Prevalence of Chronic Disease Risk Factors among Vineyard and Winery Workers in Oregon.

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**INTRODUCTION**

- Agricultural work is one of the most dangerous jobs in the United States due to its unique occupational health concerns.
- 85% of hired agricultural workers are foreign-born and 90% are Hispanics; mostly from Mexican origin.
- 5% of migrant farm workers are covered by employer-provided health insurance.\textsuperscript{2}
- Data from Hispanic Health and Nutrition Examination Survey (NHANES) indicates that compared with non-Hispanic whites, Hispanics have higher rates of some chronic diseases, particularly, Type 2 diabetes (3.8% of Hispanics of Mexican origin, 20-44 year-olds versus 1.6% for 20-44 year-olds non-Hispanic white). Yet, chronic disease research among Latin agricultural workers is limited. It is unclear if Hispanic agricultural workers face similar trends in chronic diseases as those observed in the US Hispanic population.

**Study Purpose:**

- To examine changes in chronic disease indicators: elevated blood sugar levels (≥140 mg/dl), obesity (BMI ≥30), hypertension (≥130 mm Hg) and elevated cholesterol levels (≥200 mg/dl) among Vineyard and Winery Workers in the North Willamette Valley, Oregon from 2004 to 2012.
- To study the association of health insurance status, and length of residency in the US, to chronic disease indicators.

**RESULTS**

**Key Findings**

- The mean age of the study population was 34.19 years-old.
- 8.4% of our sample had health insurance, slightly higher frequency than the one reported by National Agricultural Survey in 2002.
- Figure 1 elevated glucose prevalence dropped almost double from 2004 to 2012; while elevated systolic blood pressure prevalence remained high during 9 years. A significant increase in SBP prevalence can be observed in 2005 slightly dropping in 2006. Compared to other indicators, obesity has continued to grow from 2004 to 2012. On the other hand, elevated cholesterol fluctuated from 2004 to 2009 increasing significantly in 2010 and staying constant during the last two years.

**Multivariate logistic regression analysis:**

- Married individuals were statistically more likely to present elevated cholesterol levels.
- Females were statistically more likely to be obese.
- Age was significantly associated with most chronic disease indicators.

**CONCLUSION**

- Analyses of 2004 – 2012 Tuality Healthcare ¡Salud! summer wellness clinic data reveals that prevalence of chronic disease indicators in this group have been increasing, particularly obesity and cholesterol.
- Our findings reflect the high frequencies of obesity found nationally in low-income minority populations\textsuperscript{2} and congruent with previous research done in similar populations, which found high prevalence of obesity among farm workers.\textsuperscript{1} Indeed, previous studies have recognized obesity, high blood pressure, and hypercholesterolemia are a major threat in approximately half of farm workers.\textsuperscript{3,4}
- Future research should focus on longitudinally examining changes on chronic health indicators among those who attend screening clinics yearly.

**METHODS**

- **Data sources:** Secondary cross-sectional survey and clinical data collected by ¡Salud program during wellness clinics from 2004 to 2012.
- **Participants:** 18 to 74 year-olds vineyard and winery workers of North Willamette Valley in Oregon. Participants with missing values for chronic disease indicators were excluded from the analysis (n=2,344).
- **Chronic disease indicators definition:** Obesity (BMI ≥30); elevated cholesterol levels (≥200 mg/dl); elevated glucose levels (≥140 mg/dl); and hypertension (≥130 mm Hg).
- **Univariate analysis:** performed to explore demographic characteristics.
- **Estimates of annual prevalence were obtained:** dividing the total number of prevalent cases for each chronic disease indicator by the total number of participants in the given year. Plotting the actual count numbers of people with prevalent cases for each chronic disease indicator by the total number of participants in the given year.

**REFERENCES**