

Melanoma and Breast Cancer Awareness and Prevention

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ABSTRACT

Farmworkers are among the Coachella Valley's largest underserved groups, forming the backbone of local agriculture, and the subject of our project. We surveyed Hispanics exposed to pesticides and excessive UV radiation. Both occupational carcinogenic factors are compounded by long careers. In addition to melanoma, we focused on breast cancer because it is the leading cause of cancer death among older Hispanic females.² We measured self-reported family histories of melanoma and breast cancer, safety practices, Sun exposure, whether the individual (female) can perform a breast self-examination, and mammogram frequency. Females reported using sunscreen significantly more than males. Further studies may investigate the prevalence of melanoma (and non-melanoma) skin cancer among farmworker families by implementing mobile melanoma screening drives; in addition, such drives may direct older Hispanic females to local low or no-cost breast cancer screening services to raise cancer awareness among the Hispanic farmworker population.

INTRODUCTION

Compared to the general Hispanic population, farmworkers have higher mortality rates for various forms of cancer, the diagnoses of which occur in later stages of the disease.³ A previous study of older Hispanic females reported that 29% had not received a mammogram within two years.² Our project assessed disparities in self-reported risk factors between the general Coachella Valley population and Hispanic farmworkers in Mecca, a rural farming community situated in the east end of the Coachella Valley in Riverside County, California. The project's ultimate aim is to promote the use of sunscreen and other personal protective practices (i.e., mammograms) to minimize health risks among medically underserved members of our community who are at greater risk of developing skin and breast cancer. Alongside our melanoma outreach, we aim to promote regular mammography within this population. By expanding our outreach in the Hispanic farmworker community, we hope to create a culture that is more cancer-aware and better prepared to address personal concerns about cancer.

METHODS

We focused on melanoma and breast cancer prevention and awareness in male farm workers as well as older Hispanic females, respectively. We coordinated with the Mecca Family Resource Center, which offers workshops for laid off farm workers. Our FPL group tabled at the Mecca Family Resource Center, surveying clients who were leaving the center or adjacent clinic. We provided the center with digital copies of bilingual surveys (in Spanish and English), which they printed and distributed to the clients. We partnered with Melanoma Awareness Project of the Desert (MAP) and the Desert Cancer Foundation.

Our group made a Spanish pamphlet that summarized the practical information on melanoma and breast cancer that we acquired through MAP and the Desert Cancer Foundation. Our pamphlet offers guidance in identifying cancerous moles, information on performing a mammary self-examination, and a list of local low or no-cost resources for screening, information, and treatment.

On Sunday, July 31, we went to the College of the Desert Alumni Association's Street Fair to survey local vendors and customers. We incentivized participation with pamphlets, and an ultraviolet-reactive bracelet or Frisbee, both of which change colors after prolonged UV exposure.

RESULTS

Melanoma Risk Factors

The table below depicts data predominantly collected from farmworkers in Mecca, CA, and from the general population in Palm Desert, CA.

	Hispanic Male Farm workers (n=14)	Hispanic Female Farm workers (n=46)	Caucasian Males (COD street Fair) (n=4)	Caucasian Females (COD street fair) (n=5)	Asian Male (COD street fair) (n=1)
Wear sunscreen	10%	52%	50%	80%	100%
Use other form of protection	86%	70%	50%	20%	100%
Exposed to pesticides	86%	70%	0%	20%	0%
Work 8+ hour shifts	50%	59%	25%	0%	100%
Worked outside 20+ years	71%	41%	50%	20%	100%
Family history of melanoma	7%	4%	0%	60%	0%

Table 1. In-Person Surveys: Results show prevalence of factors that mitigate or increase risk of skin cancer among Hispanics and Caucasians. In general, males and Hispanics are less likely than females and Caucasians to wear sunscreen. Hispanics have greater exposure to pesticides and UV radiation than Caucasians.

The table below depicts Sun exposure data collected from the general population online, via social media (Facebook, Instagram, and Twitter), represented by the authors' peers who reside in the Coachella Valley. Figure 1 (right) shows frequencies of responses to melanoma survey questions from all Hispanics.

	Hispanic Males (n=12)	Hispanic Females (n=18)	Other Male (n=1)	Caucasian Female (n=1)	Asian Male (n=1)
Wear sunscreen	40%	50%	100%	100%	0%
Use other form of protection	50%	20%	100%	100%	100%
Exposed to pesticides	40%	20%	0%	0%	0%
Work 8+ hour shifts	8%	0%	0%	0%	0%
Worked outside 20+ years	0%	0%	0%	0%	0%
Family history of melanoma	0%	10%	0%	0%	0%

Table 2. Online Surveys: Data set is similar to Table 1. The data shows a reduced disparity of sunscreen use between Hispanic males and females. Hispanics are less likely than Caucasians to wear sunscreen, as are Hispanic males compared to Hispanic females.

RESULTS

Melanoma: Hispanic or Latino Male and Female Surveyed

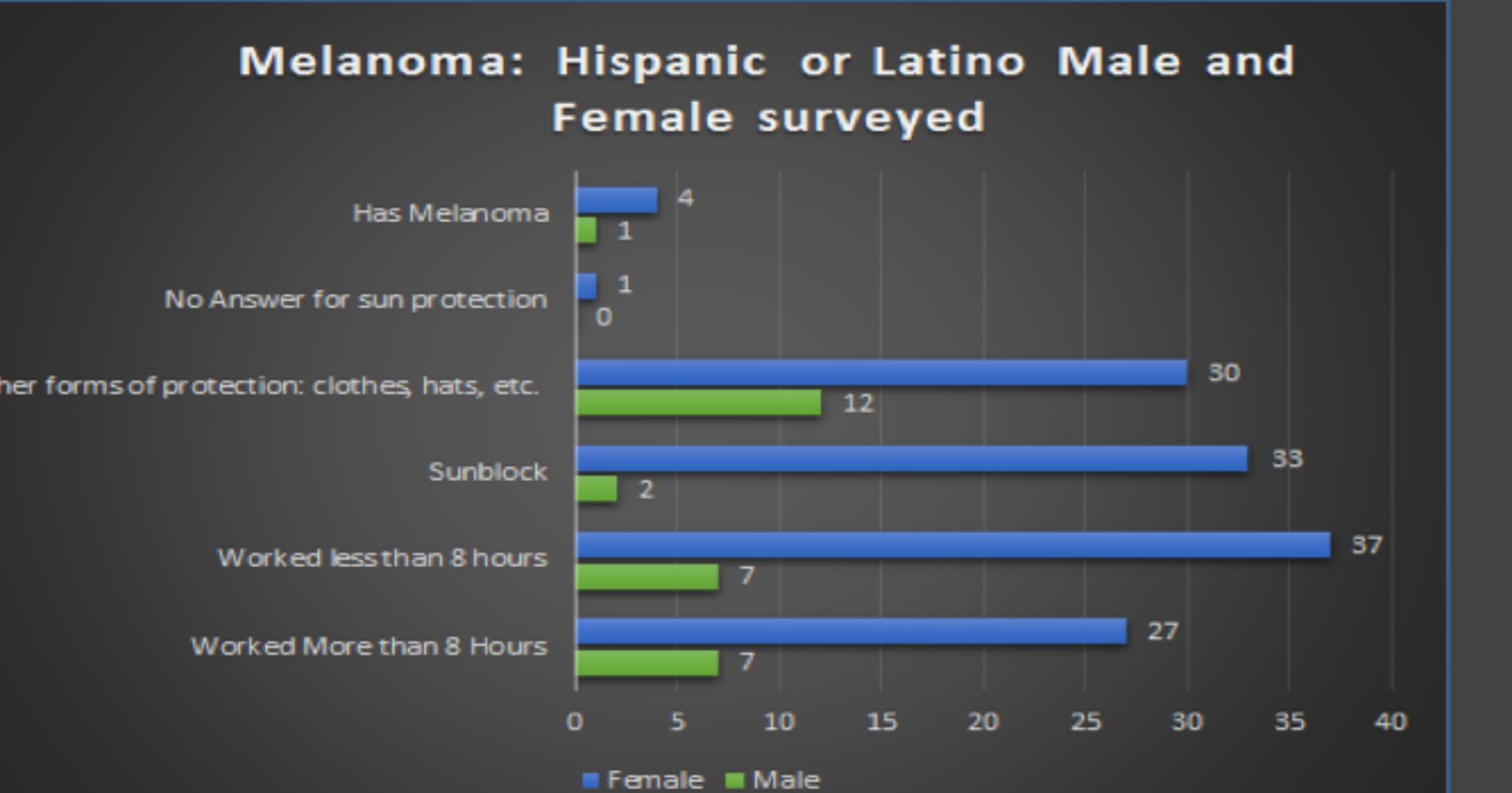


Figure 1. Melanoma Risk Factors in Hispanics: The results of all Hispanics surveyed for protection from and exposure to the Sun.



Breast Cancer Screening

The figure and table below depict mammography statistics collected from females online and in Mecca.

Breast Cancer: Hispanic Females Surveyed

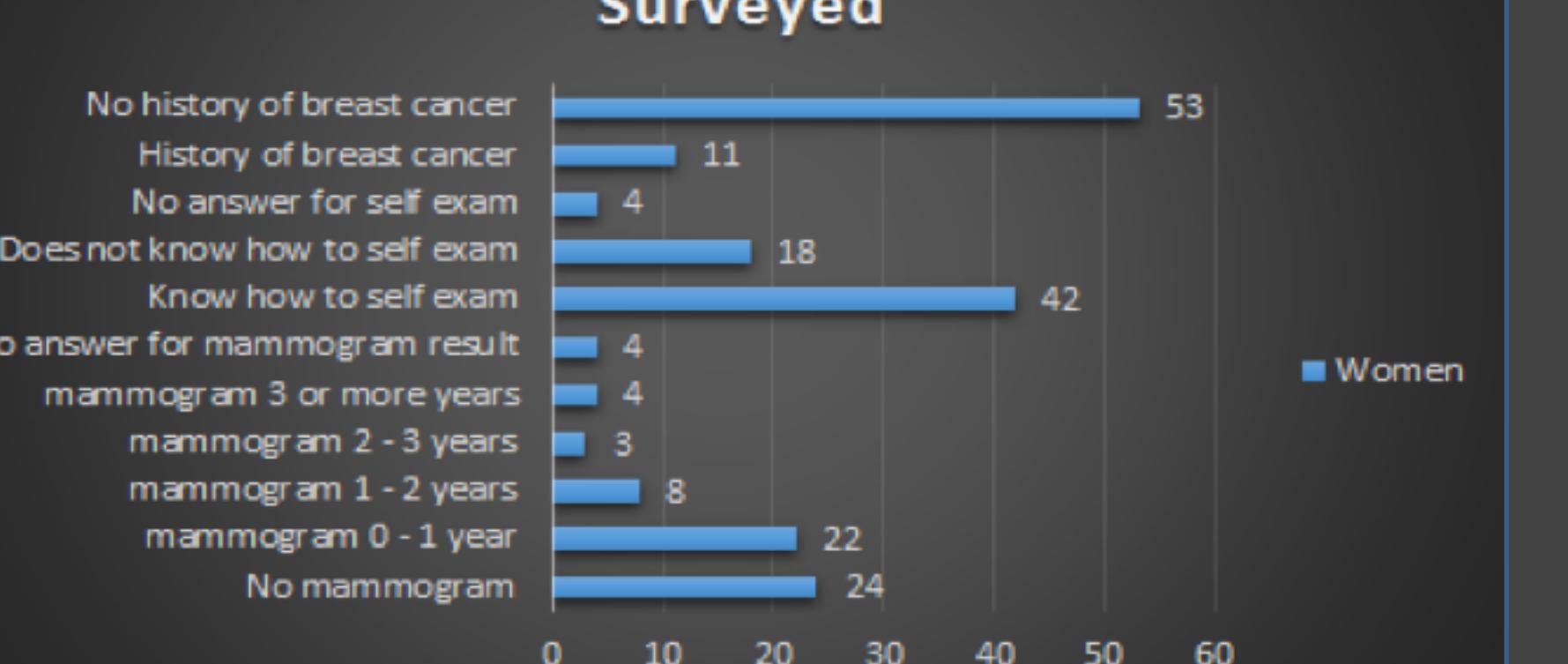


Figure 2. Mammography Practices in Hispanics: Frequencies of survey responses to queries about breast cancer history, knowledgeability to self-examine breasts, and mammography practices.

	Hispanic Females (n=64)	Caucasian Females (n=6)
No history of breast cancer	41%	30%
History of breast cancer	50%	50%
Does not know how to self-exam	28%	0%
Knows how to self-exam	65%	100%
Prev. had a mammogram	58%	80%
Mammogram 0-1 year ago	34%	70%
Mammogram 1-2 years ago	10%	20%
Mammogram 2-3 years ago	5%	0%
Mammogram 3+ years ago	6%	0%

Table 3. Mammography Practices: Our data shows significant disparities in practices between Caucasians and Hispanics with respect to breast self-examination and recent mammograms. Percentages calculated using data from Hispanic and Caucasian females from all survey sources.

SUMMARY OF RESULTS

Mecca Fieldworkers Surveyed: 60
46 ♀, 14 ♂
COD Street Fair Participants Surveyed: 10
5 Caucasian ♀
4 Caucasian ♂
1 Asian ♂
Online Participants Surveyed: 33
Hispanic or Latino: 18 ♀, 12 ♂
Non-Hispanic: 1 ♀, 2 ♂

ANALYSIS OF RESULTS

Table 1 shows that, among Mecca farmworkers, males are 3.7 times less likely than females to use sunscreen. This suggests male and female Hispanic farmworkers may hold different attitudes toward skin care products. Males may benefit from education that distinguishes sunscreen from other skin care products for its ability to block ultraviolet radiation, and thus reduce cutaneous carcinogenesis. Tables 1 and 2 shows that Caucasians are more likely than Hispanics, (farmworkers and in general, respectively), to wear sunscreen, suggesting a cultural barrier among Hispanics who don't use sunscreen. Further studies may examine Hispanic attitudes toward sunscreen use and cost.

Mammography data from Mecca supports findings reported on by Gambini, with 42% of all Hispanic females reporting no prior mammograms (Table 3). This value is higher than Gambini's 29% likely due to a younger median age among our online participants.² Further studies may examine cultural and logistical barriers to regular mammography among Hispanics.

Table 3 shows that, among all the females we surveyed, 28% of Hispanic females are less likely to know how to self-exam, compared to Caucasian females who all stated they know how to self-exam. In addition, Caucasian females are twice as likely as Hispanic females to have a recent (2yr) mammogram. This further demonstrates possible cultural and logistical barriers Hispanic females in the Coachella Valley face compared to Caucasian females.

Although post-Affordable Care Act data on non-geriatric adults shows that Hispanics are 3 times more likely than Caucasians to be uninsured,¹ low or no-cost skin and breast cancer screening services are locally available to qualified uninsured patients. Future health work in the Coachella Valley may focus on connecting local farmworkers to these services.

REFERENCES

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