

SURVIVAL DISPARITIES IN SKIN CANCER FOR PEDIATRIC AND YOUNG ADULT POPULATION IN FLORIDA: ANALYSIS OF POPULATION-BASED CANCER

REGISTRY (1981-2009)

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INTRODUCTION

- ❖ Despite the rarity of skin cancer (SC) in children, the most common SC in the pediatric population is melanoma followed by basal cell carcinoma and squamous cell carcinoma.
- ❖ Pediatric melanoma is on the rise and differences in incidence rates between children and adolescents exist.
- ❖ Age and stage at presentation play important roles in SC prognosis. For example, melanoma has a 5-year survival rate >90% when caught early.

METHODS

- ❖ The Florida Cancer Data System (1981-2009) was linked with the US census to explore median survival and survival rates by sociodemographics for all SC types.
- ❖ We elucidated disparities in SC survival in the Floridian pediatric (0-19 yrs) and young adult (20-24 yrs) population across sociodemographic groupings, such as gender, race, ethnicity, socioeconomic status (SES), and age.
- ❖ Survival time is the primary clinical endpoint and is calculated as the elapsed time from date of SC diagnosis to date of death or date of last contact if patient is still alive.

Table 1: Demographic Characteristics

	All n=1,303	Age groups (years)		
		0 to 9	10 to 19	20 to 24
All	1,303 (100)	53 (4.1)	418 (32.1)	832 (63.9)
Sex				
Male	550 (42.2)	27 (50.9)	190 (45.5)	333 (40)
Female	753 (57.8)	26 (49.1)	228 (54.5)	499 (60)
Race				
White	1,218 (93.5)	42 (79.2)	393 (94)	783 (94.1)
Black	59 (4.5)	7 (13.2)	18 (4.3)	34 (4.1)
Other	26 (2)	4 (7.5)	7 (1.7)	15 (1.8)
Ethnicity				
Non-Hispanic	1,234 (94.7)	47 (88.7)	389 (93.1)	798 (95.9)
Hispanic	69 (5.3)	6 (11.3)	29 (6.9)	34 (4.1)
SES				
Lowest	146 (11.2)	9 (17)	36 (8.6)	101 (12.1)
Middle-low	371 (28.5)	12 (22.6)	117 (28)	242 (29.1)
Middle-high	449 (34.5)	25 (47.2)	140 (33.5)	284 (34.1)
Highest	337 (25.9)	7 (13.2)	125 (29.9)	205(24.6)
SC Type				
Malignant Melanoma	820 (62.9)	26 (49.1)	255 (61)	539 (64.8)
UV Related	232 (17.8)	3 (5.7)	79 (18.9)	150 (18)
Other	251 (19.3)	24 (45.3)	84 (20.1)	143 (17.2)

SES: %households living below the poverty in the neighborhood as lowest (≥20%), middle-low (≥10% and <20%), middle-high (≥5% and <10%), or highest (<5%)

Kaplan-Meier Overall Survival Curves by Race, Ethnicity, SES

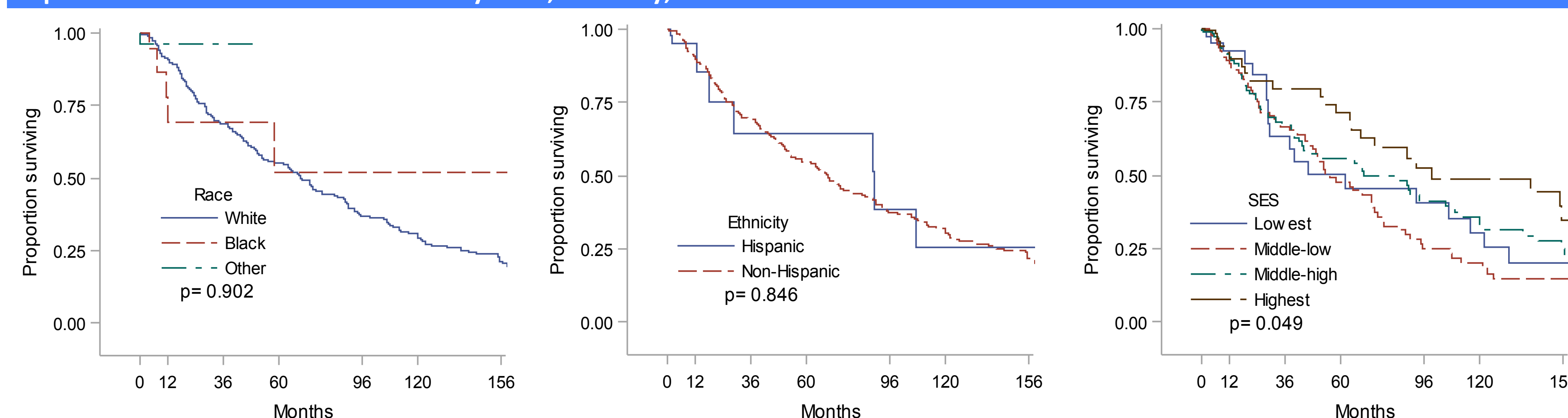
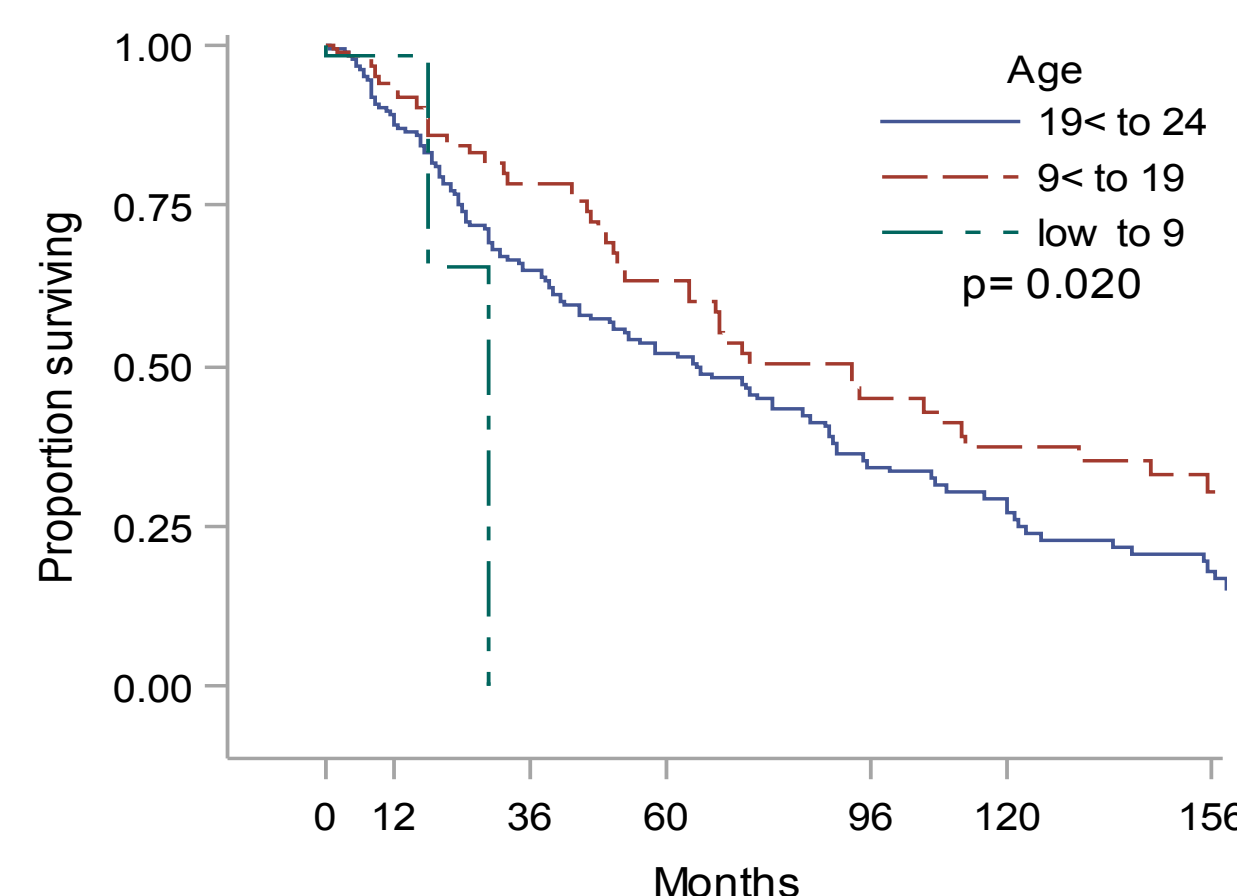


Table 2: Survival rates (95% CI) at 1 Year

All Ages	0 to 9 yrs	10 to 19 yrs	20 to 24 yrs
91.0% (87.4-93.5)	98.1% (87.4-99.7)	94.2% (87.7-97.3)	89.2% (84.4-92.6)
SC Types	Malignant Melanoma	UV related	Other
91.0% (87.4-93.5)	90.9% (86.6-93.8)	95.2% (70.7-99.3)	88.2% (77.4-94.1)

Kaplan-Meier Overall Survival Curves by Age groups



RESULTS

- ❖ Overall pediatric skin cancer median survival rate at 1 year is 91.0%, 3 years is 68.8%, and 5 years is 55.0%.
- Age:**
 - ❖ Survival is greatest at 1, 3, and 5 years for children up to age 9.
 - ❖ Survival is lowest for young adults (ages 19-24).
- Race/Ethnicity:**
 - ❖ 1-year survival rate for Whites: 91.5%; Blacks: 77.9%.
 - ❖ Survival rate at 3-years is comparable for Blacks (69.3%) and Whites (68.8%).
 - ❖ 5-year survival rate for Whites: 55.0%; Blacks: 51.9%.
 - ❖ “Other” race 1 and 3-year survival rate: 96.2%.
 - ❖ Non-Spanish Hispanic Latinos had similar 1, 3, and 5-year survival rates compared to Whites.
 - ❖ Spanish Hispanic Latinos had the greatest 5-year survival rate: 64.2%.
- SES:**
 - ❖ Comparable 1-year survival rates for each level (range: 89.4-92.3%), with lowest SES having the highest survival rate (92.3%).
 - ❖ 3-year survival rates for lowest to middle-high SES: 63.2%-67.0% (5-year: 47.6-55.8%), but 79.5% for highest SES (5-year:71.2%).

CONCLUSION

- ❖ With multiple studies finding that skin cancer is on the rise in the pediatric population, it is important to elucidate determinants associated with survival outcomes.
- ❖ Disparities in survival should be addressed in order to effectively target pediatric populations at risk for skin cancer.
- ❖ This study may assist in creating culturally competent, socially responsible skin cancer screening and prevention programs in the pediatric population.