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# Promoting Skin Cancer Awareness

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# Promoting Skin Cancer Awareness

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SREE SAHITHI KOLLI, MSIII

MAY/JUNE 2017

BROOKFIELD FAMILY MEDICINE

MENTOR: DR. ROBERT MASCIA, MD

# The Problem & Need for Intervention

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- Skin cancer is the most common type of cancer
- 1 in 5 Americans diagnosed with skin cancer in lifetime
- 40-50% of people who will live to age 65 will have basal cell carcinoma (BCC) at least once
- Majority of skin cancer deaths from melanoma
  - Every hour 1 person dies from melanoma
- Incidence of melanoma highest in Caucasians compared to all races
  - Incidence rate of 26 out of 100,000 in Caucasians compare to 5 in Hispanics and 1 in African Americans
- Connecticut (CT) had a higher rate of incidence of melanoma than Hawaii in 2013 according to Centers for Disease Control (CDC)
- Brookfield, CT has a population that is approximately 90% Caucasian
  - After seeing and talking with many patients during their annual health maintenance visits, it became apparent that there is a lack of awareness on sun safety and skin cancer prevention
  - There is a lack of a good skin cancer poster in the Brookfield Family Medicine exam rooms which patients can learn from and physicians can utilize in order to educate patients
  - Local dermatologist Dr. Kim Eickhorst mentioned how she gets asked about a poster on melanoma often because of its strong visuals which makes patients more interested in learning how to detect and prevent skin cancer.

# Public Health Cost

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- More people have had skin cancer than all other cancers combined.
- Annual cost for treating skin cancer was \$8.1 billion.
  - \$4.9 billion for nonmelanoma skin cancer and \$3.4 billion for melanoma.
  - Skin cancer costs from tanning beds were \$343 million.
- 126% increase in costs to treat skin cancer compared to 25% increase for all other cancers combined.
- Incidence of skin cancer still rising in CT despite public safety interventions such as banning use of tanning beds by minors under the age of 17.
  - As the incidence of skin cancer rises, so do the costs to treat it.
- Proven skin cancer prevention programs could save \$250 million by 2030 according to CDC.

# Community Perspectives

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Dr. Kim Eickhorst, MD, Dermatology Associates of Western Connecticut

- How important is it to promote skin cancer awareness in this community?
  - Super important. There is so little awareness. People don't realize that sun damage is cumulative and not reversible. People downplay skin care and only take it seriously once they get skin cancer.
- What are some common misconceptions patients have about their risks in getting skin cancer?
  - People don't understand that skin cancer can occur anywhere on the body. It can occur on their feet, genitalia or buttocks which are normally covered.
  - There is a misconception on what melanoma looks like. It doesn't present the same way each time.
- As a clinician what has been the most effective way in preventing skin cancer?
  - Patient education.
  - Skin checks with primary care physicians (PCP) are not enough. PCPs are dealing with so many issues that they may not be able to do thorough skin checks. Sometimes a PCP might see something on a patient's skin and then refer them to a dermatologist. The lesion turns out to be benign but then I spot something that turns out to be more serious and is not the lesion that prompted the visit in the first place. Therefore , I recommend patients to get an annual skin check from a dermatologist.

# Community Perspectives

Interview with Dr. Eickhorst continued...

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- Would an educational poster in the waiting/exam room be beneficial for patients in a PCP's office? Would you use a poster to educate patients?
  - Without a doubt. I use one poster that demonstrates melanoma and I get asked about it all the time because the visuals jump out at the patient. So patients do pay attention when they see something that catches their eye and I use it to educate them.
- What items should be included on the poster?
  - Educating patients on the three common types of skin cancer because people are focused on melanoma but basal cell carcinoma is the most common of the skin cancers.
  - Educating patients on different presentations of melanoma. I tell patients to go home and google images of melanoma so they can see how it presents.
- What specific advice do you give patients in preventing skin cancer?
  - I tell patients to not be sun scared but be sun smart. Limit activities to the poles of the day (morning and night). Use sunscreen in addition to hats and protective clothing.
- In 2013, CT passed a law banning the use of tanning beds by minors under the age of 17. What other public health safety measures could potentially be as influential in decreasing skin cancer rates?
  - Better education in schools because teaching kids when they are young sets a precedent. Teaching kids about it and making it a primary part of their health curriculum would be great. In Australia and New Zealand they can't go to the playground without a hat and sunscreen is encouraged but the schools here won't allow you to put sunscreen without going to the nurse first and requesting it.

# Community Perspectives Continued....

CARMELA LUZI, PA-C, DERMATOLOGY ASSOCIATES OF WESTERN CONNECTICUT

DR. ROBERT MASCIA, MD, BROOKFIELD FAMILY MEDICINE

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- How important is it to promote skin cancer awareness in this community?
    - Necessary. A lot of people brush off skin cancer and underestimate its impact.
  - What are some common misconceptions people have about their risks of getting skin cancer?
    - People aren't accurate in assessing how much sun exposure they have been getting.
    - People should protect themselves 365 days of the year not just when they go to the beach.
    - People with darker skin don't think they are at risk but they are still at risk.
  - Would an educational poster be beneficial? Would you use it?
    - Yes, there is a lack of education of skin cancer. I would use it.
  - What would you put on the poster?
    - ABCDEs of melanoma. Advise people to use sunscreen and sun protective clothing including hats
  - In 2013, CT passed a law banning the use of tanning beds by minors under the age of 17. What other public health safety measures could potentially be as influential in decreasing skin cancer rates?
    - Adding UV index to weather reports in the morning.
    - Making sun safety a mandatory part of the health curriculum in schools.
- How important is it to promote skin cancer awareness in this community?
    - Very important.
  - What are some common misconceptions people have about their risks of getting skin cancer?
    - People don't realize they can't just apply sunscreen once in the morning and be protected for the rest of the day.
  - Would an educational poster be beneficial? Would you use it?
    - Yes, it would help.
  - What would you put on the Poster?
    - Effects of sun exposure. Wearing sunscreen, proper clothing and being in the in shade. If people are engaging in water activities, then they should reapply sunscreen frequently.
  - In 2013, CT passed a law banning the use of tanning beds by minors under the age of 17. What other public health safety measures could potentially be as influential in decreasing skin cancer rates?
    - Education about sun safety in the schools would be beneficial.

# Intervention and Methodology

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## ○ Intervention:

- There is a growing need to increase awareness of skin cancer through education on how to detect it and ways patients can prevent it in this community based on interactions with patients and talking to community experts.
- Posters in the waiting/exam room can capture the patient's attention with strong visuals and pertinent information so patients start paying attention to their skin. It can also serve as an instructional aid for physicians to use. There are a lot of issues patients deal with at a PCP's office so a poster can be a much needed reminder for patients to continue to self-monitor their skin when there isn't enough time for a thorough skin exam. Patients would also have the option of taking home a handout which is the exact copy of the poster if they want to.
- Created a poster that highlights important points that were gathered from community interviews and additional information drawn from online resources on skin cancer:
  - All three types of skin cancer will be demonstrated with information and visuals for people to learn how to detect it.
  - Melanoma also presents differently so educating patients on the different types with visuals is important.
  - Patients are encouraged to use tools like the ABCDEs to keep track of their moles and poster serves as reminder with each visit.
  - Patient should also have useful tips on how to protect themselves from the sun because sun exposure is linked to all three types of cancer.

## ○ Methodology:

- Patients were randomly selected in the waiting room at Brookfield Family Medicine and given a handout which is the exact replica of the poster that would hang on the exam room wall and patients were surveyed on the effectiveness of the poster by:
  - Assessing their current sun safety behaviors
  - Assessing the usefulness of the poster in learning how to detect and prevent skin cancer
  - Assessing if the poster has influenced them to incorporate more sun safety behaviors in their lives



# Intervention:

## Detection and Prevention of Skin Cancer

### Basal Cell Carcinoma (BCC)

- #1 leading cause of skin cancer
- Uncontrolled growth of basal stem cells of skin most commonly caused by cumulative sun exposure
- Persistent shiny, pink pearly ulcerated lesion with rolled borders and blood vessels: it's the pimple that won't go away!
- Commonly found on face, scalp, upper lip, neck, ears, shoulders and back



### Squamous Cell Carcinoma (SCC)

- 2<sup>nd</sup> leading cause of skin cancer
- Uncontrolled growth of squamous cells, most abundant cells of skin most commonly caused by cumulative sun exposure
- Persistent scaly, red patch with irregular borders and crusting
- Commonly found on face, ears, lower lip, neck, hands, arms, legs



### Actinic Keratosis (AK)

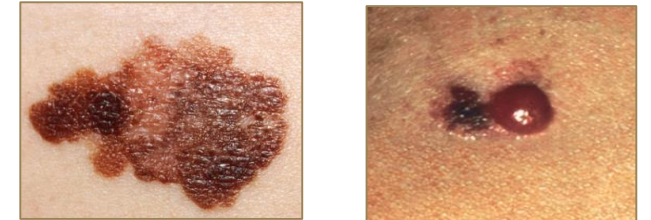
- 40-60% of SCC develops from these precancerous lesions
- Rough, scaly lesions
- Commonly on face and back of hands



### Melanoma

- 3<sup>rd</sup> leading cause of skin cancer
- Leading cause of skin cancer deaths
- Uncontrolled growth of melanocytes, pigment producing cells
- Risk factors:
  - Intense, intermittent sun exposure
  - Family history of melanoma
  - Over >100 Moles on body

### 5 Types of Melanoma



Superficial Spreading

Nodular



Lentigo Maligna



Acral Lentiginous



Amelanotic Melanoma

### Don't Be Sun Scared, Be Sun Smart!

- Seek shade especially from 10-4pm when sun's rays are strongest
- Wear protective clothing including wide-brimmed hats and UV-blocking sunglasses
- Use sunscreen with SPF of 15 or higher every day. Apply 30 minutes before sun exposure and reapply every 2 hours
- Avoid tanning beds
- Schedule annual skin examination from a dermatologist
- Examine your own skin from head-to-toe every month and keep track of suspicious moles with the ABCDEs of Melanoma

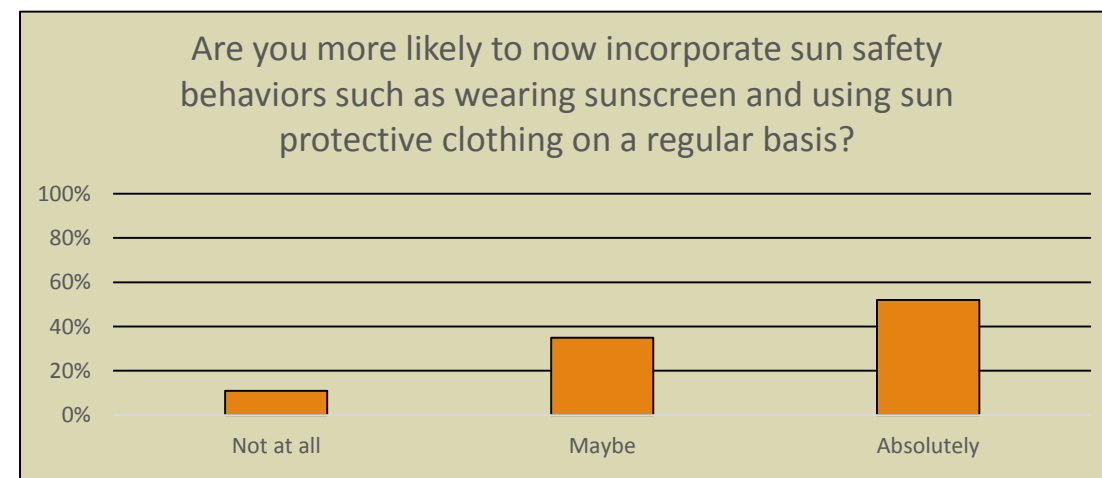
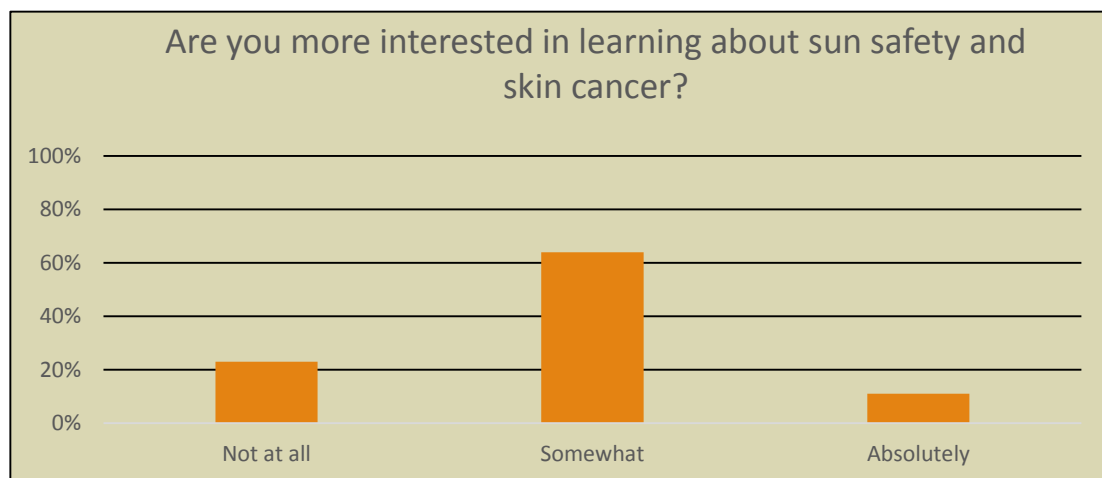
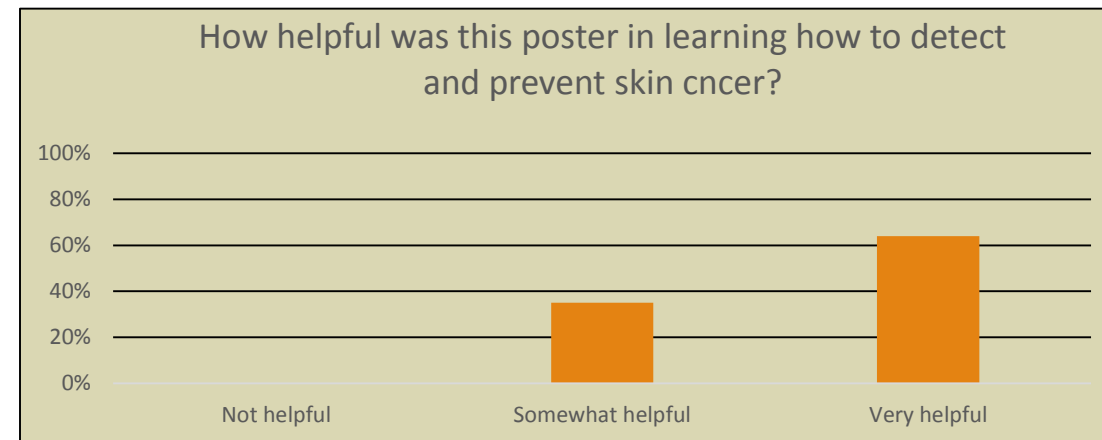


Reference: <http://www.skincancer.org/>

### Monitor Moles with the ABCDEs

Benign		Malignant
	Asymmetry of mole	
	Border is irregular	
	Color is varied	
	Diameter is >6mm	
	Evolution of mole	

# Results of Intervention



# Effectiveness of the Intervention and Limitations

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## ○ Effectiveness:

- The goal was to promote skin cancer awareness through education using a poster which was accomplished.
- The poster was well received by Dr. Mascia at Brookfield Family Medicine.
- The response from the poster was positive and effective based on the quantitative and qualitative feedback from patients' surveys and verbal feedback:
  - 64% of patients rated the poster as "very helpful" in learning about how to detect and prevent skin cancer.
  - 75% of patients were "somewhat" and "absolutely" more interested in learning more about sun safety and skin cancer after reading the poster.
  - 54% of patients would "absolutely" incorporate sunscreen and other sun safety behaviors on a regular basis after reading the poster.
  - Many patients shared how much they appreciated learning more about skin cancer through the information and visuals on the poster.

## ○ Limitations:

- There was no feedback on poster from the local community dermatologist, Dr. Eickhorst, due to time constraints
- Small sample size of 17 patients surveyed didn't allow for a more robust response
  - Was not able to survey younger children and adolescents due to lack of availability
- Was not able to test poster's effectiveness as an instructional aide during visits
- In addition, it has yet to be seen how much of an impact this poster will have on skin cancer detection and rates without more extensive surveying and tracking incidence of skin cancer in the local area.

# Recommendations for Future Interventions

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- Assess the effectiveness of using the poster as an instructional aide in increasing skin cancer awareness
- Assess how effective it is in increasing awareness when the poster is given as a smaller handout for patients to take home with them
- Educate children and teens in schools on sun safety and skin cancer as part of their health curriculum
- Create a smart phone application that has a mole tracker so patients can have an easier time in monitoring them
- Create a kid friendly poster for exam/waiting room in the PCP's office

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# Interview Consent

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Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes  / No

Name: Dr. Kim Eickhorst, MD, Dermatology Associates of Western Connecticut

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes  / No

Name: Dr. Robert Mascia, MD, Brookfield Family Medicine

Thank you for agreeing to be interviewed. This project is a requirement for the Family Medicine clerkship. It will be stored on the Dana Library ScholarWorks website. Your name will be attached to your interview and you may be cited directly or indirectly in subsequent unpublished or published work. The interviewer affirms that he/she has explained the nature and purpose of this project. The interviewee affirms that he/she has consented to this interview.

Yes  / No

Name: Carmela Luzi, PA-C, Dermatology Associates of Western Connecticut