worked the longest hours. Those with lowest incomes, 61.1%, worked 36 to 45 hours per week. Migrant workers from households making $15,000 to $19,999 a year were most likely to be working with dangerous machinery.

Lower Back Pain

Due to the strenuous nature of farm laborers' work, back problems and back strain is common. Respondents were asked a series of questions regarding this concern; first, "Do you currently have pain in your lower back?" If they responded with "No," they were asked if they had experienced pain within the past year. If respondents answered positively to either of these questions, they were asked if they treated themselves or sought treatment for lower back pain. Respondents were also asked whether they ever had to cut back on work because of the pain.

Information regarding lower back pain is represented in Table 13. Overall, 25.2% of the Hispanic migrant sample reported that they had lower back pain at the time of the survey. Of those who said that they did not, 27.0% had suffered from back pain in the past twelve months. Overall 14.9% of the sample had treated themselves or sought treatment for their backs, and 12.9% had to work fewer hours because of back pain. Gender and income levels showed the strongest relationship to prevalence.

TABLE 11B. OTHER REPORTED DISEASES AND SYNDROMES

	Frequency
Infectious and Parasitic Diseases	
Gastroenteritis	0.5%
Neoplasms	
Breast Cancer	0.9%
Nervous System	
Carpal Tunnel Syndrome	0.5%
Cataracts	0.5%
Eye Diseases	0.5%
Hearing Problems	13.1%
Circulatory System	
Unspecified Heart Disease	0.5%
Low Blood Pressure	0.5%
Respiratory System	
Common Cold/ Sore Throat	0.9%
Flu	0.5%
Digestive System	
Stomach Ulcer	1.0%
Stomach Ache/Pain/	
Indegestion/Gastritis	2.3%
Hiatus Hernia	0.5%
Allergic Gastroenteritis	0.5%
Genitourinary Tract	
Breast Pain	0.5%
Pregnancy	
Nausea due to Pregnancy	0.5%
Musculoskeletal System and Connective Tissue	
Rheumatoid Arthritis	0.5%
Muscle Cramps	1.0%
Sign/Symptom/Ill-Defined Conditions	
Fatigue, Tiredness	0.9%
Skin Rash	0.5%
Headache	0.9%
Heart Murmur	0.5%
Other Sign/Symptom/ Ill-defined Condition	1.4%
"Nervios"	0.5%
Allergy (unspecified cause)	0.5%
Preventative Medicine	
Artificial Heart Valve	0.5%
Ever Had TB Tine Test	52.1%

Gender: No apparent difference was found between gender with regards to back pain. Over a quarter of the women surveyed reported back pain at the time of the questioning, (26.7%), men had a similar response of current back pain of 23.5%. However, men were more likely to have had back pain in the recent past, 42% of men compared to 34.9% of women. Females were more likely to seek treatment, 19.6% compared to 10.4% of men, but men were more likely to miss work because of back pain, 14.6% compared to 11.1% of women.

TABLE 12. WORKING CONDITIONS

	Operated Vehicle		*Hours Worked per Week*					
	%	n	1-25	26-35	36-45	46-55	56-80	n
Total Participants	31.80	170	2.30%	2.30%	70.20%	19.30%	5.80%	171
Gender								
Male	44.90	98	0.00%	2.00%	70.40%	21.40%	6.10%	98
Female	13.90	72	5.50%	2.70%	69.90%	16.40%	5.50%	73
Age								
18-24 yrs. old	19.00	42	2.40%	0.00%	73.80%	16.70%	7.10%	42
25-34 yrs. old	42.30	5	0.00%	7.70%	61.50%	23.10%	7.70%	52
35-44 yrs. old	34.10	44	4.40%	0.00%	68.90%	20.00%	6.70%	45
45-54 yrs. old	33.30	18	5.60%	0.00%	77.80%	16.70%	0.00%	18
55+	21.40	14	0.00%	0.00%	85.70%	14.30%	0.00%	14
Education								
Some primary school	30.20	43	2.30%	2.30%	65.90%	27.30%	2.30%	44
Finished primary school	33.30	48	0.00%	2.10%	72.90%	20.80%	4.20%	48
Some secondary school	41.30	46	6.50%	4.30%	76.10%	10.90%	2.20%	46
Graduated secondary school	18.50	27	0.00%	0.00%	55.60%	22.20%	22.20%	27
Some college/ vocational school/degree	20.00	5	0.00%	0.00%	100.00%	0.00%	0.00%	5
Income								
Less than $4,999	11.10	18	0.00%	5.60%	61.10%	33.30%	0.00%	18
$5,000-$9,999	32.70	55	0.00%	3.60%	78.20%	12.70%	5.50%	55
$10,000-$14,999	50.00	34	2.90%	0.00%	71.40%	22.90%	2.90%	35
$15,000-$19,999	34.60	26	7.70%	0.00%	65.40%	19.20%	7.70%	26
$20,000-$29,999	28.60	14	7.10%	0.00%	57.10%	28.60%	7.10%	14
$30,000-$39,999	25.00	8	0.00%	0.00%	62.50%	12.50%	25.00%	8
$40,000 or more	0.00	2	0.00%	50.00%	0.00%	0.00%	50.00%	2

Income: No one with more than $30,000 a year in household income reported back pain at the time of the survey. No one with more than $40,000 a year reported back pain in the past twelve months. This finding may be due to either the lower number of individuals represented within this category, or it may also reflect the decline of strenuous labor associated with these higher paying jobs. The income bracket most likely to work less because of back pain was the $5,000-and-under group.

Pesticide Awareness

Once again, the nature of farm work bears occupation specific health hazards of which the majority of the population receives little exposure. Safe pesticide use is a growing concern. Respondents were asked whether pesticides were used at their workplace. If they responded positively, they were asked whether they had received pesticide training, and whether they were ever sprayed by pesticides while working in the fields. Finally, respondents were asked whether they ever suffered from burning eyes, cough, nausea, or skin rash while at work, and if they reported these occurrences to a migrant clinic.

Pesticide statistics can be found in Tables 14 and 15. Overall, 83.6% said that pesticides are used at their place of work. Of those respondents, 94.7% had received some degree of pesticide training, and 10.10% had been sprayed with chemicals. In response to questions on symptoms, 14.2% have been sick from pesticides, and 28.6% of that group reported feeling illness. Responses varied by demographic characteristics.

TABLE 13. LOWER BACK PAIN

	Currently Have		Of Those Who Currently Have or Have Had Back Pain Within the Past Year: Within Past Year		Were Treated		Worked Less	
	%	n	%	n	%	n	%	n
Total Participants	25.20	210	27.00	141	14.90	94	12.90	93
Gender								
Male	23.50	102	31.90	72	10.40	48	14.60	48
Female	26.90	108	21.70	69	19.60	46	11.10	45
Age								
18-24 yrs. old	27.10	48	31.30	32	13.00	23	21.70	23
25-34 yrs. old	20.00	65	31.90	47	7.40	27	3.70	27
35-44 yrs. old	26.90	52	21.90	32	18.20	2	13.60	22
45-54 yrs. old	32.00	25	31.30	16	28.60	14	7.10	14
55+	26.30	19	7.10	14	12.50	8	28.60	7
Education								
Some primary school	19.00	58	11.40	44	10.00	20	26.30	19
Finished primary school	32.70	52	16.70	30	19.00	21	14.30	21
Some secondary school	21.70	60	38.10	42	24.10	29	6.70	30
Graduated secondary school	33.30	30	47.10	17	5.60	18	5.90	17
Some college/ vocational school/degree	11.10	9	50.00	8	0.00	5	20.00	5
Income								
Less than $4,999	29.20	24	20.00	15	18.20	11	40.00	10
$5,000-$9,999	30.20	63	30.00	40	15.20	33	12.50	32
$10,000-$14,999	20.90	43	28.10	32	5.90	17	17.60	17
$15,000-$19,999	16.70	30	8.70	23	28.60	7	0.00	7
$20,000-$29,999	36.80	19	25.00	8	22.20	9	11.10	9
$30,000-$39,999	0.00	10	33.30	9	0.00	3	0.00	4
$40,000 or more	0.00	4	0.00	3	N/A		N/A	

Gender: Men reported exposure to pesticides more often than women did, 76% to 91.3%, to having received some degree of pesticide training. Men said that they had felt ill from pesticides (17.6%) more often than women (10.5%).

Age: The group that most often used pesticides at work was the 55-and-over group, citing 94.4%. All respondents in the oldest age group have received some sort of pesticide education. The group least likely to have been sprayed by pesticides, 2.4%, was the youngest age group.

Education: The group least likely to receive pesticide training was the most educated, 14.3% of them did not get any supplementary education regarding these sensitive chemicals. Transversely, a fifth, (20.8%), of the lowest education level, has suffered from burning eyes, cough, nausea, or a skin rash related to pesticide application and consequential poisoning.

Income: A large percentage, (16.7%), of those making $4,999 or less, did not know whether pesticides were used at their job. The next closest response by any income group was $10,00 to $14,999, 2.3% of who did not know. No one with at least $30,000 in household income reported ever being sprayed by pesticides. This difference could be because those with an income of $30,000 and greater, may not be working in the fields and there fore are not exposed to pesticides.

Health Behaviors

Cigarette Use

This study addressed health risk behaviors, including assessment of past and present smoking habits. The results are found in Table 16. The first question was "Have you ever smoked?" followed by "Do you now smoke?" Using these questions, the number of smokers at the time of the survey and the number of those who had never smoked were calculated. The quit ratio (percentage of smokers who had stopped smoking) was also calculated. Respondents were also asked how many cigarettes they smoked per day, and whether anyone smoked inside their home.

Overall, 43.4% of those surveyed had ever smoked cigarettes. Of these, 41.3% were current smokers at the time of the survey, with the average number of cigarettes smoked per day 4.89. Over half, (56.6%) had never smoked. A majority of those who had smoked had successfully quit (58.7%). Smoking rates also varied according to demographic characteristics, such as:

Gender: Men had a much higher rate (71.6%) of ever smoking than women (17.3%). However, once started, men had a better chance of quitting, (60.3%), compared to women (52.6%).

Age: The younger aged participants, 18-24 years old, were more likely to have ever smoked, (56.3%), than older aged participants, 55+ years old, (26.3%). The age group most likely to currently smoke and have the lowest quit ratio is participants 25-34 years old.

TABLE 14. PESTICIDE EXPOSURE

	Use at Work		*Of Those Who Use Pesticides at Work: Had Pesticide Training*		*Been Sprayed*	
	%	n	%	n	%	n
Total Participants	83.60	207	94.70	169	10.10	169
Gender						
Male	91.30	103	93.60	94	8.70	92
Female	76.00	104	96.00	75	11.70	77
Age						
18-24 yrs. old	89.40	47	90.20	41	2.40	41
25-34 yrs. old	81.50	65	98.00	51	5.80	52
35-44 yrs. old	76.90	52	89.70	39	13.20	38
45-54 yrs. old	83.30	24	100.00	20	25.00	20
55+	94.40	18	100.00	17	17.60	17
Education						
Some primary school	86.00	57	89.80	49	18.40	49
Finished primary school	74.50	51	94.60	37	8.10	37
Some secondary school	88.30	60	98.10	52	5.90	51
Graduated secondary school	89.70	29	100.00	25	0.00	25
Some college/ vocational school/degree	66.70	9	80.00	5	33.30	6
Income						
Less than $4,999	75.00	24	94.40	18	16.70	18
$5,000-$9,999	85.50	62	94.30	53	9.60	52
$10,000-$14,999	88.40	43	92.10	38	8.10	37
$15,000-$19,999	85.70	28	95.70	23	12.50	24
$20,000-$29,999	90.00	20	100.00	17	16.70	18
$30,000-$39,999	70.00	10	100.00	7	0.00	7
$40,000 or more	50.00	43	100.00	2	0.00	2

TABLE 15. PESTICIDE RELATED ILLNESS

	*Had Symptoms**		*Reported Illness*	
	%	n	%	n
Total Participants	14.20	197	28.60	28
Gender				
Male	17.60	102	27.80	18
Female	10.50	95	30.00	10
Age				
18-24 yrs. old	20.00	45	22.20	9
25-34 yrs. old	8.50	59	20.00	5
35-44 yrs. old	11.50	52	33.30	6
45-54 yrs. old	17.40	23	25.00	4
55+	23.50	17	50.00	4
Education				
Some primary school	20.80	53	27.30	11
Finished primary school	13.70	51	28.60	7
Some secondary school	7.10	56	50.00	4
Graduated secondary school	18.50	27	20.00	5
Some college/vocational school/degree	11.10	9		1
Income				
Less than $4,999	21.70	23	20.00	5
$5,000-$9,999	6.70	60	50.00	4
$10,000-$14,999	14.60	41	66.70	6
$15,000-$19,999	11.10	27	33.30	3
$20,000-$29,999	15.80	19	0.00	3
$30,000-$39,999	10.00	10	0.00	1
$40,000 or more	25.00	4	0.00	1

**Symptoms include burning eyes, cough, nausea, or skin rash.*

Telephone Sample: The rates of smoking, never smoking, and the quit ratio for both groups of Ottawa County Residents were in the same relative range. The average smoker in the telephone sample, however, smoked 16 cigarettes a day.

Nutrition

Respondents' weight status was calculated in the same manner as the Michigan Behavioral Risk Factor Survey (MBRFS). This was done using the individual's Body Mass Index. Results are classified into groups of, "underweight," "overweight," and "ideal weight" ranges. Men were classified as underweight if their BMI score was 20.7 or less, and women, 19.1 or less. Men were classified as overweight if their score was 27.8 or higher, and women, 27.3 or higher. Respondents were also asked whether they were currently trying to lose weight.

Overall, 2.2% of the participants were categorized as underweight, 51.6% as ideal, and 46.2% as overweight (Table 17). Additionally, one quarter of the respondents, (25.9%), reported trying to lose weight. The distribution of BMI weight classification and attempted weight loss vary according to sociodemographic characteristics:

Gender: Women (60.9%) were classifies as overweight compared to men (31.9%). Furthermore, a higher percentage of women (37.3%) were trying to lose weight.

TABLE 16. CIGARETTE SMOKING

	Ever Smoked		*Current Smokers*		*Quit Ratio*	
	%	n	%	n	%	n
Total Participants	43.40	212	41.30	92	58.70	92
Gender						
Male	71.60	102	39.70	73	60.30	73
Female	17.30	110	47.40	19	52.60	19
Age						
18-24 yrs. old	56.30	48	29.60	27	70.40	27
25-34 yrs. old	47.00	66	54.80	31	45.20	31
35-44 yrs. old	37.70	53	45.00	20	55.00	20
45-54 yrs. old	36.00	25	33.30	9	66.70	9
55+	26.30	19	20.00	5	80.00	5
Education						
Some primary school	32.20	59	36.80	19	63.20	19
Finished primary school	50.90	53	37.00	27	63.00	27
Some secondary school	50.80	61	51.60	31	48.40	31
Graduated secondary school	36.70	30	27.30	11	72.70	11
Some college/vocational school/degree	44.40	9	50.00	4	50.00	4
Income						
Less than $4,999	50.00	24	33.30	12	66.70	12
$5,000-$9,999	57.80	64	48.60	37	51.40	37
$10,000-$14,999	31.80	44	42.90	14	57.10	14
$15,000-$19,999	30.00	30	11.10	9	88.90	9
$20,000-$29,999	30.00	20	66.70	6	33.30	6
$30,000-$39,999	40.00	10	75.00	4	25.00	4
$40,000 or more	50.00	4	100.00	2	0.00	2
Cigarettes Per Day (mean ± s.d.)	*4.89 ± 5.48*					

Telephone Sample: The Hispanic migrant group generally had higher BMI scores, across the board, compared with the telephone sample. Fewer Hispanics were trying to lose weight; 45.7% of the telephone sample were trying to do so.

Dietary Habits

The survey included a section asking specific questions regarding dietary habits. Respondents were asked how many fruits and vegetables they normally eat in a day, and whether they normally eat fried foods every day. They were also asked how many times per week they would consume a meal from a fast food restaurant.

The recommended daily consumption of fruits and vegetables for one person is five servings. Most respondents ate one or less servings of fruit (57.5%) and vegetables (45.5%) per day (Table 18). A high percentage (84%) of respondents ate at least one serving of fried food per day, however, most respondents (82.5%) visit fast food restaurants less then 2 times per week.

TABLE 17. BODY MASS INDEX AND WEIGHT LOSS

	BMI Score				*Trying to Lose Weight*	
	Underweight	Ideal Range	Overweight	n	%	n
Total Participants	2.20	51.60	46.20	186	25.90	212
Gender						
Male	4.30	63.80	31.90	94	13.70	102
Female	0.00	39.10	60.90	92	37.30	110
Age						
18-24 yrs. old	4.40	80.00	15.60	45	20.80	48
25-34 yrs. old	1.90	52.80	45.30	53	25.80	66
35-44 yrs. old	2.10	34.00	63.80	47	28.30	53
45-54 yrs. old	0.00	39.10	60.90	23	36.00	25
55+	0.00	41.20	58.80	17	21.10	19
Education						
Some primary school	4.00	42.00	54.00	45	20.80	48
Finished primary school	2.10	44.70	53.20	53	25.80	66
Some secondary school	1.90	63.00	35.20	47	28.30	53
Graduated secondary School	0.00	57.10	42.90	23	36.00	25
Some college/ vocational school/degree	0.00	57.10	42.90	17	21.10	19
Income						
Less than $4,999	0.00	73.70	26.30	19	8.30	24
$5,000-$9,999	5.00	56.70	38.30	60	23.40	64
$10,000-$14,999	0.00	52.90	47.10	34	29.50	44
$15,000-$19,999	0.00	39.30	60.70	28	36.70	30
$20,000-$29,999	0.00	30.00	70.00	20	35.00	20
$30,000-$39,999	11.10	66.70	22.20	9	10.00	10
$40,000 or more	0.00	33.30	66.70	3	50.00	2

Alcohol Use

Respondents were also asked a series of questions regarding alcohol use. They were first asked to rate how often they drank alcoholic beverages, often, occasionally, rarely, or never. Respondents were also asked when drinking, how many drinks they consume. From this the number of "binge drinkers" was quantified. According to the MBRFS, binge drinking is consuming five or more drinks on one occasion.

Almost half of the Hispanic migrant group, (48.6%), fell into the category of abstainers (Table 19). Of those who do drink, participants were more likely to use alcohol lightly or moderately. However, almost half of those of those who use alcohol (47.6%) were categorized as binge drinkers.

Gender: fewer men (18%) abstain from alcohol than women (76.4%). Also, men (12%) were more likely to refer to themselves as heavy drinkers. No woman identifies herself as a heavy drinker. There were also differences by gender for binge drinking. Of those who drink, men (57.7%) were more likely to binge drink during a single incidence than women (9.50%).

Telephone Sample: The number of drinkers in both surveys was similar, overall. The percentage reporting binge drinking was much higher in the Hispanic group, as the telephone sample received such information from only 16.3% of respondents.

TABLE 18A. DIETARY HABITS

Average Daily Consumption (Percent) — Servings of Fruit

	0-1	1.5-2.5	3-4	4.5-10	n
Total Participants	57.50	25.50	13.20	3.80	212
Gender					
Male	50.00	25.50	16.70	7.80	102
Female	64.50	25.50	10.00	0.00	212
Age					
18-24 Yrs. Old	58.30	14.60	18.80	8.30	48
25-34 Yrs. Old	56.10	28.80	13.60	1.50	66
35-44 Yrs. Old	64.20	22.60	9.40	3.80	53
45-54 Yrs. Old	44.00	40.00	12.00	4.00	25
55+	57.90	31.60	10.50	0.00	19
Education					
Some Primary School	49.20	28.80	16.90	5.10	59
Finished Primary School	64.20	22.60	5.70	7.50	53
Some Secondary School	62.30	23.00	14.80	0.00	61
Graduated Secondary School	56.70	26.70	16.70	0.00	30
Some College/vocational School/degree	44.40	33.30	11.10	11.10	9
Income					
Less than $4,999	54.20	12.50	29.20	4.20	24
$5,000-$9,999	56.30	29.70	12.50	1.60	64
$10,000-$14,999	47.70	31.80	18.20	2.30	44
$15,000-$19,999	56.70	33.30	3.30	6.70	30
$20,000-$29,999	85.00	15.00	0.00	0.00	20
$30,000-$39,999	70.00	10.00	10.00	10.00	10
$40,000 or More	25.00	25.00	50.00	0.00	4

Average Daily Consumption (Percent) — Servings of Vegetables

	0-1	1.5-2.5	3-4	4.5-10	n
Total Participants	45.50	21.80	30.30	2.40	211
Gender					
Male	45.50	23.80	27.70	3.00	101
Female	45.50	20.20	32.70	1.80	110
Age					
18-24 Yrs. Old	52.10	14.60	29.20	4.20	48
25-34 Yrs. Old	48.50	13.60	33.30	4.50	66
35-44 Yrs. Old	38.50	34.60	26.90	0.00	52
45-54 Yrs. Old	44.00	24.00	32.00	0.00	25
55+	42.10	26.30	31.60	0.00	19
Education					
Some Primary School	39.70	31.00	29.30	0.00	58
Finished Primary School	52.80	26.40	18.90	1.90	53
Some Secondary School	42.60	9.80	41.00	6.60	61
Graduated Secondary School	53.30	13.30	33.30	0.00	30
Some College/vocational School/degree	33.30	44.40	22.20	0.00	9
Income					
Less than $4,999	33.30	25.00	37.50	4.20	24
$5,000-$9,999	51.60	15.60	29.70	3.10	64
$10,000-$14,999	46.50	30.20	20.90	2.30	43
$15,000-$19,999	46.70	20.00	30.00	3.30	30
$20,000-$29,999	45.00	30.00	25.00	0.00	20
$30,000-$39,999	40.00	20.00	40.00	0.00	10
$40,000 or More	50.00	0.00	50.00	0.00	4

TABLE 18B. DIETARY HABITS

Average Daily Consumption (Percent) — Weekly Visits to Fast Food Restaurants

	0	1-1.5	2-3	4-8	n
Total Participants	35.10	47.40	13.30	4.30	211
Gender					
Male	40.60	46.50	6.90	5.90	101
Female	30.00	48.20	19.10	2.70	110
Age					
18-24 Yrs. Old	18.80	50.00	22.90	8.30	48
25-34 Yrs. Old	34.80	51.50	10.60	3.00	66
35-44 Yrs. Old	30.20	49.10	15.10	5.70	53
45-54 Yrs. Old	70.80	20.80	8.30	0.00	24
55+	42.10	57.90	0.00	0.00	19
Education					
Some Primary School	52.50	39.00	1.70	6.80	59
Finished Primary School	35.80	39.60	22.60	1.90	53
Some Secondary School	28.30	55.00	13.30	3.30	60
Graduated Secondary School	16.70	60.00	16.70	6.70	30
Some College/vocational School/degree	22.20	55.60	22.20	0.00	9
Income					
Less than $4,999	37.50	41.70	12.50	8.30	24
$5,000-$9,999	34.90	49.20	11.10	4.80	63
$10,000-$14,999	40.90	54.40	2.30	2.30	44
$15,000-$19,999	30.00	50.00	20.00	0.00	30
$20,000-$29,999	25.00	55.00	15.00	5.00	20
$30,000-$39,999	10.00	50.00	20.00	20.00	10
$40,000 or More	25.00	25.00	50.00	0.00	4

Average Daily Consumption (Percent) — Servings of Fried Foods

	>1	n
Total Participants	84.00	212
Gender		
Male	91.20	102
Female	77.30	110
Age		
18-24 Yrs. Old	87.50	48
25-34 Yrs. Old	78.80	66
35-44 Yrs. Old	86.80	53
45-54 Yrs. Old	88.00	25
55+	78.90	19
Education		
Some Primary School	88.10	59
Finished Primary School	96.20	53
Some Secondary School	77.00	61
Graduated Secondary School	73.30	30
Some College/vocational school/degree	66.70	9
Income		
Less than $4,999	87.50	24
$5,000-$9,999	87.50	64
$10,000-$14,999	84.10	44
$15,000-$19,999	90.00	30
$20,000-$29,999	65.00	20
$30,000-$39,999	90.00	10
$40,000 or More	25.00	4

TABLE 19. ALCOHOL USE

	Habitual Consumption (Percent)					*Single Incidence Consumption Of Those Who Use Alcohol: Binge Drink* (Percent)*	
	Abstain	Light	Moderate	Heavy	n	%	n
Total Participants	48.60	21.40	24.30	5.70	210	47.60	103
Gender							
Male	18.00	31.00	39.00	12.00	100	7.30	82
Female	76.40	12.70	10.90	0.00	110	9.50	21
Age							
18-24 yrs. old	56.90	12.10	25.90	5.20	58	52.20	23
25-34 yrs. old	43.40	26.40	20.80	9.40	53	51.40	35
35-44 yrs. old	45.00	21.70	28.30	5.00	60	39.30	28
45-54 yrs. old	60.00	20.00	16.70	3.30	30	60.00	10
55+	11.10	55.60	33.30	0.00	9	8.60	7
Education							
Some primary school	56.90	12.10	25.90	5.20	58	46.20	26
Finished primary school	43.40	26.40	20.80	9.40	53	53.60	28
Some secondary school	45.00	21.70	28.30	5.00	60	54.80	31
Graduated secondary school	60.00	20.00	16.70	3.30	30	27.30	11
Some college/ vocational school/degree	11.10	55.60	33.30	0.00	9	28.60	7
Income							
Less than $4,999	58.30	16.70	20.80	4.20	24	33.30	9
$5,000-$9,999	34.40	23.40	35.90	6.30	64	58.50	41
$10,000-$14,999	48.80	25.60	18.60	7.00	43	42.90	21
$15,000-$19,999	76.70	16.70	3.30	3.30	30	14.30	
$20,000-$29,999	55.00	15.00	30.00	0.00	20	44.40	9
$30,000-$39,999	70.00	10.00	20.00	0.00	10	66.70	3
$40,000 or more	0.00	75.00	25.00	0.00	4	33.30	3

**Binge drinking is defined as consuming five or more drinks in one sitting.*

Prevention and Detection Behaviors

Routine Visits to Physicians

Respondents were asked how many times they had visited a doctor's office or clinic. From these data, the percentage of those who had done so within the past year was calculated. Nearly half, 45.1%, had visited a doctor within the past year (Table 20). Differences existed by gender.

Gender: Men (28.20%) were less likely to have visited the doctor within the year, compared with women (60.9%).

Telephone Sample: A much higher rate of this group had been within the past year, 75.7%.

Women's Preventative Health Practices

Due to the importance of early detection in breast cancer, several questions were asked regarding check-up practices. Women were asked whether or not they ever had a mammogram, as well as a clinical breast exam. The mammogram results were spilt into two age groups, less than 35 years and ages 35 above. The American Cancer Society recommends that women have a baseline mammogram performed at age 35, followed by screening mammograms every one to two years.

As shown in Table 21, 55.4% of women 35 and older have had a mammogram. The number of women who received clinical breast exams is higher (61.7%) This is probably due to the fact that women start receiving clinical breast exams at a younger age than mammograms. Results vary by age and education.

Age: As age increases, women are more likely to have had both mammograms and clinical breast exams.

Education: In the category of women under 35, women with more education were more likely to have ever had a mammogram.

TABLE 20. ROUTINE PHYSICIAN VISITS

Visited Doctor in Past Year

	%	n
Total Participants	45.10	213
Gender		
Male	28.20	103
Female	60.90	110
Age		
18-24 yrs. old	43.80	48
25-34 yrs. old	43.90	66
35-44 yrs. old	39.60	53
45-54 yrs. old	56.00	25
55+	50.00	20
Education		
Some primary school	30.50	59
Finished primary school	47.20	53
Some secondary school	57.40	61
Graduated secondary school	46.70	30
Some college/ vocational school/degree	44.40	9
Income		
Less than $4,999	37.50	24
$5,000-$9,999	45.30	64
$10,000-$14,999	34.10	44
$15,000-$19,999	56.70	30
$20,000-$29,999	60.00	20
$30,000-$39,999	40.00	10
40,000 or more	75.00	4

Telephone Sample: Of the women 35 years and old and older (84.8%) those in the telephone sample had received mammograms.

Table 22 deals with women and Pap test history by measuring if they have had a Pap test, and how recently this was done. Most Latina women (78.2%) in the migrant farm worker sample have had a Pap test. Of those who ever had a Pap test, 69.8% had been in the past year.

Telephone Sample: Of women 35 years old and older, those in the telephone sample (84.8%) were more likely to have ever had a mammogram than the women in the migrant farm worker survey (55.4%).

Conclusion: Women in the telephone survey (96%) were more likely to have ever had a Pap test than women in the migrant farm worker sample (78.2%).

Men's Reproductive Health

Male respondents age 40 and over were asked about their prostate exam history. They were asked whether they ever had a digital rectal exam, a PSA blood test, or had been told that their PSA was high. Of these men over 40, only 6.5% had ever had a digital rectal exam, 12.9% had a PSA blood test, and of those 25% had a high PSA level. The results found in Table 23 vary by age. As age increases, men are more likely to have had a digital prostate exam.

TABLE 21. WOMEN AND BREAST CANCER PREVENTION

	Ever Had Mammogram				*Ever Had Clinical Breast Exam*	
	Women < 35		Women >= 35		All Women	
	%	*n*	%	*n*	%	*n*
Total Participants	14.00	50	55.40	56	61.30	106
Age						
18-24 yrs. old	6.30	16	N/A	N/A	43.80	16
25-34 yrs. old	17.60	34	N/A	N/A	58.80	34
35-44 yrs. old	N/A	N/A	45.50	33	60.60	33
45-54 yrs. old	N/A	N/A	69.20	13	76.90	13
55+	N/A	N/A	70.00	10	80.00	10
Education						
Some primary school	0.00	4	56.50	23	51.90	27
Finished primary school	11.10	9	50.00	14	56.50	23
Some secondary school	11.10	18	80.00	10	72.40	29
Graduated secondary school	20.00	15	42.90	7	68.20	22
Some college/vocational school/degree	25.00	4	0.00	2	50.00	6
Income						
Less than $4,999	12.50	8	60.00	5	61.50	13
$5,000-$9,999	20.00	10	61.50	13	56.50	23
$10,000-$14,999	30.00	10	66.70	9	73.70	19
$15,000-$19,999	0.00	10	50.00	12	63.60	22
$20,000-$29,999	20.00	5	40.00	10	75.00	16
$30,000-$39,999	0.00	4	33.30	3	14.30	7
$40,000 or more	0.00	1	100.00	1	100.00	2

Dental Care Needs

Interviewers asked a series of questions in regards to dental care. Regarding dental visits (Table 24), participants were asked whether they had ever gone and how long it had been since they had last visited a dentist. If the respondents had not been to a dentist within the past year, they were asked why. Reasons most cited for not going to the dentist in the past year included, "not necessary," "too expensive," and "too busy." All other reasons were placed into the category of "other." Regarding dental problems (Table 25), respondents were asked whether the suffered from a toothache, bleeding gums, sore jaw, or painful aching in their mouth in the past year, and "How many permanent teeth had been removed or lost due to tooth decay, infection, or gum disease?" (Not from injury or orthodontics).

Of the total participants, 25.90% had never been to the dentist and 47.8% had been to the dentist in the past two years. The most common reason for no dental check-up within the past year was, " not necessary." Regarding dental problems, over a third of the sample (34%) had experienced severe dental pain within the past year and of those who did had to have teeth removed; an average 43.27% have had at least 1 tooth removed. Demographic statistics also contribute to these factors:

Gender: Men (35.9%) were more likely than women (16.5%) to have never been to a dentist. Women (28.20%) were more likely than men (5.20%) to state, "too expensive" as a reason for no check-up within the past year. While men (66.2%) were more likely than women (45.7%) to state, "not necessary" as a reason for no check-up in the past year.

TABLE 22. WOMEN AND PAP TEST HISTORY

	Had a Pap Test		*Time of Last Pap Test*				
	%	n	< 1 year	1-2 years	3-5 years	> 5 years	n
Total Participants	78.20	110	69.80	16.30	9.30	4.70	86
Age							
18-24 yrs. old	52.90	17	55.60	33.30	11.10	0.00	9
25-34 yrs. old	82.90	35	75.90	13.80	10.30	0.00	29
35-44 yrs. old	72.70	33	70.80	16.70	8.30	4.20	24
45-54 yrs. old	100.00	14	64.30	14.30	14.30	7.10	14
55+	90.00	10	66.70	11.10	0.00	22.20	9
Education							
Some primary school	77.80	27	66.70	19.00	9.50	4.80	21
Finished primary school	73.90	23	82.40	5.90	5.90	5.90	17
Some secondary school	87.10	31	70.40	11.10	14.80	3.70	27
Graduated secondary school	73.90	23	58.80	35.30	5.90		17
Some college/vocational school/degree	66.70	6	75.00			25.00	4
Income							
Less than $4,999	76.90	13	90.00	10.00	0.00	0.00	10
$5,000-$9,999	75.00	24	61.10	27.80	0.00	11.10	18
$10,000-$14,999	78.90	19	73.30	13.30	13.30	0.00	15
$15,000-$19,999	95.50	22	57.10	14.30	23.80	4.80	21
$20,000-$29,999	75.00	16	75.00	25.00	0.00	0.00	12
$30,000-$39,999	57.10	7	50.00	0.00	25.00	25.00	4
$40,000 or more	100.00	2	100.00	0.00	0.00	0.00	2

TABLE 23. PROSTATE EXAM HISTORY: MALES AGE 40 AND OVER

	Had Prostate Exam		Had Blood Test		*Of Those Who Had Blood Test: High PSA Level*	
	%	n	%	n	%	n
Total Participants	6.50	31	12.90	31	25.00	4
Age						
40-44 yrs. old	0.00	9	11.10	9	0.00	1
45-54 yrs. old	9.10	11	18.20	11	50.00	2
55+	12.50	8	12.50	8	0.00	1
Education						
Some primary school	12.55	16	12.50	16	50.00	2
Finished primary school	0.00	9	11.10	9	0.00	1
Some secondary school	0.00	4	0.00	4	N/A	N/A
Graduated secondary school	0.00	2	50.00	2	0.00	1
Income						
Less than $4,999	0.00	2	0.00	2	N/A	N/A
$5,000-$9,999	5.90	17	11.80	17	0.00	2
$10,000-$14,999	0.00	7	14.30	7	0.00	1
$15,000-$19,999	33.30	3	33.30	3	100.00	1
$20,000-$29,999	0.00	1	0.00	1	N/A	N/A

TABLE 24. DENTAL VISITS

	Dental Visits: Never	Within Past 2 Years	n
Total Participants	25.90	47.80	212
Gender			
Male	25.90	47.80	212
Female	35.90	37.80	103
Age			
18-24 yrs. old	41.70	37.50	48
25-34 yrs. old	21.20	45.50	66
35-44 yrs. old	26.90	51.90	52
45-54 yrs. old	12.00	52.00	25
55+	20.00	60.00	20
Education			
Some primary school	32.20	37.30	59
Finished primary school	30.20	47.20	53
Some secondary school	20.00	56.70	60
Graduated secondary school	20.00	53.40	30
Some college/vocational school/degree	11.10	44.40	9
Income			
Less than $4,999	25.00	41.70	24
$5,000-$9,999	20.30	54.70	64
$10,000-$14,999	38.60	36.40	44
$15,000-$19,999	23.30	53.30	30
$20,000-$29,999	10.00	65.00	20
$30,000-$39,999	20.00	50.00	10
$40,000 or more	33.30	33.30	3

Reasons for No Check-up Within Past Year

	Not Necessary	Too Expensive	Lack of Insurance	Too Busy	Other	n
Total Participants	57.50	14.90	8.20	5.20	14.10	134
Gender						
Male	66.20	5.20	7.80	6.50	14.30	77
Female	45.70	28.10	8.80	3.50	14.10	57
Age						
18-24 yrs. old	57.60	9.10	0.00	15.20	18.20	33
25-34 yrs. old	57.20	16.70	11.90	4.80	9.50	42
35-44 yrs. old	59.40	12.50	15.60	0.00	12.50	32
45-54 yrs. old	60.00	26.70	6.70	0.00	6.70	15
55+	54.50	18.20	0.00	0.00	27.30	11
Education						
Some primary school	56.40	17.90	7.70	5.10	12.80	39
Finished primary school	63.90	11.10	5.60	8.30	11.10	36
Some secondary school	51.50	12.10	12.10	3.00	21.20	33
Graduated secondary school	47.40	26.30	5.30	5.30	15.80	19
Some college/vocational school/degree	83.30	0.00	16.70	0.00	0.00	6
Income						
Less than $4,999	53.30	13.30	6.70	6.70	20.00	15
$5,000-$9,999	60.50	13.20	13.20	7.90	5.30	38
$10,000-$14,999	61.30	16.10	9.70	0.00	9.60	31
$15,000-$19,999	61.10	22.20	0.00	5.60	11.20	18
$20,000-$29,999	36.40	18.20	18.20	9.10	18.20	11
$30,000-$39,999	20.00	0.00	0.00	0.00	80.00	5
$40,000 or more	50.00	0.00	0.00	0.00	50.00	2

Age: As age increases, participants are less likely to state "too busy" as a reason for no check-up within the past year.

Telephone Sample: Those interviewed by telephone were almost twice as likely to have visited the dentist within the past two years, at 91.6%. Roughly 20% of both groups cited money or insurance problems for not going to the dentist, but the telephone group was far more likely to have claimed fear of dental treatment (9.8%) or being too busy (21.3%). The migrant group was also statistically more likely to have severe dental problems, the telephone sample only amounted to 20.5%.

TABLE 25. DENTAL PROBLEMS

	Dental Problems Within Past Year	
	%	n
Total Participants	34.00	212
Gender		
Male	34.00	103
Female	33.90	109
Age		
18-24 yrs. old	35.40	48
25-34 yrs. old	37.90	66
35-44 yrs. old	30.80	52
45-54 yrs. old	28.00	25
55+	35.00	20
Education		
Some primary school	30.50	59
Finished primary school	28.30	53
Some secondary school	45.00	60
Graduated secondary school	30.00	30
Some college/vocational school/degree	33.30	9
Income		
Less than $4,999	20.80	24
$5,000-$9,999	35.90	64
$10,000-$14,999	36.40	44
$15,000-$19,999	33.30	30
$20,000-$29,999	45.00	20
$30,000-$39,999	20.00	10
$40,000 or more	33.30	3
Total Participants Who Have Had Teeth Removed	43.27	208
Number of Teeth Removed Per Participant		
1-4 Teeth	35.00	208
5-9 Teeth	7.27	208
32 Teeth	1.00	208

**Includes toothache, bleeding gums, sore jaw, or painful aching in mouth.*

Access to Health Care

Respondents were asked whether they had health care coverage, such as insurance, HMOs, or government plans such as Medicare. Table 26 shows the percentage of those who did not have medical insurance. The rate of no insurance was very high (85.0%) in the migrant farm worker sample. Women (21.8%) were more likely to have coverage than men (7.8%). Among women with children, 64.4% said that they had an insurance policy for their child or children. According to the telephone survey, only 5.6% of Ottawa County residents lack health insurance. The most common name given by respondents of health care was Medicare.

Community Perceptions

Abuse

Respondents were asked whether or not they have encountered various forms of abuse, or if they know of someone who has. Specifically, the questions addressed, verbal abuse, physical abuse, and sexual abuse. Respondents were also asked if they consider abuse a problem within the community.

The most common form of abuse reported was verbal, at 11.4%, physical at 8.1%, and sexual at 2.9% (Table 27). When asked, "Is abuse a problem among the people you know?" 13.3% said, "yes." Results varied according to age.

Age: Hispanics aged 18-24 were more likely than all other age groups to verbalize knowledge of someone who had suffered from verbal abuse (17%), physical abuse (14.9%), and sexual abuse (6.40%).

TABLE 26. HEALTH INSURANCE

	Do Not Have Insurance		*Do Have Health Insurance For Their Children**	
	%	n	%	n
Total Participants	85.00	213	64.40	87
Gender				
Male	92.20	103	N/A	N/A
Female	78.20	110	64.40	87
Age				
18-24 yrs. old	89.60	48	77.80	9
25-34 yrs. old	80.30	66	82.80	29
35-44 yrs. old	83.00	53	51.60	31
45-54 yrs. old	92.00	25	63.60	11
55+	85.00	20	16.70	6
Education				
Some primary school	86.40	59	45.00	20
Finished primary school	92.50	53	63.20	19
Some secondary school	83.60	61	76.00	25
Graduated secondary school	86.70	30	72.20	18
Some college/vocational school/degree	33.30	9	60.00	5
Income				
Less than $4,999	83.30	24	71.40	7
$5,000-$9,999	93.80	64	52.60	19
$10,000-$14,999	79.50	44	81.30	16
$15,000-$19,999	73.30	30	66.70	21
$20,000-$29,999	90.00	20	73.30	15
$30,000-$39,999	80.00	10	25.00	4
$40,000 or more	75.00	4	50.00	2

**Only women were asked this question to avoid double counting.*

Discrimination

Respondents were asked whether they feel that they have been discriminated against, and where it was that they faced this discrimination. Overall, 26% of respondents felt that they have been discriminated against (Table 28). Most discrimination was experienced in stores (34.7%) followed by discrimination by employers (28.6%). Statistics varied mostly by gender. Men (32%) felt discriminated against more often than females (20.4%). Women felt discriminated against at school (10%) and by the police (15%), while no men felt discriminated against at these places. Men were more likely to feel discriminated against at by employers (41.4%), compared with women (10%).

Language Barriers in Daily Situations

Respondents were asked whether they found it difficult to cope with daily situation because they had problems speaking English. About half (50.3%) answered that they did (Table 29). The results did not vary much by sociodemographic characteristics.

TABLE 27. ABUSE

	Know of Someone Who Has Encountered Abuse						*Believe Abuse is a Problem Within the Community*	
	Verbal		Physical		Sexual			
	%	*n*	%	*n*	%	*n*	%	*n*
Total Participants	11.40	211	8.10	211	2.90	210	13.30	210
Gender								
Male	11.90	101	5.90	101	1.00	100	15.00	100
Female	10.90	110	10.00	110	4.50	110	11.80	110
Age								
18-24 yrs. old	17.00	47	14.90	47	6.40	47	20.80	48
25-34 yrs. old	10.60	66	7.60	66	3.10	65	9.40	64
35-44 yrs. old	11.30	53	5.70	53	1.90	53	15.10	53
45-54 yrs. old	4.00	25	0.00	25	0.00	25	0.00	25
55+	5.30	19	5.30	19	0.00	19	15.80	19
Education								
Some primary school	6.80	59	6.80	59	0.00	59	10.20	59
Finished primary school	13.20	53	5.70	53	1.90	53	11.50	52
Some secondary school	11.70	60	10.00	60	5.10	59	16.40	61
Graduated secondary school	13.30	30	10.00	30	6.70	30	17.20	29
Some college/vocational school/degree	22.20	9	11.10	9	0.00	9	11.10	9
Income								
Less than $4,999	8.30	24	12.50	24	4.20	24	25.00	24
$5,000-$9,999	9.50	63	4.80	63	0.00	63	9.50	63
$10,000-$14,999	13.60	44	11.40	44	7.00	43	16.30	43
$15,000-$19,999	10.00	30	6.70	30	0.00	30	13.30	30
$20,000-$29,999	15.00	20	5.00	20	5.00	20	10.00	20
$30,000-$39,999	20.00	10	20.00	10	0.00	10	10.00	10
$40,000 or more	25.00	4	0.00	4	0.00	4	0.00	4

Attitudes towards HIV-AIDS

Because AIDS is a significant health concern, respondents were asked at what age they believed to be most appropriate to provide information regarding the disease. The age groups that respondents were given to choose from six to twelve years of age, thirteen to fourteen years of age, and fifteen to eighteen years of age; 42.6% said the youngest age bracket was best to provide information, 52.3% the middle bracket, and 5.1% the eldest (Table 30). The most influential factor on responses was gender; women generally thought that children should be slightly older (13-14 years) when they receive sensitive HIV or AIDS information.

CONCLUSIONS

This report summarizes the results of a health survey on the health status, behavioral and occupational risk factors, and access to health care of the adult migrant farm worker population of Ottawa County. The first survey of its kind, it was undertaken in fall, 2001 because the1999 Behavioral Risk Factor Survey (BRFS), a telephone survey of 800 adults, underrepresented the county's ethnic minorities. Only 4.3% of respondents in the BRFS were non-white. The current Hispanic population includes 19,393 people, including migrant workers, comprising 8% of the county population.

TABLE 28. DISCRIMINATION

	Ever Experienced Discrimination		DISCRIMINATION HAD BEEN EXPERIENCED							
			By Co-workers	*By Employers*	*At School*	*By Police*	*At Banks*	*In Stores*	*Other*	n
Total Participants	26.00%	208	6.10%	28.60%	4.10%	6.10%	4.10%	34.70%	16.30%	49
Gender										
Male	32.00%	100	6.90%	41.40%	0.00%	0.00%	6.90%	31.00%	13.80%	29
Female	20.40%	108	5.00%	10.00%	10.00%	15.00%	0.00%	40.00%	20.00%	20
Age										
18-24 yrs. old	28.30%	46	8.30%	33.30%	0.00%	0.00%	0.00%	41.70%	16.70%	12
25-34 yrs. old	25.80%	66	6.70%	20.00%	6.70%	6.70%	6.70%	46.70%	6.70%	15
35-44 yrs. old	21.20%	52	9.10%	45.50%	0.00%	0.00%	0.00%	36.40%	9.10%	11
45-54 yrs. old	37.50%	24	0.00%	14.30%	0.00%	14.30%	0.00%	14.30%	57.10%	7
55+	15.80%	19	0.00%	33.30%	33.30%	0.00%	33.30%	0.00%	0.00%	3
Education										
Some primary school	27.10%	59	6.70%	40.00%	6.70%	0.00%	6.70%	13.30%	26.70%	15
Finished primary school	22.60%	53	0.00%	50.00%	0.00%	0.00%	8.30%	25.00%	16.70%	12
Some secondary school	29.30%	58	0.00%	14.30%	7.10%	14.30%	0.00%	57.10%	7.10%	14
Graduated secondary school	20.70%	29	0.00%	0.00%	0.00%	0.00%	0.00%	80.00%	20.00%	5
Some college/voc. school/degree	33.30%	9	66.70%	0.00%	0.00%	33.30%	0.00%	0.00%	0.00%	3
Income										
Less than $4,999	18.20%	22	0.00%	75.00%	0.00%	0.00%	0.00%	25.00%	0.00%	4
$5,000-$9,999	35.50%	62	4.80%	38.10%	4.80%	0.00%	9.50%	28.60%	14.30%	21
$10,000-$14,999	22.70%	44	0.00%	20.00%	10.00%	0.00%	0.00%	60.00%	10.00%	10
$15,000-$19,999	20.00%	30	20.00%	20.00%	0.00%	20.00%	0.00%	0.00%	40.00%	5
$20,000-$29,999	25.00%	20	0.00%	0.00%	0.00%	20.00%	0.00%	40.00%	40.00%	5
$30,000-$39,999	20.00%	10	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1
$40,000 or more	25.00%	4	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	1

This report comes from a comprehensive survey addressing issues of access to care and occupational as well as behavioral health risk factors relevant to migrant farm workers. The purpose of this report is to promote informed discussions based on reliable data about disparities in health status and access to care among consumers, policy makers, and health service providers in order to aid public health and medical organizations in bridge gaps in services.

The Healthy People 2010 of the Public Health Department mandates the elimination of disparities in health service provision. However, in order to address health disparities, baseline information of the health needs and issues of this population must be collected in a culturally competent manner. With the devolution of government decision making to local governing bodies, it is incumbent on the local health departments to collect the data, identify gaps in care, design programs to bridge the gaps, direct public health funding to address the disparities, and adapt health services to meet the needs. This report explores the health status, behavioral risks and access to healthcare of adult Hispanic migrant farm workers. The ultimate goal of the survey is to identify disparities in health and access to care in order to aid public health and medical organizations in matching their services with identified minority health needs

In the survey, bilingual interviewers administered questions in person in the farm labor camps, a labor-intensive method necessary due to limited English proficiency of many of the workers, lack of telephones in migrant housing, and the need for face-to-face interaction to promote rapport and obtain the cooperation of the respondents. The 171-question survey was completed by 213 migrant farm workers aged 18 and older. The findings of this survey were compared with those of the 1999 Ottawa County survey, to examine the disparity of health between these two populations.

Compared with the general county population, Hispanic migrant farm workers have:

- Poorer general health status;
- Less screening for preventive health purposes, including blood pressure screening and women's screening for breast and cervical cancer;
- Differences in smoking and drinking patterns, with some positive and some negative deviations from the county-wide population;
- Poorer access to health and dental care, less insurance coverage, and lower incomes.

TABLE 29. LANGUAGE BARRIERS IN DAILY SITUATIONS

	Experience Language Barriers in Daily Situations		
	Yes	No	n
Total Participants	50.30%	49.70%	199
Gender			
Male	53.10%	46.90%	96
Female	47.60%	52.40%	103
Age			
18-24 yrs. old	47.70%	52.30%	44
25-34 yrs. old	53.30%	46.70%	60
35-44 yrs. old	51.90%	48.10%	52
45-54 yrs. old	45.80%	54.20%	24
55+	47.40%	52.60%	19
Education			
Some primary school	56.10%	43.90%	57
Finished primary school	53.80%	46.20%	52
Some secondary school	50.00%	50.00%	56
Graduated secondary school	33.30%	66.70%	27
Some college/vocational school/degree	42.90%	57.10%	7
Income			
Less than $4,999	54.50%	45.50%	22
$5,000-$9,999	55.00%	45.00%	60
$10,000-$14,999	50.00%	50.00%	44
$15,000-$19,999	53.80%	46.20%	26
$20,000-$29,999	38.90%	61.10%	18
$30,000-$39,999	40.00%	60.00%	10
$40,000 or more	50.00%	50.00%	4

Major Findings (see Table 31):

- Health screening differed among migrant workers compared with the general county population. A majority of the Latino migrant population had never had received a cholesterol test (65.2%), compared to one quarter of the general population (25%).
- More strikingly, nearly one quarter (22.9%) of the Latino migrant farm workers had never had their blood pressure checked, an extreme disparity compared to the general population (0.8%).
- Regarding women's health, the migrant farm workers had received less care. Migrant women over the age of 35 were less likely to have ever received a mammogram (55.4%) compared with the general population (84.8%). Of women 18 and older, migrant women (61.3%) were also much less likely to have ever received a clinical breast exam (compared with the general population, 96.7%). Women's health also differed significantly in the area of nutrition. While it was found that over half of migrant farm worker women (60.9%) were overweight, versus half this percentage in the general population (28.9%), fewer migrant women (25.9%) were trying to lose weight (compared with the general population, 45.7%).

TABLE 30. BEST CHILD AGES FOR PROVIDING HIV/AIDS INFORMATION

	6-12 Years	13-14 Years	15-18 Years	n
Total Participants	42.60%	52.30%	5.10%	176
Gender				
Male	52.60%	39.70%	7.70%	78
Female	34.70%	62.20%	3.10%	98
Age				
18-24 yrs. old	51.40%	45.70%	2.90%	35
25-34 yrs. old	46.60%	50.00%	3.40%	58
35-44 yrs. old	35.60%	57.80%	6.70%	45
45-54 yrs. old	26.10%	69.60%	4.30%	23
55+	50.00	35.70%	14.30%	14
Education				
Some primary school	41.30%	45.70%	13.00%	46
Finished primary school	38.60%	59.10%	2.30%	44
Some secondary school	48.10%	50.00%	1.90%	52
Graduated secondary school	40.00%	56.00%	4.00%	25
Some college/vocational school/degree	44.40%	55.60%	0.00%	9
Income				
Less than $4,999	61.90%	38.10%	0.00%	21
$5,000-$9,999	36.50%	53.80%	9.60%	52
$10,000-$14,999	44.40%	50.00%	5.60%	36
$15,000-$19,999	33.30%	63.00%	3.70%	27
$20,000-$29,999	31.60%	68.40%	0.00%	19
$30,000-$39,999	57.10%	42.90%	0.00%	7
$40,000 or more	33.30%	66.70%	0.00%	3

- Health behavior was another category addressed in each survey. One detrimental behavior twice as frequent among migrant workers (41.4%) was smoking (vs. 16.5% among the general public). Of those migrant workers who smoked, though, the daily number of cigarettes (4.89) was much lower than in the general population (16 cigarettes/day among smokers). Drinking, specifically binge drinking among men, was another health behavior where noticeable trends between the survey groups emerged. Male migrant farm workers (57.3%) participated in binge drinking activities at a rate of over twice that of the general population (23.5%). Female migrant workers (76.4%), on the other hand, were much more likely to abstain from alcohol consumption than the general population (55.6%).

- Only half (47.8%) of the migrant farm worker population had visited a dentist in the past two years, while 91.6% of the general population had visited the dentist in the last two years.

- Annual physician visits differed between the two samples, migrant workers (45.1%) having yearly visits much more rarely than the general population (75.6%). The difference in males was especially dramatic, with migrant workers (28.2%) visiting doctors half as frequently as the general male population (68%).

- Annual income per household and coverage by either health insurance or Medicaid also differ between migrants and the general population. Over half of the migrant farm worker population (67.3%) had a household income below $15,000, as opposed to the 4.9% of the general population. Additionally, only 2% of the migrant worker population had household income above $40,000, while over a third of the general population is in this category (39%). The vast majority (85%) of the migrant farm worker population has no health coverage, a major contrast with the general population, who are almost completely covered (94.4%).

TABLE 31. PREVALENCE OF PERSONAL AND OCCUPATIONAL RISK FACTORS

	% Migrant Farmworkers Ottawa County, 2001		*% Telephone Sample Ottawa County, 1999*
	%	n	%, (n= 800)
Health Screening and Health Status			
Cholesterol Never Checked	65.20	204	25.00
Ever Told Cholesterol High	20.80	72	19.00
Blood Pressure Never Checked	22.90	210	0.80
Ever Told Blood Pressure High	18.50	162	21.80
Never Had Eye Exam	50.20	213	N/A
Women's Health Screening			
Ever Had Mammogram			
Women <35 years	14.00	50	17.00
Women >35 years	55.40	56	84.80
Ever Had Clinical Breast Exam (All Women)	61.30	106	96.70
Ever Had Pap Test	78.20	110	96.00
Had Pap Test Within Past Year	69.80	86	79.10
Obesity			
Overweight	46.20	186	0.40
Men	31.90	94	31.80
Women	60.90	92	28.90
Trying to Lose Weight	25.90	212	45.70
Behavioral Risk Factors			
Ever Smoked	43.40	212	40.70
Current Smokers	41.30	92	16.50
Average # of Cigarettes	4.89 cigarettes/day		16 cigarettes/day
Abstinence from Alcohol	48.60	210	48.80
Men	18.00	100	41.90
Women	76.40	110	55.60
Drinkers Who Binge Drink	47.60	103	16.30
Men	57.30	82	23.50
Women	9.50	21	9.10
Dental			
Had Dental Visit in Last 2 Years	47.80	212	91.60
Access to Healthcare			
Visited Physician Within Past Year	45.10	213	75.70
Men	28.20	103	68.00
Women	60.90	110	83.20
No Health Insurance or Medicaid Coverage	85.00	213	5.60
Discrimination			
Ever Experienced Discrimination	26.00	208	Not Asked
Abuse			
Know Someone Who Was Abused	22.40	211	32.40

The glaring discrepancy between migrant farm workers and the general population stems from the farm workers' poor access to resources. As reported in the comparisons of household income, migrant farm workers do not have the resources to pay for health insurance and they do not receive it as a benefit on the job. The consequence is that they have few visits to doctors and dentists and low coverage by screening tests, including blood pressure checks. Many studies have shown that early screening and treatment save health care dollars; thus, extension to access to migrant farm workers may save the county money. Without some support with regard to medical coverage, problems highlighted in many of the survey categories — general health status, maintenance, and prevention, women's health, and dental health — will continue to place major strain on the health of migrant farm workers. Addressing the problem of unequal access to health care will help to improve the health of minorities in Ottawa County, and extensive research findings on other populations leads us to expect that it will also benefit the health of other population segments in the county.

Figure 1. Membership of the Ottawa County Collaborative

Ottawa County Health Department Leadership and Collaborative Member Organizations

Lead agency for the collaborative, Ottawa County Health Department

Lead staff person, Barbara Coté, RD, MSN, Community Assessment Coordinator

Other OCHD staff who also are involved in the Collaborative or who contributed to the survey of migrant farm workers include:

Judy Johnson, Acting Director, Ottawa Co. Health Dept.
Lisa Stefanovsky, Health Promotion Director
Lois Havermans, Dental Program Coordinator, Health Promotion Division
James Szejda, Environmental Health Director
Georgeanne Myers, Blood-born Pathogens
Rebecca Shupe, Work Site Wellness Program
Lisa Uganski, RD, Nutritionist
Scott VanTil, Coopersville Community Education

The Collaborative includes staff from the following organizations:

Bethany Christian Services
Buen Pastor Ministries, Inc.
Child and Family Services of Western Michigan
Child Development Services, Ottawa County, Third Reformed Church, Holland
El Centro
El Hispano News
Environmental Health Department, Ottawa County
Family Independence Agency of Ottawa County, Migrant Program
Family Independence Agency, Migrant Services, State of Michigan
Grand Valley State University Alert
Hispanic Ministry Services
Holland Community Hospital
InterCare
Life Services System
Michigan State University Extension, Ottawa County
Ottawa County Health Department
Robinson School Migrant Program
St. Francis, Holland
Telamon Corporation

Founding Members of the Ottawa County Collaborative, 2001

Barbara Coté, Coordinator, Ottawa County Public Health Department

Linnay Balk, InterCare

Martha Cerda, Telamon Corp.

Sherri Derr-Farrell, Buen Pastor Ministries, Inc., Third Reformed Church

Judy Fitzgerald, InterCare

Judy Johnson, Ottawa County Public Health

Elvira Garcia, Buen Pastor Ministries, Inc., Third Reformed Church Church

Dr. Nancy Harper, Grand Valley State University Alert

Cathy Landino, InterCare

Eleanor Lopez, Holland Community Hospital

Clara Mascorro, Child and Family Services of Western Michigan

Joel Morales, El Hispano News

Rosa Nino, El Centro

Ruth Perez, Migrant Services, Family Independence Agency

Claudio Samper, St. Francis

Kathy Schaefer, Telemon Corp.

Connie Steenwyk, Ottawa County Michigan State University Extension

Irene Ybarra, Family Independence Agency

Maria Zavala, Ottawa County Environmental Health Department of OCHD

Figure 2. Community-University Partnership Members

Community Partners

Barbara Coté, Community Health Assessment Coordinator, Ottawa County Health Dept.
Ottawa County Collaborative (see Figure 1)

Michigan State University researchers at the Julian Samora Research Institute

Isidore Flores, JSRI and Michigan Public Health Institute
Ann V. Millard, JSRI and Medical Anthropology Program
Celina Wille, JSRI and MSU Extension
Israel Cuellar, Director, JSRI

Other Cooperating Organizations

Family Independence Agency, Migrant Services, State of Michigan
Hope College

Figure 3. Phases of the Study and Progress to Date

Phase I of the study — 2001-2002

1) Coté organized weekly meetings of the Ottawa County Collaborative following the Ottawa County Summit on Racism and the initiatives decided upon there. The collaborative attended with members revolving in and out of the meetings depending on the demands of their jobs. Members who attended consistently and thus provided a steering group for the project were, in addition to Coté, Derr-Farrell (whose agency, Buen Pastor Ministries, also provided space for most of the meetings), Lopez, and Mascorro.

2) In late spring, Millard and Flores started to work with the Ottawa County Collaborative through one meeting in the county and then weekly speaker telephone meetings (supported by the Department of Anthropology, MSU), continuing through the summer, to develop the questionnaire. The process involved reviewing questionnaires provided by Coté and Millard, who requested them from other research projects and from earlier MSU projects. We also reviewed principles of questionnaire construction and information about how best to interview migrant farm workers on the basis of earlier surveys carried out by Flores and Millard. During this period, Coté conferred with specialists at the State Department of Community Health, Centers for Disease Control and Prevention, and staff at hospitals and other health departments that had carried out behavioral risk assessments, especially of Mexican Americans.

   At the weekly speaker phone meetings, Millard took minutes and sent them by e-mail to Coté, who distributed them. In the intervening periods, work by various members, especially Coté, Lopez, Mascorro, and Millard, included word processing versions of the questionnaire.

3) Wille and Mascorro translated the questionnaire into Spanish using as a basis the work done by the Ottawa County Collaborative, especially Lopez, and a previous survey from Millard and Flores.

4) Flores advised on the issue of sample size and ways to draw the sample of migrant farm workers. In this process, he used the list of farm labor camps licensed by the State of Michigan; the list was provided by Marv Johansen, Environmental Manager, Environmental Stewardship Division, Field Operations Unit, Michigan Department of Agriculture. Flores advised that 200 questionnaires were required for the purpose of comparison with the earlier behavioral risk factor survey carried out by the Ottawa County Health Department. Flores drew a random sample of the camps in the county and provided the list to Coté for use in assigning volunteers to various camps for interviews.

5) Millard secured approval from the Institutional Review Board at Michigan State University for the research protocol in regard to the rights of subjects of research projects.

6) Coté recruited volunteers to carry out interviews throughout the project. She announced the project through the newspaper and asked churches to make announcements and call for volunteers as well. She met with volunteers after church services to explain the project and sign them up. She also asked volunteers to assist in recruiting others. Coté continued to recruit and train volunteers throughout the project, as it was not possible to get enough people together for the original training sessions to carry out the number of interviews required.

7) Coté, Wille, and Millard carried out the training of the initial two groups of interviewers with assistance from Sherri Derr-Farrell and other Ottawa County Collaborative members in the early fall, 2001. Many of the interviewers were Spanish speakers or bilingual, although a few spoke only English and thus had access to relatively few migrant workers for interviews. Flores advised that any team members who were residents of migrant camps should interview people at camps other than their own to assist in maintaining confidentiality.

8) Coté carried out the pilot testing of the questionnaire and conferred with Flores on the results. Cuellar (Director of the Julian Samora Research Institute) also participated in pilot testing the questionnaire by using it with focus groups in Ingham County.

9) Throughout the survey, Coté was the project leader. She oversaw the work of volunteer interviewers from September through November, 2001. Coté coordinated the volunteers, including providing duplicated questionnaires for them to use (duplication carried out by Ottawa County Health Department), carrying out many of the visits to camps with them, continuously recruiting new volunteers through churches and other organizations, and dealing with many questions that arose in this phase of the project. She debriefed interviewers by reviewing each questionnaire and discussing various responses with them to clarify statements on the questionnaire and to ensure consistency among interviewers in the elicitation of information.

   The result of this effort was that 213 questionnaires were completed, reviewed by Coté with interviewers, and delivered to Millard.

10) Cuellar set up the coding system for many of the questionnaire items and SPSS files for the data.

11) Millard recruited honors students at Michigan State University to code and enter data in fall and spring terms, 2001-2002. The key students in this endeavor were: Andrew Poole, Professorial Assistant, and Adrienne Nassar and Melissa Alvarado (Research Assistants in spring term, supported by the Julian Samora Research Institute). They worked on this project fall and spring terms. Other students participated for one term and also provided valuable work to the project.

   To code health disorders, we used International Classification of Health Problems in Primary Care, 3rd ed. (also called ICHPPC-2-Defined; New York: Oxford University Press, 1983). This reference, an adaptation of the International Classification of Diseases (9th ed.), was prepared for use in international research on primary care. There is no later edition of the work, and we used it rather than the ICD-9 and ICD-10 because it is particularly suited for ambulatory care research and manageable for our research team.

12) Preliminary analyses were provided to the Ottawa County Health Department in the first week of April, 2002 in the form of computer files. Preliminary results were also provided in the following:

   Millard, A.V., Coté, B., & Flores, I. (2002, March). Migrant Farm Workers and Health Inequality. Paper presented at a conference, Migrant Farm Worker Research Reports, Agriculture and Natural Resources Week, Michigan State University.

   Poole, A., Coté, B., Millard, A., Nassar, A., & Alvarado, M. (2002, April). Health Survey of Latino Migrant Farmworkers in Ottawa County. Poster presented at the Spring Research Forum, Michigan State University.

Millard, Poole, Nassar, and Alvarado visited the Ottawa County Health Department in April, 2002, to meet with Barbara Coté and discuss some of the research findings in relation to health issues in the county.

13) To produce the final report, Millard worked with Mara DeLuca, Research Assistant supported by the Julian Samora Research Institute. Millard also consulted with Coté on various issues concerning the Ottawa County Collaborative, methods, and the structure of the report. DeLuca reviewed all the data that had been entered and corrected typographic errors and inconsistency in coding. She carried out the data analysis with SPSS, the transformation of results into Excel tables, and a first draft of corresponding sections of the report. Another Research Assistant, Abigail Balger, also worked on the report.

The Ottawa County Health Department provided duplication and distribution of the report.

The remaining phases of the study, pending funding, are:

Phase II

1) Provide information on the results of the study to focus groups of consumers, health care services staff, and policy makers.

2) Convene health policy makers in Ottawa County and Lansing to learn about the results and discuss the implications.

Phase III

1) Administer the Behavioral Risk Factor Survey to year-round Latino residents of the county. (This part of the study is designed as separate from Phases I and II because volunteers could not provide the time to carry out both surveys.)

Phase IV

1) Provide information on the results of the second survey to focus groups of consumers, health care services staff, and policy makers.

2) Convene health policy makers in Ottawa County and Lansing to learn about the results of the second survey and discuss the implications.

Phase V

1) Complete all data analyses and write-up.

2) Develop an analysis, "Lessons Learned" to deal with the survey process, discussions with focus groups, and decisions by health policy makers.

Figure 4. Principles of the Community-University Partnership of the Ottawa County Collaborative with the Julian Samora Research Institute and Department of Anthropology at Michigan State University

a) For each task, a specific leader is chosen, and that person consults with the others in the partnership and is responsible for carrying out the task to its completion.

b) Until funding for the project is obtained, the volunteers are understood to have other obligations that take priority over the work for this project. The result is that the work force for the project has fluctuated not only with the needs of the project but also in tune with the other obligations of the volunteers. The Ottawa County Health Department has invested considerable time from the Community Health Assessment Coordinator, Barbara Coté, in this project. She has also invested considerable unpaid time in the project, as have all of the volunteers, who include everyone else on the project.

c) Generally, the Ottawa County Collaborative is responsible for orienting researchers to the county and the local health care and social service agencies. The Collaborative is also responsible for recruiting volunteers and for participating in policy discussions among health care agencies in the county.

   The Ottawa County Health Department has taken responsibility for calling meetings, carrying through on decisions, coordinating the Ottawa County Collaborative, pilot testing the survey, duplication of questionnaires, overseeing data collection, debriefing interviewers in regard to each questionnaire, and providing the questionnaires to the Julian Samora Research Institute.

   Future involvement of the Ottawa County Collaborative would require funding to pay those working to collect data, including interviewers and agency staff devoting substantial effort to the project. Although it was possible to carry out the 2001 survey with volunteers, the effort involved many hours of work that exhausted many, and the Collaborative is obligated to seek funding before making a further effort at data collection.

d) Generally, the Julian Samora Research Institute is responsible for orienting the Collaborative members to research in social science, on health, and on low-income Latinos, including migrant farm workers and their occupational health issues. JSRI researchers, specifically Millard, volunteered for the following concerning migrant farm workers: assistance in designing questions to be used in collecting data (with Flores); securing approval from an Institutional Review Board concerning the rights of human subjects; assistance in training interviewers (with Wille); data coding, entry, and proofreading (with Cuellar helping to set up SPSS formatting for data); data analysis; and writing the final report (using basic descriptive statistics). Further data analysis is to be carried out in the fall and spring of 2002-2003 at Michigan State University by: Andrew Poole, Adrienne Nassar, and possibly, Melissa Alvarado. They will carry out more complex statistical analyses beyond the scope of the descriptive analysis in the final report.

   Future involvement of JSRI researchers would be streamlined as follows: they would receive a list of areas to be addressed on a questionnaire but they would not design questionnaire items by committee, and sufficient time would have to be allotted to pilot test the questions before the start of data collection. Furthermore, although the researchers often volunteer time for projects to get them started, they have now invested considerably more time in this project than usual. Therefore, securing funding before proceeding further would be important for JSRI researchers.

e) Funding is being sought for completion of the current tasks and for:

- focus groups to discuss the results of the survey with migrant farm workers,
- meetings to discuss the results of the survey and focus groups with policy makers,
- a survey of Latino year-round residents of the county,
- focus groups to address the results of that survey,
- meetings to discuss the results of the survey and focus groups with policy makers, and
- final analysis to provide "Lessons Learned" from the surveys, focus groups, and policy discussions.

Currently, there are no volunteers to take on those tasks. The funding would pay for the following:

- Personnel (including significant portions of the salaries of Coté and JSRI researchers to coordinate the project; focus group site coordinators and stipends for participants; and for the second survey, interviewers, data coders, data entry, data checking, data analysis, and writing up the results, and potentially, further grant writing);

- Supplies and services (including partially transcribing focus group discussions, duplicating questionnaires, computer supplies, duplication of the final report, distribution of the final report, and phone, mail, and fax charges);

- Travel (including mileage for Collaborative members and JSRI researchers and for interviewers and focus group site coordinators); and

- Other expenses (including stipends or gifts for interviewees).

To date, the Julian Samora Research Institute has provided funding to assist with data entry, proofreading, and analysis of the migrant farm worker survey; however, the extent of the funding is not sufficient to complete this task. Coté has advised on each step of the analysis and consulted on the format and contents of the final report. MSU researchers recruited volunteer students to code, enter, and check data.

Figure 5. Surveys Consulted to Develop Ottawa County's Hispanic-Latino Health Survey

Alderete, Ethel, William A. Vega, Bohdan Kolody, and Sergio Aguilar-Gaxiola. (1999). Depressive symptomatology: prevalence and psychosocial risk factors among Mexican migrant farmworkers in California. *Journal of Community Psychology* 27(4): 457-471.

Baer, Roberta D. (1996). Health and mental health among Mexican American migrants: implications for survey research. *Human Organization* 55(1): 58-66.

Behavioral Sciences, Center for Health Promotion and Prevention Research, University of Texas Health Science Center at Houston. (2001) *National Center for Farmworker Health Questionnaire* (provided by Maria E. Fernandez)

Faucett, Julia et al. (1999). *Spanish Health Questionnaire.* Berkeley, CA: University of California, Department of Agricultural Ergonomics and University of California, San Francisco.

Health Development Agency, Canada; University of Surrey; and the Social Survey Division of the Office of National Statistics. *Social capital module for the 2000/2001 General Household Survey.*

Julian Samora Research Institute, Michigan State University; University of Texas-Pan-American; Michigan Interagency Migrant Services Committee, State of Michigan; Union de Campesinos del Valle Sur de Texas, MSU Social Capital Initiative. (2001). *Migrant Farm Worker Survey* (Encuesta Trabajadores Agrícolas Migrantes) (provided by Celina Wille).

Kendall, Olson, and Ed Frongillo. (1996). Relationship of hunger and food insecurity to food availability and consumption. *Journal of the American Dietetic Association* 96: 1019-1024.

Kettering and Butzel Health Initiative; Center for Community Based Health Systems; Greater Detroit Area Health Council. (1994). *Health Access Survey.* Detroit.

LIFT Program, Holland Community Hospital. *Personal Wellness Profile, Concise Edition* (provided by Eleanor Lopez).

Lightnall, David, Villarejo, Don, et al. (2000). Design rationale: to use questions from the National Agricultural Workers Survey (NAWS) for comparability. *In California Hired Farm Worker Health Survey.*

Ochoa Bogue, Hilda, McCormack Brown, Kelli Parsons, Nancy P. and Kathy Fischer. (1993). Health care needs of Mexican migrant farmworkers in rural Illinois: an Exploratory Study. *The Health Educator* (3): 27-32 (Entrevista de Salud provided by the National Center for Farmworker Health.).

Ottawa County Behavioral Risk Factor Survey, 1999.

Pesticide Knowledge Survey. (1997). East Lansing, MI: Michigan State University (provided by Ann Millard and Isidore Flores).

Survey Research Group, Cancer Surveillance Section. (2000) *Monterey County Behavioral Risk Factor Survey, Impacto 2* (provided by Bonnie Davis).

U.S. Dept. of Health and Human Services, Hispanic Health and Nutrition Examination Survey.

U.S. Department of Labor. (2000). Findings from the National Agricultural Workers Survey (NAWS) 1997-1998. Research Report No. 8. Washington, DC: Office of Program Economics. (provided by Daniel Carroll).

Appendix A: Background on This Research

This project grew out of a collaboration of agencies, community members, and researchers focused on Latino health in Ottawa County. The group formed with the following objectives: (1) to assess health care needs of Latinos (mainly Mexican Americans and Mexicans) in the county and (2) to engage in policy discussions to design ways to meet their needs. Our survey was designed for comparison with an earlier survey, the Ottawa County Behavioral Risk Factor Survey (1999). The earlier survey had a comprehensive scope but underrepresented minorities. Respondents included only 34 non-whites out of 792 people (4.3%), whereas 8.0% of the county population is Latino, numbering 19,393 including migrant farm workers, making them the largest minority racial/ethnic group in the county (Census 2000 and State of Michigan). An explanation for the underrepresentation of minorities could have been related to the sampling method in the earlier survey. The method involved interviews over the phone in English, and due to the lack of telephones in migrant housing and limited English proficiency, migrant farm workers would have been excluded. The phone survey also shows an upward bias in the distribution of wealth; that is, on average, respondents were wealthier than the county population as a whole as characterized by census data, as pointed out in the original report. The bias probably reflects the participation of adults who were home during business hours, that is, housewives not working outside the home, who tend to live in better-off households. All of these factors contributed to the underrepresentation of Latinos in the survey.

Therefore, to make a more accurate assessment of Latino health, a two-phase study has been planned by the Ottawa County Collaborative. The research findings in the present report deal with residents of farm labor camps in the county, who are Latino migrant farm workers. This was the first group of Latinos to be studied because of the unique set of survey methods required to gather the data. A future study of resident Latinos is also planned to complete data collection on the county's Latino population.

As the county's agricultural sector is heavily dependent on migrant farm workers to provide labor in fields, orchards, greenhouses, and agricultural packing houses, this report involves both the economic health and the health of the work force of the county. The aspects of public health addressed here, discussed further in the next section, include access of the working poor to primary health care and the corresponding health benefits provided to the rest of the population by improving the epidemiological environment of the county. Safeguarding the health of the population by addressing basic health needs all of the people is an accepted, basic principle of public health. Such encompassing prevention is necessary because, "germs don't discriminate"; contagious disease spreads easily through all sectors of a population. Prevention of communicable disease is far cheaper than treatment and far more effective in safeguarding the health of all population members.

For some years, the staff at various health service organizations have expressed concerns about health care accessibility and quality for Latino migrant farm and food processing workers. These workers are crucial to the productivity of the agricultural sector in the county, but staff at various organizations reported that they generally lack medical and dental insurance; and in comparison with the general population, have poorer health status. At the 2001 Ottawa County Summit on Racism, these concerns were raised, questioning the adequacy of health services from the county, state, and non-governmental organizations. In addition, with the county work force becoming increasingly diverse, there has also been concern that Latinos in the county are not well understood by health care providers and other organizations charged with responsibilities to the general county population. This investigation is designed to find out whether these observations are true and, if so, to provide information for discussion by county health policy makers.

The timing of this project involves the engagement of the Ottawa County Health Department with two forces that are changing our nation. The first is "globalization," the increase in trade and travel across international boundaries. In the case of Ottawa County, globalization includes the recruitment if migrants from South Texas, Florida, and Mexico to the county as farm workers and as permanent residents to carry out key functions in economic production. Holland, Michigan, leads much of the state in regard to the permanent settlement of Latino laborers involved in agricultural work and food processing. In addition, there is also a significant movement of Latinos in this county into the professional work force and other types of white-collar employment. Some of the white-collar Latinos grew up in Ottawa County, as children of former migrant farm workers. Others are more recent arrivals, representing communities both from elsewhere in the U.S. as well as from various countries in Latin America and the Caribbean.

The second major force that stimulated this project is the devolution of government decision making to local bodies, increasing the responsibility of county health departments for the health of the public. This process of devolution requires county health departments to take on a greater role in decision-making, program design, directing public health funds, and adapting to new situations as they arise. Due to this increased responsibility within the community, the Ottawa County Health Department gathered information for a Behavioral Risk Factor Survey in 1999. This study was conducted no only to access the present needs of the community, but also to cite trends posing significant impacts upon residents in the future. Despite the survey's under-representation of minorities within the county's population, major differences in responses between the white citizens and the ethnic minorities were cited. Overall, compared to the whites, these minorities consistently had lifestyles subjecting them to higher Behavioral Risk Factors. While the survey briefly notes these differences in the conclusion, it more importantly draws attention to the need for a more focused investigation into the Behavioral Risk Factors affecting the ethnic minority base within the county. This survey is part of a new face of public health involving research carried out by a community-university partnership in support of the new responsibilities of the Ottawa County Health Department and out of interests of researchers in working with communities to solve problems.

Health Disparity and National Public Health Policy

This investigation is the first step in an effort to address health disparity in Ottawa County. Researching and reducing health disparity is one of the major goals of the Centers for Disease Control and Prevention and the National Institutes of Health as envisioned in the policies of "Health for All by the Year 2010." Health disparity is currently receiving attention from researchers. Various studies over the last 20 years have revealed disparities in health in the United States and abroad (i.e., differences in health status and mortality rates among different segments of the population according to age, gender, ethnicity, income, and other systematic social differences). Various studies of health disparities have found that greater disparity increases the risk of disease for all members of a population. As noted earlier in this report, some of the reasons are well understood; other reasons are still under investigation, however, and this project may contribute to that research.

Appendix B: Ottawa County Health Department Leadership and Community University Partnership

The leadership of this project came from the Ottawa County Health Department. Barbara Coté, as the department's Community Assessment Coordinator, provided leadership and coordination for the group. She first worked with agency and health care professionals from 19 organizations in the county to form the Ottawa County Collaborative in 2001 (see Figure 1).

As the Ottawa County Collaborative developed a plan to carry out a survey on the health of Hispanic people in the county, Coté contacted researchers at Michigan State University and other organizations to seek advice. The decision was to carry out a survey of migrant farm workers first and a survey of year-round residents second. This project is part of the new Migrant Health Initiative of the Julian Samora Research Institute, Michigan State University. This is one of the first projects undertaken in the initiative, planned for the coming five years, to provide basic data on Latino health for medical care providers, policy makers, and researchers. These surveys were to be complemented by focus groups with health service providers and medical care policy makers in the county to discuss the results of the surveys and their health care policy and medical service implications.

Michigan State University researchers joined the project and began to form a Community-University Partnership (see Figure 2). Figure 3 shows accomplishments of the project, division of labor, and remaining plan for addressing Latino health issues in Ottawa County.

Organization of the Community-University Partnership

As is true of many of the emerging community-university partnerships across the United States, this one has gradually developed a set of principles and procedures to address the issues raised so far during the project. The Community-University partnership currently works on the principles shown in Figure 4. Possibly because the partnership is a long-distance relationship and involves many more organizations than most, our organizational principles are more detailed and concrete than those of other partnerships contacted by Millard. In addition, the need to secure funding means that the organization needs to be able to move quickly, and these principles should assist us in doing so.

Appendix C: Methods, Sampling, and Other Issues

Definition of the Population in this Research and of "Latino" and "Hispanic."

For the purpose of this report, "Latino" and "Hispanic" are used interchangeably to describe an ethnic group who are the focus of this investigation. "Latino" is a term widely used by researchers to designate people of descent from Spanish-speaking ancestors in the U.S. and abroad. "Hispanic" is an older term codified by the U.S. Census, under federal regulations, to designate the same group.

Additionally, people in the general public use these terms in other ways, as is evident in the title of the survey instrument in this report, the Hispanic-Latino Health Survey, Ottawa County 2001. As many have noted, the Latino ethnic group is highly heterogeneous in culture and history — actually, it is composed of many ethnic subgroups of different national and cultural origins; however the people under study in by the Ottawa County Collaborative are nearly all either Mexican Americans or immigrants from Mexico.

It is important to add here that not all Mexican Americans are immigrants, as many trace their ancestry to areas of the Southwestern United States that were already populated by Europeans when the Pilgrims reached Plymouth Rock in Massachusetts. Latinos have formed part of the "nation of immigrants" in the United States since its beginning, and their movement into small towns in the Midwest intensified in the 1990s with their recruitment for jobs in small factories. Holland has a long-term Latino population, and in the last decade, it has grown considerably.

Whereas most of the Latinos in the county work as agricultural laborers and in food processing plants, there is also a small percentage of the population with professional jobs, as is particularly evident in the membership of the Ottawa County Collaborative. The Latino population of the county has a wide distribution of wealth and includes a broad representation of immigrants from various parts of Latin America and the Caribbean. This report presents the results of a survey with migrant farm workers, the segment of the Latino population hypothesized to have the least health care insurance and the greatest health problems.

Interview Instrument

The Hispanic-Latino Health Survey consisted of questions taken from the Michigan Behavioral Risk Factor Survey, developed by the Centers for Disease Control and Prevention, and used earlier in the Ottawa County Behavioral Risk Factor Survey of 1999. To make the survey appropriate for the migrant farm workers, we also included questions from behavioral risk factor surveys of low-income Mexican Americans elsewhere in the United States. In addition, because of the aims of the Ottawa County Collaborative, we included additional questions beyond those dealing with health behavior to measure access to medical care, dental care, and health insurance. We also collected information on sociodemographic and other health characteristics to assist us in describing the population. Several items were added or edited to address migrant farm workers specifically. Figure 5 shows the surveys that we consulted in designing our instrument.

The survey is composed of several general categories of questions, including:

- social and demographic information including socioeconomic information, acculturation, and experiences with discrimination
- personal health
- access to health care
- dental care
- occupational health
- nutrition
- risk behaviors
- preventative/reproductive health
- abuse

The survey included 171 possible questions (some were to be asked only if a respondent had answered a previous question affirmatively) (see Appendix D).

Institutional Review Board Approval

The questionnaire and interview protocols were reviewed and approved by the Institutional Review Board of Michigan State University, the University Committee on Research Involving Human Subjects.

Data Collection Procedures

For our survey, we trained bilingual interviewers, and they administered questionnaires in person because migrant farm workers generally speak little English, lack telephones, and are unfamiliar with questionnaires. Manuel Gonzalez, head of Migrant Services for the State of Michigan Family Independence Agency, states that with low-income Latinos, a survey requires bilingual interviewers go door to door to gain good cooperation. Even for those with telephones, he states, cooperation with a phone survey will not be good. Our survey of migrant farm workers therefore involved an "opportunity sample," that is, a sample of people from a number of different farm labor camps whom we approached by going to the camp and inviting participation on the spot.

Data Analysis

The Julian Samora Research Institute used the Statistical Package for the Social Sciences (SPSS) to organize and analyze the data. Categorization techniques and standards, as well as reporting procedures, were generally consistent with those used by the Ottawa County Health Department for the Behavioral Risk Factor Study. In some areas, the Hispanic-Latino Health Survey categories for migrant farm workers differ from those in the earlier survey because farm workers are considerably younger, less educated, and poorer than the population in the county at large.

As in the Behavioral Risk Factor Study, respondents who refused to answer a question or did not know the answer to a specific question were excluded from the computation of percentages in the data table for the appropriate question. In the current study, the tables show the number of valid responses for each question, whereas the earlier survey did not (the earlier survey simply lists the total number in a given category, for example, females, who were survey respondents). Therefore, we are unable to compare responses across the two surveys. The current report will allow statistical comparisons with other surveys, though.

As in the Ottawa County Behavioral Risk Factor Survey of 1999, results for each question are reported according to relevant demographic characteristics of respondents, including gender, age, education level and annual household income.

HISPANIC-LATINO HEALTH SURVEY, OTTAWA COUNTY, MICHIGAN
September 2001

CONSENT SCRIPT

All interviews to be with people at least 18 years of age.

HELLO. I'm _____ *(interviewer's name)* _____

I am cooperating with the Department of Health of Ottawa County in Holland. We're doing a survey about the health and medical needs of Mexican and Latino people who live in Ottawa County.

I invite you to participate in our survey. We would like to ask you questions for about 20 to 40 minutes.

We will add up responses from many interviews to describe the health of the Mexican and Latino population in this county. For accuracy, you are asked to answer questions as truly as you can. Giving answers that are gracious or polite will not give us a true picture of medical needs.

Here are your rights in all surveys, including this one: Your participation is voluntary, and you can stop at any time. Your decision about participating in this survey will not affect your eligibility for benefits from any organization. All information that you give me is confidential. That means I will not tell anyone what you say in a manner that could identify you. I will protect your privacy to the maximum extent possible.

Are you willing to participate in this survey?

Thank you. We appreciate your help. I will leave this form with you and if you have any questions about this survey, feel free to contact the persons listed here:

Dr. Ann Millard, Julian Samora Research Institute, Michigan State University (517) 353-9772, or Barbara Coté, Ottawa County Department of Public Health, (616) 393-5775. If you have questions about your rights as survey participants, please contact Dr. Ashir Kumar, M.D., University Committee on Research Involving Human Subjects, Michigan State University, (517) 355-2180.

INTERVIEWER'S NOTES

After the interview, the interviewer is to answer each of these questions.

1. *Time interview began* _____

2. *Time interview ended* _____
(Copy 1 and 2 from questionnaire)

3. INTERVIEWER'S NAME: _____

4. DATE_____/_____/_____

5. SITE WHERE ADMINISTERED: (Circle one)

   1= Farm labor camp_____(Name of camp)
   2= Respondent's year-round home _____
   3= At work. Name of work place _____
   4= At a service organization (Head Start, FIA, etc.) Name of organization _____
   5= Other (specify): _____

6. COUNTY: Ottawa

7. STATE: Michigan

8. GENDER OF RESPONDENT (circle one) 1=Male 2=Female

9. RESPONDENT'S ETHNICITY *(Circle all that apply)*
   1= Hispanic origin-Latino
   2= Black or African American
   3= White
   4= Native American
   5= Asian American
   6= Other

10. LANGUAGE OF QUESTIONNAIRE 1=English 2=Spanish 3=Other

11. INTERVIEWER'S RATING OF SUCCESS OF INTERVIEW (circle one)
    1 2 3 4 5
least successful most successful

12. INTERVIEWER'S COMMENTS
    (impressions of cooperation of participant, clarity, ease of answering, forthrightness, etc.)

_____

_____

_____

_____

_____

*Time interview began (including informed consent*_____)

QUESTIONNAIRE

Interviewer should read aloud the passages in bold, not those in italics.
*The sections demarcated by *** are only for specific respondents.*
Please circle appropriate responses.

13. Are you living in Ottawa County now? 2=Yes 1=No

14. (If yes,)Are you living in Ottawa County year-round? 1=Yes 2=No

15. (If no,)Are you living in Ottawa County seasonally? 1=Yes 2=No

If the respondent says no, to both questions, make sure the person is not even living in the county seasonally, i.e., living in a migrant camp in the county, and say:
We are only interviewing people living in this county.
We cannot include you in the survey, but thanks for your time.

16. How many years have you lived in this county? _____years

17. What is your age? _____years

If the person is less than 18 years of age, say:
We are only interviewing people who are at least 18 years old.
We cannot include you in the survey, but thanks for your time.

18. How is your health now? First tell me if it is it OK or not OK. 1= OK 2= Not OK

19. What health problems do you have?
(After each response, ask, "**Do you have any other problem?**" until there is no further response)

_____

_____

_____

_____

20. Are you being treated now? 1=Yes 2=No

21. Have you ever had to go to the hospital emergency room? 1=Yes 2=No

22. When was the last time? _____ (year)

23. What for? _____
_____

24. How many colds have you had in the last year? _____

25. Have you had a TB (tine) test? 1=Yes 2=No 3=Don't Know

26. Have you had problems with your hearing? 1=Yes 2=No

27. Have you had problems with your eyes or vision (seeing)? 1=Yes 2=No

28. Have you ever had your eyes examined? 1=Yes 2=No

29. (If yes, ask) How long has it been since you have had your eyes examined? (circle one)
    1= Within the past year (0-12 months)
    2= 1-2 years ago (13-24 months)
    3= 2-5 years ago (25-60 months)
    4= More than 5 years ago (61+ months)
    5= Never

In the last month, have you had ongoing problems with any of the following:

30. Sleeping? 1=Yes 2=No

31. Eating? 1=Yes 2=No

32. Less ability to concentrate? 1=Yes 2=No

33. Your energy level? 1=Yes 2=No

34. Stress or emotional problems? 1=Yes 2=No

35. (If yes to any 30-34, ask) **Have you looked for help with these problems?** 1=Yes 2=No

Now I am going to read you a list of health problems.
Please tell me whether you have ever had any of these problems.

36. Stroke (a blood clot in the brain) 1=Yes 2=No

37. Allergy (skin rash, sneezing) 1=Yes 2=No

38. Anemia (low iron in blood) 1=Yes 2=No

39. Arthritis (sore, swollen joints) 1=Yes 2=No

40. Asthma (wheezing, struggling for air) 1=Yes 2=No

41. Heart trouble 1=Yes 2=No

42. Cancer 1=Yes 2=No

43. Hepatitis (liver disease) 1=Yes 2=No

44. Other major ongoing health problems _____

_____

45. Do you have a doctor in this area who usually sees you and knows about your history and health situation? 1=Yes 2=No

46. During the past 12 months, how many times did you go to a clinic or doctor's office? _____ times

47. (If zero, ask) Why haven't you visited a clinic or doctor's office? *(Do not read, circle all that apply)*
10= Did not know where to go
11= Language barriers (Didn't understand. no Hispanic Dr./staff)
12= Don't have a regular doctor
13= No insurance
14= Cost too much (for co-pay or sliding scale fee)
15= Lack of doctors who provide services to Medicaid patient
16= Lack of transportation
17= Lack of time (had to work)
18= Embarrassment, fear of being reported to the immigration service
19= Not sick
20= Other: _____

48. Do you have health insurance? 1=Yes 2=No

49. *(If yes, ask)* Name of insurance: _____

50. How long has it been since you last visited a dentist or dental clinic?
(Include visits to dental specialists such as orthodontists, circle response)
1= Within the past year (0-12 months)
2= 1-2 years ago (13-24 months)
3= 2-5 years ago (25-60 months)
4= More than 5 years ago (61+ months)
5= Never

(If not within the past year, ask)
51. Why didn't you go in the last year? *(circle all that apply)*
11= Did not know it was recommended.
12= Don't need it.
13= Don't want to know.
14= Don't have a regular doctor
15= Doctor didn't recommend it.
16= Embarrassment, fear
17= Cost too much (for co-pay or sliding scale fee)
18= No insurance
19= Lack of time (have to work/had to wait too long)
20= Lack of transportation
21= Lack of doctors who provide services to Medicaid patients
22= Other (specify) _____

52. In the past year, have you had a toothache, bleeding gums, sore jaw, or painful aching in your mouth?
1=Yes 2=No

(If yes, ask) **Has this condition ever:**

53. Caused you to miss work? 1=Yes 2=No

54. Disrupted your daily life? 1=Yes 2=No

55. Caused difficulty in speaking? 1=Yes 2=No

56. Caused you difficulty in eating? 1=Yes 2=No

57. How many of your permanent teeth have been removed because of tooth decay, infection, or gum disease? Do not include teeth lost for other reasons, such as injury or orthodontics.
_____ number of teeth

58. Do you drive? 1=Yes 2=No

(If yes, ask)
59. Do you own a car or truck? 1=Yes 2=No

60. Do you have a job now? 1=Yes 2=No

(If yes, ask)
What kind of work do you do? *(circle one or more for current work)*

61. Blue Collar
1= bricklayer or mason
2= carpenter
3= child care worker
4= construction worker
5= farm worker
6= food processing worker
7= gardener, landscaping
8= greenhouse worker
9= mechanic
10= other factory work

62. Service work
1= hairdresser or beautician
2= restaurant worker
3= teacher's aide
4=direct care provider retail selling
5= retail service
6= telephone sales
7= other_____

63. White Collar
    1= business owner
    2= doctor or lawyer
    3= secretary
    4= staff in social services or health care agency
    6= teacher
    7= manager/administrator
    8= other_____

64. Other_____
    (Name of organization, position, and job description)

65. On average, how many hours per week do you work? ____-----___ hours/week

66. At your current job, do you drive or operate machinery? (tractor, pickup truck, seeder, harvester, combine, lift)? 1=Yes 2=No

67. Do you currently have pain in your lower back? 1=Yes 2=No

68. Have you had any lower back pain in the last 12 months? 1=Yes 2=No

(If yes to 67 or 68, ask)
69. Have you ever treated your lower back pain yourself or gotten treatment for it? 1=Yes 2=No

(If yes to 68 or 69, ask)
70. Have you ever cut back on work because of lower back problems? 1=Yes 2=No

Questions 71 - 82 Are For Migrant Farm Workers Only

71. In the past 12 months, how many months were you in Michigan? _____ months

72. What crops are you working on this season? *(List)* _____
_____
_____

73. How many years have you been coming to Michigan? _____ no. of years

How many people in your household work in the fields?

74. _____ adults including yourself, if you work in the fields

75. _____children under age 18

76. Does your employer give you a place to live? 1=Yes 2=No

77. Are pesticides used where you work?
By pesticides we mean chemicals that kill bugs or weeds to stop plant diseases.
1=Yes 2=No 3=Don't Know

(If yes, ask)

78. Have you been told about when to enter the field after pesticides have been applied?
1=Yes 2=No

79. Have you ever been sprayed with pesticide while you were working in the fields?
1=Yes 2=No

80. Have you ever had burning eyes, cough, nausea, or skin rash after being in contact with pesticides?
1=Yes 2=No

(If yes, ask)

81. Did you report being ill to a migrant clinic or anyone else?
1=Yes 2=No

Question 82 Is For All Respondents

82. How concerned are you about the effects of pesticides on yourself or your family, including children? (circle one)
1= not at all 3= moderately
2= a little 4= extremely

Physical activity is defined for the purposes of this questionnaire as activity that is heavy enough to make you breathe rapidly and make your heart beat faster while you are doing it.

83. Which of the following best describes the level of physical activity that you do at work?
(If respondent has multiple current jobs, include all current jobs. Ignore all past jobs, even from this year.)
1= none 3= a moderate amount
2= a little 4= a whole lot

84. Would you describe your physical activity as mostly sitting or standing, mostly walking, or mostly heavy labor and physically demanding work?
1= Mostly sitting or standing
2= Mostly walking
3= Mostly heavy labor and physically demanding work

There are three categories of physical activity – light, moderate and vigorous.
I will ask you about vigorous activities, those that increase your breathing and heart rate.
Think about the physical activity that you did either at work or at home.

85. During the past week, did you do vigorous activities for at least 30 minutes at a time such as jogging or gardening? 1=Yes 2=No

86. (If yes, ask) How many days in the past week did you do at least 30 minutes of vigorous physical activity? _____days

The Following Questions are For All Respondents

87. Yesterday how much fruit did you eat, such as oranges, bananas, blueberries, and apples?
_____fruits (i.e., the number of pieces or servings)

88. Yesterday how many vegetables did you eat, such as tomatoes, squash, chilis, potatoes and carrots?
_____vegetables (i.e., the number of pieces or servings)

89. Do you usually eat one or more servings of fried foods every day (such as fried eggs, fried rice, fried chicken, French fries, or refried beans)?
1=Yes 2=No

90. In the past week, how many times did you eat a meal from a fast food restaurant like McDonald's, Taco Bell, Burger King, Pizza Hut, or KFC? _____

91. How much do you weigh now? _____pounds _____kilos *(circle one)*

92. How tall are you? _____feet/inches _____ meters/cm. *(circle one)*

93. Are you now trying to lose weight? 1=Yes 2=No

If so, are you:

94. eating less sugar, cholesterol and fat? 1=Yes 2=No

95. eating more fruits and vegetables? 1=Yes 2=No

96. eating fewer calories or less food? 1=Yes 2=No

97. increasing physical activity? 1=Yes 2=No

This next question is about cholesterol, which is a fatty substance found in the blood that can clog arteries.

98. Have you ever had your blood tested for high cholesterol? 1=Yes 2=No 3=Don't Know

(If yes, ask)
99. Have you been told that you have high cholesterol? 1=Yes 2=No 3=Don't Know

(If yes, ask)
100. Are you taking medicine to lower your blood cholesterol? 1=Yes 2=No

101. Have you ever been told that you have diabetes, a condition in which your body cannot regulate its sugar levels normally? *(If the respondent is confused, say, sometimes called sugar diabetes or high blood sugar.)*
1=Yes 2=No 3=Don't Know

(If yes, ask)
102. How old were you when you were first told you had diabetes? ____ years

103. To control your diabetes, are you taking medication? 1=Yes 2=No

104. Do you take insulin for your diabetes? 1=Yes 2=No

105. Have you ever had your blood pressure checked? 1=Yes 2=No

(If yes, ask)
106. About how long has it been since you last had your blood pressure taken?
(Interviewer: a blood pressure machine in the pharmacy does not count.)

1= Within the past year (0-12 months)
2= 1-2 years ago (13-24 months)
3= 2-5 years ago (25-60 months)
4= More than 5 years ago (61+ months)
5= never
6= Don't know/not sure

107. Have you ever been told you have high blood pressure? 1=Yes 2=No 3=Don't Know

(If yes, ask)
108. Is any medicine currently prescribed for your high blood pressure? 1=Yes 2=No

(If yes, ask)
109. How often do you take the medicine?
1= All of the time
2= Most of the time
3= Occasionally or sometimes
4= Never

(If not all the time, ask)
110. Why don't you take it all the time?

111. Have you ever smoked? 1=Yes 2=No

112. Do you now smoke cigarettes? 1=Yes 2=No

(If yes, ask)
113. How many cigarettes do you usually smoke per day? ____No./day

114. Does ANYONE ever smoke INSIDE your home? 1=Yes 2=No

Now I'd like to ask you about your use of beer, wine, wine coolers, cocktails, and liquor, such as tequila, vodka, gin, rum, or whiskey, — all kinds of alcoholic beverages that people drink at meals, special occasions, or whenever.

115. Do you drink alcoholic beverages?
1= Often
2= Occasionally
3= Rarely
4= Never

(If yes, ask)
116. When you drink, how many drinks do you consume? _____ (1 six–pack=6 drinks)

117. At what age do you think it is acceptable to start drinking? _____years old.

118. Do you think substance abuse is a serious problem for people you know?
("Substance abuse" here refers to cigarettes, alcohol, and any kind of drugs, legal or illegal.)
1= No
2= A little problem
3= A moderate problem
4= A big problem

*****The Following Questions are for Women Only*****
The next questions concern women's health

119. At what age did you start your menstruation or period? _____ years old

120. Are you in a situation where you could become pregnant (i.e., sexually active?)
1=Yes 2=No 3=Don't Know/Not Sure

(If yes, ask)
121. Do you or your partner use birth control? 1=Always 2= Sometimes 3=Never

(If ever, ask)
122. What type of birth control? *(Circle all that apply)*
1= Birth control pill
2= Birth control shot
3= Condoms
4= Diaphragm
5= IUD (intrauterine device)
6= Rhythm method
7= Sterilization of one partner

123. Have you ever been pregnant? 1=Yes 2=No

*****The Following Questions Are For Women Who Have Been Pregnant*****

124. Have you ever been diagnosed with diabetes while pregnant (gestational diabetes)?
1=Yes 2=No

125. At what age was your first pregnancy? _____age 1= Don't know/Not Sure

126. How many pregnancies have you had? _____

127. How many live births? _____

128. How many children do you have who are currently living _____

129. How old are they? _____

(If she has any children under 18 years, ask)
130. Do you have any health insurance for your child(ren) such as MI Child or Medicaid?
1=Yes 2=No

(If yes, ask)
131. Which insurance? _____

132. The last time you were expecting a baby, how soon did you see a doctor or midwife?
1= Within the first 3 months
2= In the first 6 months
3= In the last 3 months of pregnancy
4= At the baby's birth (no prenatal care)
5= None of the above

The last time you were expecting a baby, did you:

133. Smoke 1=Yes 2=No 3=Don't Know

134. Drink alcohol 1=Yes 2=No 3=Don't Know

135. Take vitamins 1=Yes 2=No 3=Don't Know

*****The Following Questions Are For All Women*****

Have you ever had any of the following?

136. General checkup or physical exam?
1=Yes 2=No 3=I don't know 4=I don't know what it is

137. Clinical breast exam?
1=Yes 2=No 3=I don't know 4=I don't know what it is

138. Mammogram? 1=Yes 2=No 3=I don't know 4=I don't know what it is

139. Breast self-exam? 1=Yes 2=No 3=I don't know 4=I don't know what it is

(If yes to self-exam, ask)
140. Do you do monthly breast self-exams? 1=Yes 2=No

A Pap smear is when a doctor or nurse takes a sample from the cervix during a pelvic exam to check for cancer.

141. Have you ever had a Pap smear? 1=Yes 2=No

(If yes, ask)
142. How long has it been since your last Pap smear?
1= A year or less
2= Between 1 and 2 years
3= Between 3 and 5 years
4= More than 5 years
5= Don't know or not sure

The Following Questions are for Men
Who are at Least 40 Years Old

143. A digital rectal exam is when a doctor or other health professional, to check for cancer, inserts a finger in the rectum. Have you ever had a digital rectal exam? 1=Yes 2=No

144. A blood test to check for prostate cancer is called a PSA test. Have you ever had a PSA test?
1=Yes 2=No 3=Don't Know

(If yes, ask)

145. Have you ever been told that your PSA is high? 1=Yes 2=No 3=Don't Know

The Following Questions are for All Respondents

146. What is the highest year in school that you have COMPLETED?
0 1 2 3 4 5 6 7 8 9 10 11 12 (finished high school)
13 14 (finished junior college)
15. 16 (finished college)

147. Do you have other education or training?
1= GED
2= Vocational or technical school diploma
3= Post-college (Specify) _____
4= Other (Specify)_____

148. In which country did you receive most of your schooling?
1=U.S. 2=Mexico 3=Other_____

149. What is your marital status?
(Interviewer: An unmarried couple is a man and woman living as a married couple but without the benefit a marriage.)
1= Single 4= Widowed
2= Married 5= Separated
3= Divorced 6= Member of an unmarried couple or never married

150. How many family members live with you? _____ people

151. Where are you living now? *(Circle only one answer)*
1= Farm labor camp
2= Apartment (not at labor camp)
3= Condominium (not at labor camp)
4= House (not at labor camp)
5= Trailer (not at labor camp)
6= Other_____

152. If you had a child in school, at what age would you think he or she should begin AIDS education?
1= elementary school age (6 to 12 yrs.)
2= middle school age (13-14 yrs.)
3= high school age (15-18 yrs.)
4= unsure

153. I am going to show you a card with different categories of income. Next to each amount is a number. Please indicate which number matches the approximate income that your household earned in the past 12 months.

1= Less than $1,000	6= $20,000 to $29,999
2= $1,000 to $4,999	7= $30,000 to $39,999
3= $5,000 to $9,999	8= $40,000 to $49,999
4= $10,000 to $14,999	9= More than $50,000
5= $15,000 to $19,999	

What language do you prefer:

154. to speak in general? 1=Spanish 2=English 3=Both equally

155. to speak at work? 1=Spanish 2=English 3=Both equally

156. to speak at home? 1=Spanish 2=English 3=Both equally

157. What language(s) do you primarily read in? *(circle all that apply)*

1= Can't read	3= English
2= Spanish	4= Other Language _____
5= More than one language	

*****The Following Questions are for Persons Who Mostly Do Not Speak English*****

158. Do you find it hard to deal with daily situations because you have a problem speaking English?
1=Yes 2=No

159. Have you been discriminated against? 1=Yes 2=No

(If yes, ask)

160. Please specify if it was *(Interviewer read all responses aloud and circle all that apply)*

1= by coworkers	4= at banks	7= by neighbors
2= at school	5= by employers	8= by others
3= by police	6= by realtors	9= by stores

*****The Following Questions Are For All Respondents*****

161. What place do you consider to be your home? *(Circle One)*

1= Michigan	5= Central America (south of Mexico)
2= Mexico	6= Cuba
3= Florida	7= Dominican Republic
4= Texas	8= Puerto Rico
9= Other (Name U.S. state or other country)_____	

162. How would you identify yourself? *(interviewer please give an example)*

1= Mexican	5= Cuban	9= other
2= Mexican American	6= Dominican	
3= Hispanic	7= Latino	
4= Chicano	8= Puerto Rican	

Now, I am going to ask you some questions that are sensitive.

Do you know of someone who has been abused in the following ways:

163. Verbally (e.g. who has been shouted at or ridiculed)?
1=Yes 2=No 3=Don't Know 4=No Answer

164. Physically (e.g.who has been beaten or punched)?
1=Yes 2=No 3=Don't Know 4=No Answer

165. Sexually (e.g., who has been raped)
1=Yes 2=No 3=Don't Know 4=No Answer

166. Do you consider abuse a problem among people you know?
1=Yes 2=No 3=Don't Know 4=No Answer

167. Do you feel safe in your neighborhood (where you now live)?
1=Yes 2=No 3=Don't Know 4=No Answer

168. Do you feel that you have enough police protection where you live?
1=Yes 2=No 3=Don't Know 4=No Answer

I would like to ask you one last question and then I will answer any questions that you may have to the best of my ability.

169. Have you participated in an interview with these same questions, exactly, before?
1=Yes 2=No 3=Don't Know

(If yes, ask)
170. When? _____

171. Where? _____
county and state

Now the interview is over. Thank you very much for your time.

Time Interview ended_____
(Interviewer, please explain whether you believe respondent was interviewed with this questionnaire before)

_____

_____

_____