

Skin Cancer Control in Maryland

Alison Ehrlich, MD, MHS
Director of Clinical Research
Department of Dermatology
George Washington University

Skin Cancer Statistics

- Skin cancer accounts for 50% of all new cancers.
- More than 1 million new cases of skin cancer will be diagnosed in the United States this year.
- 59,580 persons are expected to be diagnosed with melanoma this year in the US.
- Melanoma is the most common cancer in people age 25 to 29 years old.

» American Cancer Society Facts and Figures. 2005.

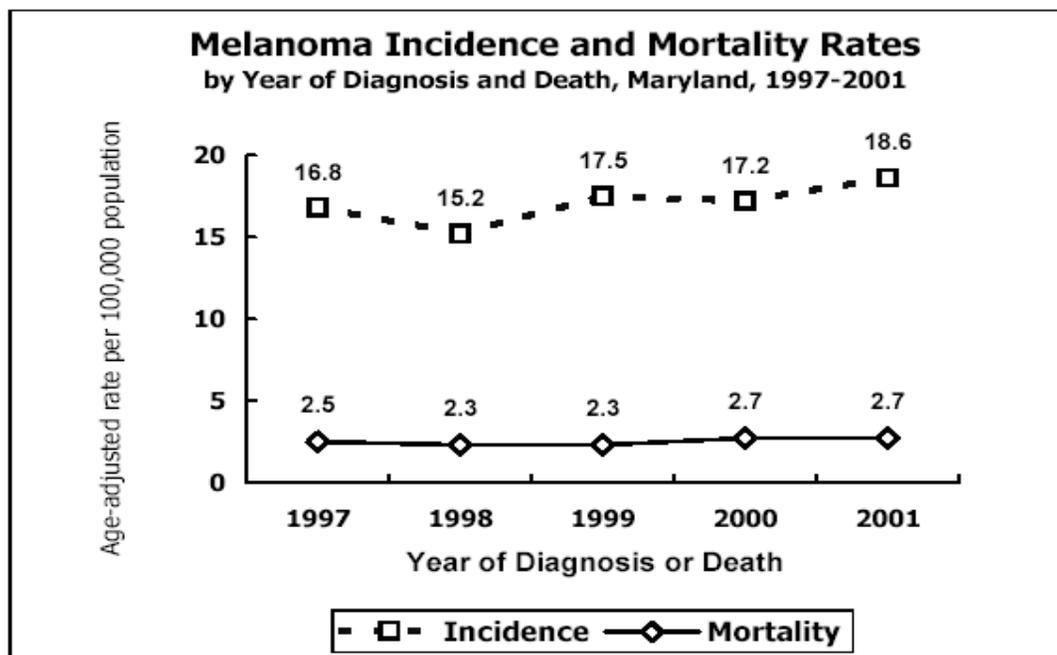
Maryland Skin Cancer Rates

- In 2001, a total of 991 persons in Maryland were diagnosed with melanoma of the skin.
- The age adjusted incidence rate for melanoma for 2001 is 18.6 per 100,000 population (17.4-19.8, 95% C.I.).
- The Maryland rate is similar to the 2001 U.S. SEER age-adjusted incidence rate of 18.7 per 100,000 population for melanoma.

Maryland Skin Cancer Rates

- In 2001, a total of 137 persons died of melanoma in Maryland.
- The age-adjusted mortality rate for melanoma in Maryland is 2.7 per 100,000 population (2.2-3.2, 95% C.I.).
- This rate is the same as the 2001 U.S. melanoma mortality rate of 2.7 per 100,000 population.
- Maryland is ranked 38th for melanoma mortality among the states and the District of Columbia for the period 1997-2001.

Melanoma-Incidence and Mortality



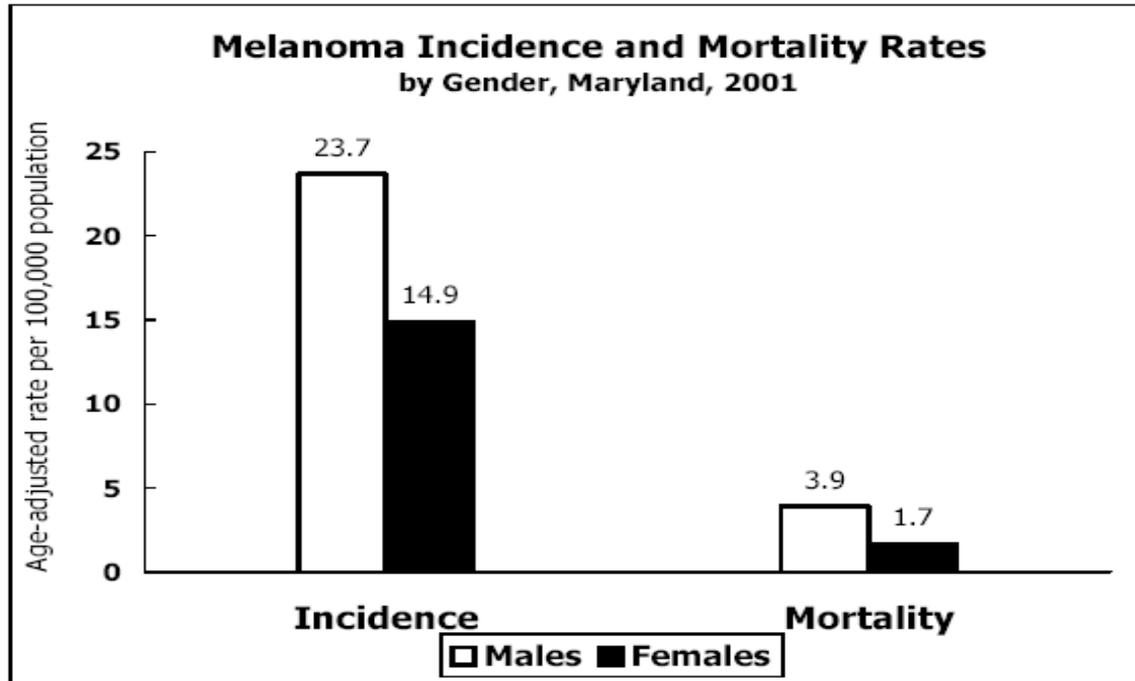
Trend

Melanoma incidence rates have increased an average of 3.3% per year from 1997 to 2001 in Maryland.

Melanoma mortality rates increased an average of 3.2% per year in Maryland from 1997 to 2001.

Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 1997-2001
Maryland Division of Health Statistics, 1997-2001

Melanoma-Gender Specific



Gender-Specific Rates

Males had statistically significantly higher incidence and mortality rates for melanoma than females. The mortality rate was more than double for males than for females.

Rates are age-adjusted to 2000 U.S. standard population
Maryland Cancer Registry, 2001
Maryland Division of Health Statistics, 2001

County Melanoma Death Rates

County	Met Healthy People Objective of 2.5?	Annual Death Rate/ deaths per 100,000 (95% CI)	Ave Deaths/Yr		Recent Trend ²	Recent Annual Percent Change ⁻ in Death Rates (95% Confidence Recent Trend Pe	
				Rate Period			
Carroll County	No	4.6 (3.1, 6.5)	7	1998 - 2002	 stable	2.2 (-0.4, 4.8)	1978 - 2002
St. Marys County	No	4.6 (2.6, 7.5)	3	1998 - 2002	**	**	**
Allegany County	No	3.4 (1.9, 5.8)	3	1998 - 2002	 stable	1.7 (-1.7, 5.2)	1978 - 2002
Anne Arundel County	No	3.1 (2.4, 4.0)	14	1998 - 2002	 rising	1.5 (0.1, 3.0)	1978 - 2002
Baltimore County	No	2.8 (2.3, 3.4)	24	1998 - 2002	 stable	0.2 (-1.2, 1.7)	1978 - 2002
Hartford County	No	2.6 (1.7, 3.9)	5	1998 - 2002	**	**	**
Montgomery County	No	2.6 (2.2, 3.2)	22	1998 - 2002	 stable	0.2 (-1.1, 1.6)	1978 - 2002
Frederick County	Yes	2.3 (1.4, 3.6)	4	1998 - 2002	**	**	**
Prince Georges County	Yes	1.6 (1.2, 2.2)	10	1998 - 2002	 falling	-1.8 (-3.3, -0.2)	1978 - 2002
Baltimore City	Yes	1.6 (1.2, 2.1)	11	1998 - 2002	 stable	-0.2 (-2.0, 1.7)	1978 - 2002

Healthy People 2010

- Reduce melanoma deaths to 2.5 per 100,000.
- Increase to 75% the proportion of persons who use at least one of the following:
 - ❖ avoid the sun between 10am-4pm.
 - ❖ wear sun-protective clothing.
 - ❖ use sunscreen SPF ≥ 15 .
 - ❖ avoid artificial sources of ultraviolet light.

Prevention vs. Early Detection

- CDC--- interventions recommended:
 - ❖ Education & policy related to primary schools and recreational setting.
 - ❖ Recommendations is based on review of published papers.

Skin Cancer Screening

- US preventative services task force:
 - ❖ Evidence is insufficient to recommend for or against routine screening for skin cancer using a total body skin exam for the early detection of skin cancer.
- NCI and AAD support skin cancer screening.

MELANOMA-Early Detection

- **Early Detection saves lives:**
 - ❖ **5 yr survival 94%-localized disease.**
 - ❖ **5 yr survival 16%-metastatic disease.**
- **AAD skin cancer screening programs:**
 - ❖ **1985-1999 found nearly 30% of subjects had lesions suspicious for skin cancer.**

MELANOMA-Early Detection

- Patients are less likely to detect melanoma if it is on their back.
- Tumors in less visible anatomic sites tend to be thicker than in visible areas.
- Geller et al found 63% of 261 pts with melanoma had seen a physician the year prior to diagnosis and only 20% had a skin exam.¹

J Gen Intern Med 1992

Melanoma depth: Impact of surveillance

- Yale pigmented lesion clinic-retrospective cohort study:
 - ❖ Initial melanomas detected by a dermatologist-more likely to be 0.75mm or less in depth than by another physician.
 - ❖ Dermatologists discovered 80% of second primary melanomas.

Tanning Beds-melanoma risk

- Meta-analysis Jan 1, 1984 to April 2004.
 - ❖ 9 case-control and 1 cohort study.
 - ❖ Assessment of melanoma risk among subjects who reported "ever" being exposed compared with those "never" exposed.
- A positive association was found between exposure and risk (summary OR, 1.25; 95% CI, 1.05-1.49).

Tanning Bed Use-Children

- A cross-sectional study of 10,079 boys and girls (12-18 yrs) in 1999.
- Self-report questionnaires with the children of the participants from the Nurses Health Study (Growing Up Today Study).
- Nearly 10% of respondents used a tanning bed during the previous year.
 - ❖ Girls-more likely to report tanning bed use (14.4 vs 2.4).
 - ❖ Older girls (ages 15-18) -more likely than younger girls (ages 12-14) to report tanning bed use (24.6% vs 4.7).
 - ❖ **Tanning bed use increased from 7% among 14-year-old girls to 16% by age 15, and more than doubled again by age 17 (35%; N = 244).**

Pediatrics. 2002 Jun;109(6):1009-14.

Maryland Skin Cancer Plan

- School based education.
- Regulation of tanning bed use.
- Encourage health care providers to perform skin cancer screening.
- Improve provider education on recognition of suspicious lesions.
- Increase access to dermatologists in underserved areas.

Education and Policy

- 2001-Maryland Department of Education developed Guidelines for sun protection:
 - ❖ Resources for environment assessment.
 - ❖ Development of sun-safe policies.
 - ❖ Sunscreen can be brought to school.

Coalition for Skin Cancer Prevention

- Utilize 5-channel model of ACS
 - ❖ Schools
 - ❖ Child care centers
 - ❖ Physicians offices
 - ❖ Recreation centers
 - ❖ media

Coalition for Skin Cancer Prevention

- Outreach w/ Sunguard man.
- Yearly poster contest for K-8th graders.
- Assist with education of child providers using ACS Sun Safe Preschool Curriculum.
- Advises legislators on sunscreen and tanning bed policy.
- Placement of informative brochures in physicians offices and recreation sites.

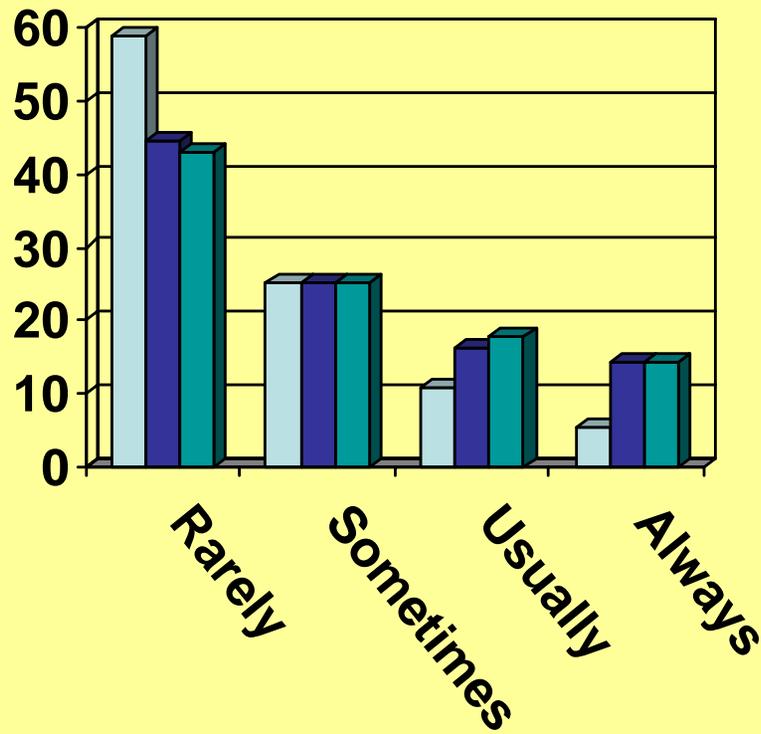
Missing Links

- Education of at risk adults.
- Education of physicians.
- Increase access to dermatologists in underserved areas.
 - ❖ Telemedicine +/- mobile units.
- Health Disparity: geographic and persons of color.

Education and Skin Cancer Screening of High Risk Adults

- Outdoor workers: watermen, construction workers, farmers.
- Maryland Watermen SunSmart Project:
 - ❖ Education + Skin Cancer Screening.
 - ❖ Pre and Post tests.
 - ❖ 77 watermen currently enrolled.
- Key: Effective intervention with targeting organized groups or associations.

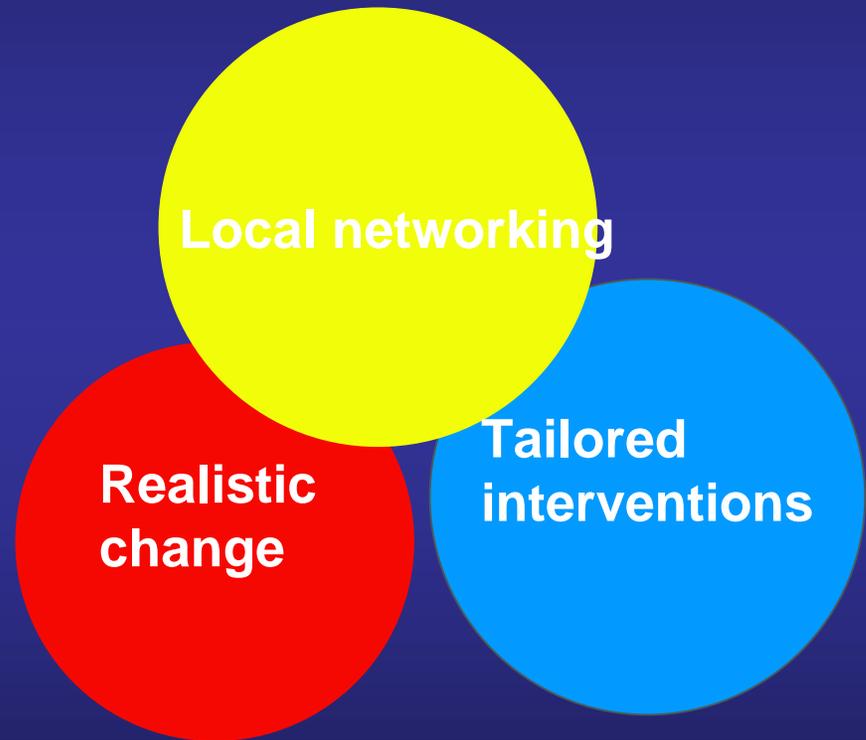
SUNSCREEN USE IN WATERMEN



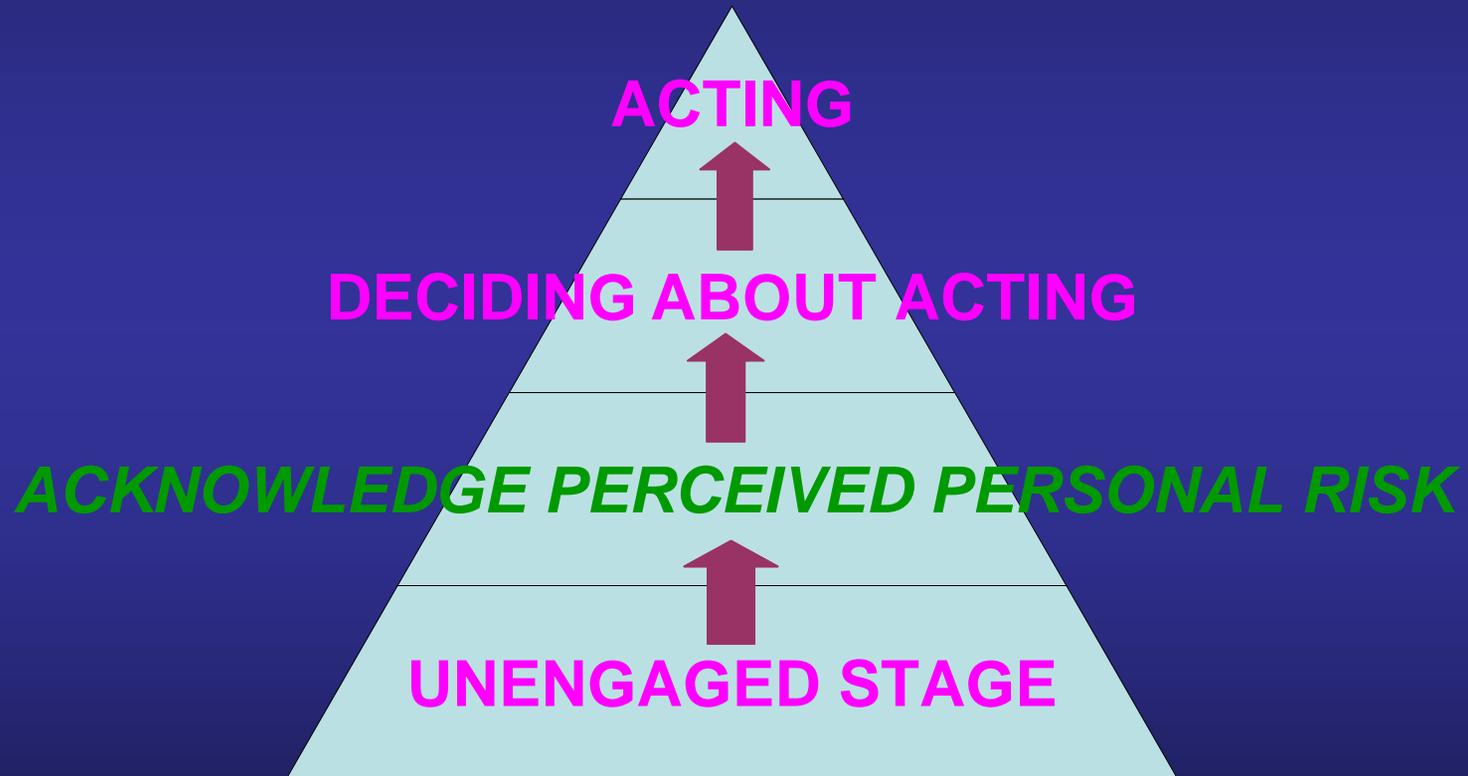
Legend: Lips (light blue), Ears (dark blue), Face (teal)

EFFECTIVE INTERVENTIONS WITH WATERMEN

- Three channels:
 - ❖ Local networking
 - ❖ Teach practical/realistic methods of change
 - ❖ Targeted/tailored interventions



Precaution Adoption Process Model



Education of Physicians

- Practicing Physicians:
 - ❖ Interactive CME taught by dermatologists.
 - ❖ Accessible to physicians in geographically underserved regions of the state.
- Medical Students:
 - ❖ Include skin cancer education in the core curriculum.

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DEVELOPMENT AND VALIDATION OF A NOVEL SKIN CANCER EDUCATION CURRICULUM FOR MEDICAL STUDENTS

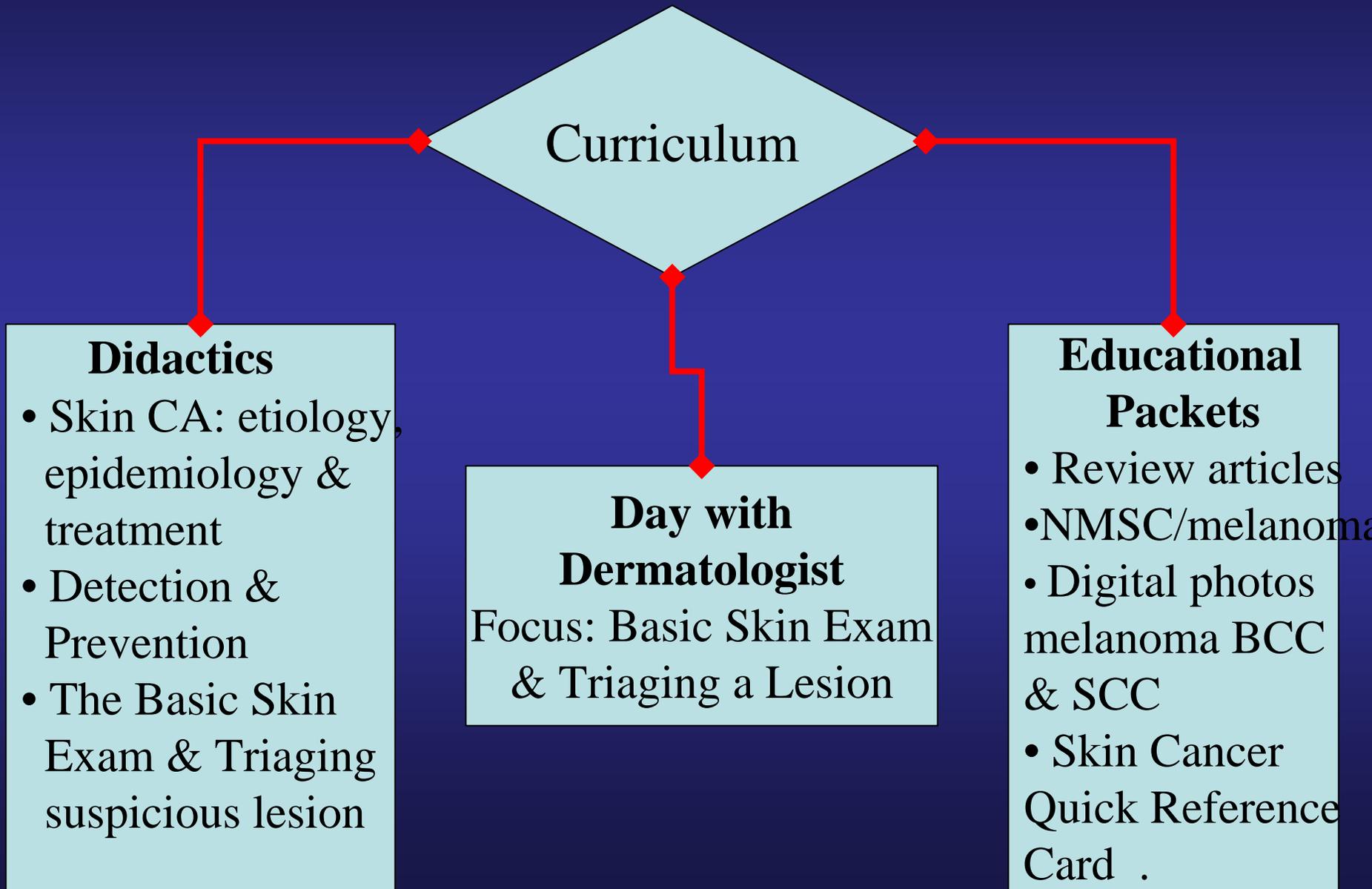
Daven Doshi¹, Kimberly Firth¹, Matthew
Mintz², Alison Ehrlich¹

Depts. of Dermatology¹ and Medicine²,
The George Washington Univ. Med. Ctr.
Washington, DC

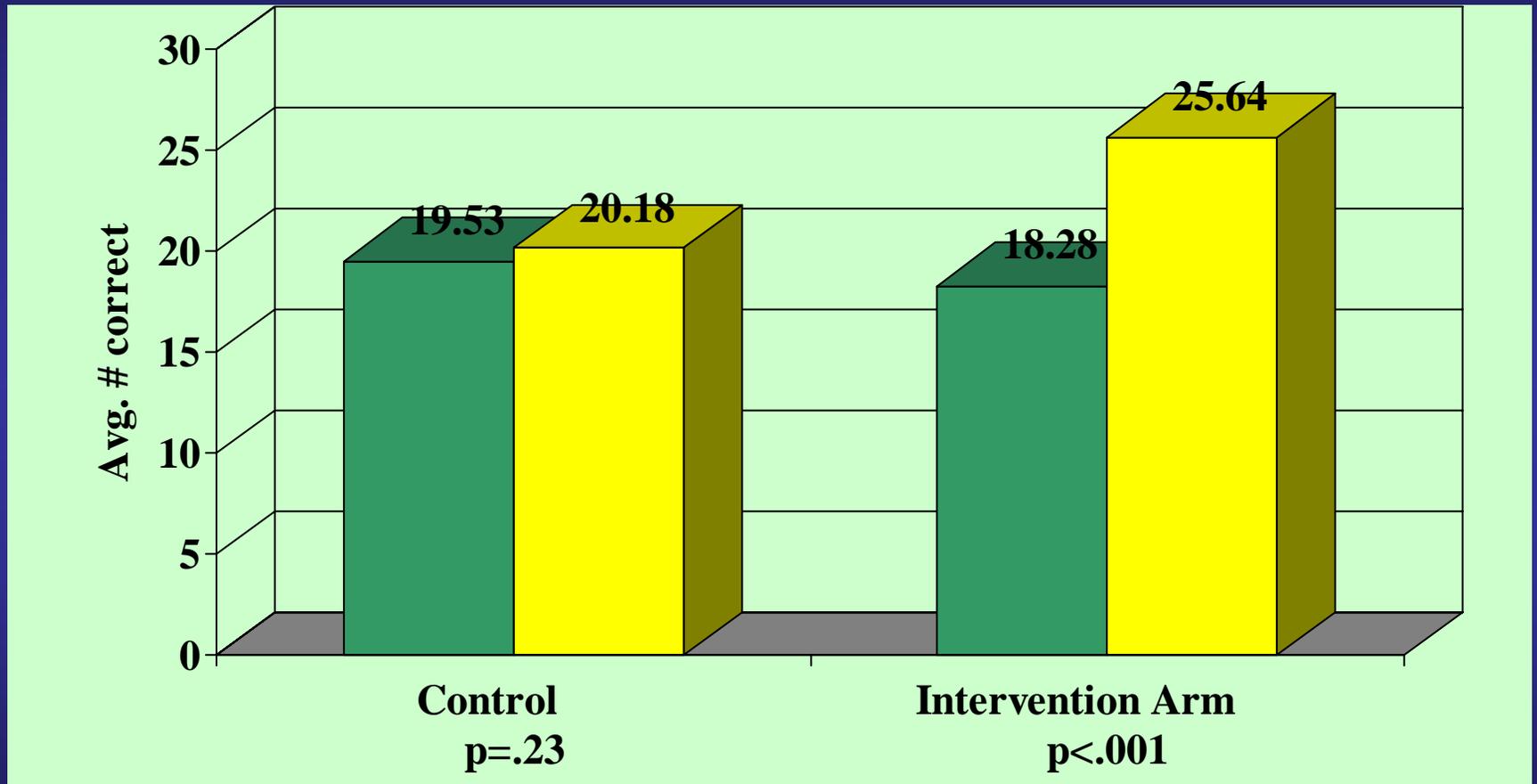
OBJECTIVE

To develop and test a novel skin cancer education curriculum for third year medical students aimed at increasing student knowledge, visual detection skills of benign vs. malignant lesions and awareness of skin cancer.

METHODS



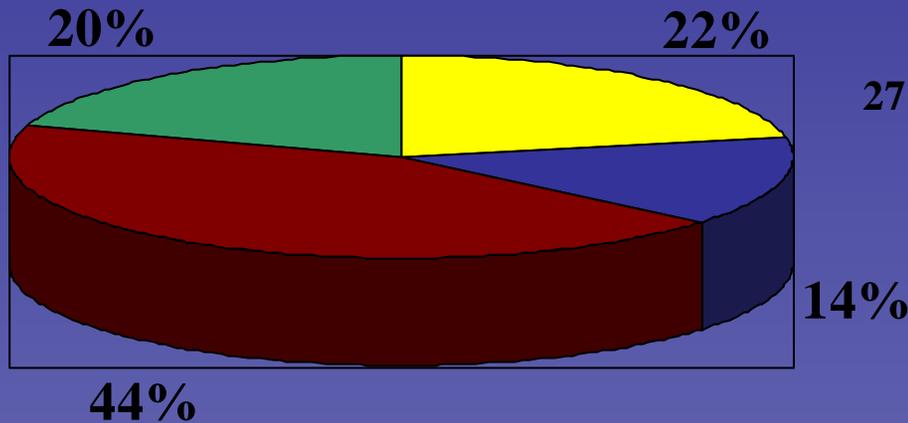
RESULTS: KNOWLEDGE & VISUAL DETECTION



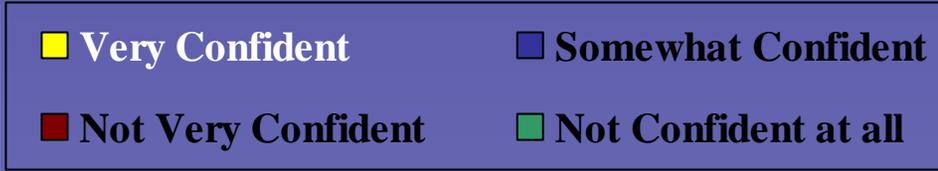
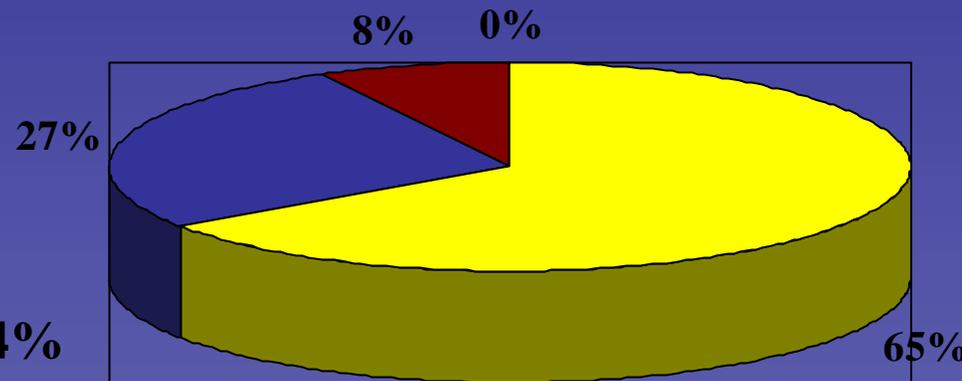
■ Pre-Test Combined ■ Post-Test Combined

RESULTS: ATTITUDES & BELIEFS

How confident do you feel talking with a patient about the importance of sun protection?



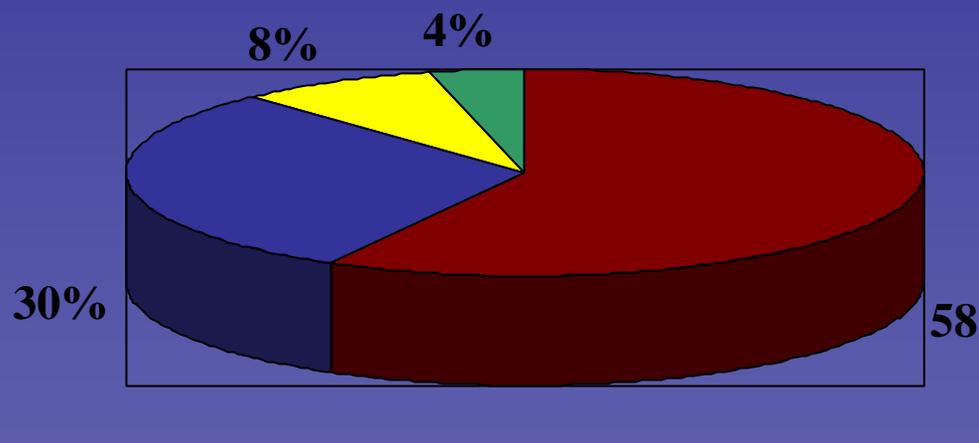
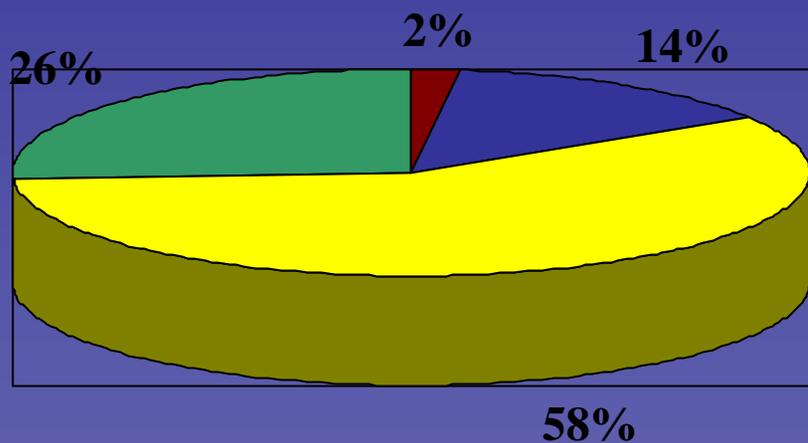
Pre-Test



Post-Test

RESULTS: ATTITUDES & BELIEFS

How confident do you feel in visually detecting a suspicious (potential of malignancy) cutaneous lesion?



Very Confident	Somewhat Confident	Very Confident	Somewhat Confident
Not Very Confident	Not Confident at all	Not Very Confident	Not Confident at all

Pre-Test

Post-Test

Future Goals

- Expand current programs for school age children.
 - ❖ Discourage tanning bed use
- Implement education and screening programs for at risk adults.
- Legislation for tanning bed use.
- Increase access to dermatologists.
- Skin cancer education for healthcare providers.

Acknowledgements

Funding generously provided by:

- ❖ CDC/NIOSH
- ❖ Skin Cancer Foundation