

“Healthy Skin for Everyone” Improving Skin Cancer Access by Volunteer Dermatologists

Pfizer Grant for Learning and Change
American Academy of Dermatology Collaboration

Palm Beach County Society for Dermatology and Cutaneous Surgery

President: Lewis Kaminester, M.D.

Vice President: Scott Fayne, M.D.

Treasurer: Shauna Kranendonk, M.D.

Secretary: Larissa Scanlon, M.D.

Authors:

John Strasswimmer, M.D., Ph.D., Member, Palm Beach County Society for Dermatology and Cutaneous Society; President of Dermatology Medical Missions

Audrey Jacobsen, M.D., M.P.H. Candidate, University of Miami Miller School of Medicine

C.B. Wohl, M.P.H., Clinic Director, Caridad Center of Palm Beach County, Florida

Jezabel Maisonet, R.N., Prevention, Education and Treatment Program Director, Caridad Center of Palm Beach County, Florida

Lewis Kaminester, M.D., President of the Palm Beach County Society for Dermatology and Cutaneous Surgery

Brief summary:

For the past decade, members of the Palm Beach County Society for Dermatology and Cutaneous Surgery have volunteered in community-based clinics, providing free dermatologic care to underserved, uninsured and minority populations. Despite widespread outreach efforts, patient access to dermatologic care remains limited by socioeconomic and cultural barriers. Physician access to providing care can also be limited by these factors. We request for funding to develop a research-tested intervention that address these barriers that dermatologists can use across the United States to engage in effective volunteer initiatives in underserved, minority communities. In our program, community health workers will teach an interactive workshop aimed at increasing skin cancer awareness and promoting sun protective behaviors. A unique mobile health (mHealth) component will promote lifestyle changes and remind participants to seek care if they notice a suspicious spot. The program will be easily disseminated, cost-effective and culturally appropriate, making it a valuable initiative for AAD members interested in providing improved access to care in underserved populations.

Palm Beach County Society
for Dermatology and
Cutaneous Surgery



Goals and Objectives

The Palm Beach County Society for Dermatology and Cutaneous Surgery, the largest county organization in Florida, is dedicated to organizing local dermatologists to improve physician education, inspire advocacy and encourage action in the community. For the past decade our members have provided countless hours of free dermatology care to underserved and minority patients in local clinics.

In Palm Beach County, more than 25% of the population under age 65 is uninsured. Despite the implementation of the Affordable Care Act, our volunteer dermatologists have *not* observed improvements in patient access to dermatologic care. This may be due to limited provider panels promoted by insurance companies in addition to patient socioeconomic and cultural barriers to care. We seek to improve that access, by helping provide dermatologists with tools to care for and educate these patients.

In our experience volunteering at free clinics, there are two main barriers to accessing dermatologic care: structural and cultural/socioeconomic factors. First, infrastructure, supplies, and medications for skin disease treatments are limited and often de-prioritized by other medical conditions. Second, cultural differences, low risk perception, and lack of education prevent patients from seeking these services. As such, patients often access these volunteer services too late, when skin cancers are locally advanced and even metastatic, a frustrating situation for AAD volunteer dermatologists. It is this latter condition that we seek to improve.

We aim to develop an evidence-based skin cancer education and awareness program for minority, uninsured and immigrant communities that can be utilized by dermatologic societies across the United States. There are currently no widespread research-tested intervention programs for this population yet; our program will fill that gap. Our program will be structured such that it can be easily disseminated to any clinic, neighborhood resource center, or non-profit organization in the USA. It will be cost-effective for the adopting organization and available in three languages: English, Spanish and Haitian Creole. The project is divided into a research phase and project implementation phase. The research portion is already IRB approved by the Dermatology Department at the University of Miami Miller School of Medicine and the Caridad Center, the largest free clinic in Florida, where the research will be carried out.

Specific objectives of our project are to:

- Conduct a comprehensive needs assessment to establish skin cancer knowledge, risk perception and current sun protective behaviors in underserved populations
- Develop a culturally appropriate education program for skin cancer prevention in minority, uninsured, immigrant communities

- Utilize mobile health (mHealth) to reinforce the program and motivate participants as they make lifestyle changes
- Develop an accompanying online training module for community health workers
- Integrate patients in-need to the existing volunteer dermatology services in Palm Beach County
- Roll out intervention to centers staffed by AAD members across the United States who serve these target populations

By completing these objectives, we will improve patient knowledge and access to care and provide physicians with an effective program to promote education and sun safe behaviors in underserved populations.

Skin cancer is increasingly being recognized as a significant health risk for minority, uninsured and immigrant populations in the United States. There is a large disparity in dermatologic services available in these populations and a serious lack of knowledge among patients about how to recognize and prevent skin cancer. In 2010, a Haitian man presented to the Caridad Center, the largest free clinic in South Florida with a large, non-healing wound on his foot and was diagnosed with advanced stage melanoma (Figure 1). He unfortunately died soon after. Another patient, a Hispanic woman, was also diagnosed with an advanced melanoma of the foot (Figure 2), but has survived over a year and a half though improved comprehensive care. These patients could have avoided death and amputation had they received the access to care they deserved earlier.



Figure 1: Melanoma on the foot of a Haitian man



Figure 2: Melanoma on the foot of a Hispanic woman

Unfortunately, these cases are all too common. The incidence of melanoma in the Hispanic population has risen 22% since 1992.¹ Despite this rise in incidence, melanoma continues to be diagnosed at later stages in minority groups, with Hispanics, African Americans, American Indians and Asians more likely to present with stage IV and thicker melanomas than whites.^{2,3} Due to this apparent delay in

diagnosis, Hispanic and African-Americans carry a large burden of late-stage melanoma and studies report poorer survival rates for these populations.³

Lower education level, minority status and poor socioeconomic status also have a negative impact on risk perception and risk-modifying behavior.⁴ Minorities are less likely to perform self-skin checks and are less likely to ever have been to a doctor for a total body skin exam (TBSE).⁵ Interestingly, rates of TBSE in the general population have increased between 2000-2010, but this increase has only been found to be significant in non-Hispanic whites.⁶ The reasons for these disparities is not clearly defined, but has been attributed to factors including reduced access to health care, delayed seeking of treatment, less awareness or lower risk perception, and lack of culturally appropriate interventions.⁷

Our project is a crucial step in eliminating dermatologic disparities in uninsured, minority and immigrant communities. We want to empower patients to make informed healthcare decisions and improve access to volunteer AAD members.

Project Design, Methods and Evaluation

Timeline

September – October 2015

- Conduct comprehensive needs assessment survey with target population
- Develop pilot program materials

November – December 2015:

- Pilot program with 50-100 participants at the Caridad Center in Boynton Beach, FL to assess efficacy
- Analysis of results from pilot program

January – February 2016

- Professional video and workshop material production
- Recruit other centers to expand program

March – November 2016:

- Expand program to other centers to assess program effectiveness and fidelity

December 2016-May 2017

- Final longitudinal survey collection
 - Wrap up project and finalize product
 - Advertise product on a wide scale
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Goals of the project

1. Conduct a comprehensive needs assessment to establish skin cancer knowledge, risk perception and current sun protective behaviors
2. Develop a culturally appropriate education program for skin cancer prevention in minority, uninsured, and immigrant communities
3. Utilize mobile health (mHealth) to reinforce the program and motivate participants as they make lifestyle changes
4. Develop an accompanying online training module for community health workers
5. Roll out intervention to centers and AAD members across the United States who serve our target population

Project design

Comprehensive needs assessment to establish community skin cancer knowledge, risk perception and current sun protective behaviors

A survey of 200 people is already underway at the Caridad Center in Boynton Beach, FL. All survey participants are uninsured and at least 200% below the federal poverty level, considered to be less than \$48,500 for a family of four. Questions are designed to assess the current knowledge, risk perception and sun protective behavior in our target population. The survey tool was designed using other validated skin cancer questionnaires, but altered to meet the needs of a population with low healthcare literacy. The survey has been translated into Spanish, English and Haitian Creole. Data collection will be complete by the end of October 2015.

Preliminary results from the assessment (n=83) indicate that utilization of dermatologic services is low in our target population. 79.5% (n=66) of our respondents have never seen a dermatologist as an adult and 74.7% (n=62) say they've never received any information or education on skin cancer. 59% (n=49) report never or rarely checking their skin for suspicious spots. Sun protective behaviors also appear lacking. When outside on a warm sunny day for more than one hour, 59% (n=49) never or rarely use sunscreen, 44.6% (n=37) never or rarely use a long sleeve shirt, and 44.6% (n=37) never or rarely use a hat. Lastly, 30.1% (n=25) of participants believe that people with dark skin cannot get skin cancer. Survey collection will continue until 200 responses are collected and then we will conduct a comprehensive statistical analysis.

Develop a culturally appropriate education program for skin cancer prevention in minority, uninsured and immigrant communities

Community health workers will teach a 20-30 minute interactive workshop to participants covering the following topics: how the sun damages the skin, who is at risk, what skin cancer looks like, the ABCDE's of melanoma, how to

do a self skin check and how to prevent skin cancer. The curriculum will include a short testimonial film created by our team featuring Hispanic and black skin cancer survivors, a PowerPoint presentation, group activity, and a goal setting exercise. Participants will receive sun-protective items such as sunscreen, hats or long-sleeve shirts for their participation.

Community health workers, also called “promotores de salud” in the Hispanic community, are recognized as important contributors in reaching vulnerable, low-income and underserved populations, both in the United States and in low and middle income countries. In Hispanic populations in the United States, “promotores” have been proven to be successful in several campaigns, including increasing cervical cancer screening among Hispanic women who have never or rarely had a pap smear⁸ and lowering HbA1c levels in patients with type 2 diabetes⁹.

The program will be tested on a pilot group of 50-100 individuals at the Caridad Center in the fall and winter of 2015 to evaluate our program materials and make any necessary adjustments before program expansion. Participants will complete a pre and post-test survey the day of the workshop, as well as a 3-month follow up survey to assess the longitudinal impact of the program.

After the pilot, we aim to expand our intervention to at least 5 other centers, with a goal of reaching 500 additional participants. The expanded access program will also utilize pre and post-test surveys in addition to a 3 and 6 month follow up survey to further assess longitudinal impact.

Activities to be funded by this grant include: production of testimonial film, professional design of workshop materials, sun-protection gear for program participants, translation of materials, purchase of any necessary stock photos for material development, and compensation for research assistants, biostatisticians and community health workers

Utilize text message reminders to reinforce the program

We will use an online text messaging service to encourage participants to wear sun protective clothing, check their skin for suspicious spots, and ask their doctor if they find anything abnormal. This will reinforce the key points from the workshop to help support and motivate participants as they make critical lifestyle changes.

Mobile health (mHealth) initiatives are rapidly expanding and becoming an easily accessible, cost effective method to communicate health related messages to at risk populations. Cell phone ownership in the United States is widespread, with 91% of the US adult population owning any type of cell phone. Even among low-income populations (<\$30,000), 86% of adults have

a cell phone. In addition, 87% of Hispanic adults use text messaging to communicate.¹⁰

However, there is still limited data available on the effectiveness of mHealth programs. Many studies simply are not powered to show statistical significance, but in sufficiently powered studies, results are promising. Our program will add to the growing body of data on the impact of mHealth in public health interventions.

Activities to be funded by this grant include: subscription to our selected text messaging service; compensation for community health workers

Develop an accompanying training module for community health workers

We will develop an online training module for community health workers to become certified in educating their patients about skin cancer and sun protection. Community health workers will complete a series of video and quiz modules to prepare them to teach the workshop. The modules will be available in Spanish, English and Creole. As the occupation of community health worker is becoming more regulated, our training module will meet new guidelines for health worker certification and continuing education credit.

Curriculum for the videos will be reviewed and approved by expert dermatologists in the field of skin cancer. Videos will be taught by medical students and professionally filmed and edited.

A dedicated website will be created by a professional website developer for centers (i.e. health clinics, community centers) to sign up. Centers will be able to track the progress of their community health workers to verify training completion. The program will be free for any center that would like to participate.

Activities to be funded by this grant include: professional videographer to record and edit training videos, web designer to develop the program's dedicated website

Roll out intervention to centers and AAD members across the United States that serve our target population

We aim to publicize our program to centers across the United States that also serve minority, uninsured and immigrant populations. We will contact local and state community health worker organizations, public health organizations and dermatology societies to promote the program.

We will also submit our program to the National Cancer Institute for consideration to be included in their online database of Research Tested Intervention Programs.

We will also present the results of our project at public health and dermatology conferences across the United States as well as submit the project results for publication in leading peer-reviewed journals.

Activities to be funded by this grant: conference expenses, open-access journal fees

Palm Beach County Society for Dermatology and Cutaneous Surgery

The Palm Beach County Society for Dermatology and Cutaneous Surgery is largest county organization in Florida. For more than four decades, we have organized local dermatologists to improve physician education, advocacy, and action. Members are required to meet member definition by the AAD. Our members serve in the leadership of our state societies, on the Florida Board of Medicine, and in Academic positions.

Dermatology Medical Missions

Dermatology Medical Missions is a 501 (c)(3) not-for-profit organization incorporated in 2011. DMM is dedicated to providing dermatology and

related health care services to underserved groups of people in the United States and abroad. DMM regularly supports AAD volunteer members serving in the United States at the Caridad Clinic and overseas in Africa and in Grenada, West Indies. John Strasswimmer, M.D., Ph.D. is the President of Dermatology Medical Missions. Dr. Strasswimmer also serves on the AAD Education and Volunteers Committee.

The Caridad Center

The Caridad Center is a non-profit organization dedicated to providing comprehensive healthcare services to the uninsured, working poor families of Palm Beach County. It is the largest free clinic in Florida and one of the top three largest in the United States. With hundreds of volunteers, Caridad is able to conduct over 26,000 patient visits a year, reaching individuals who would otherwise not receive care, or end up at the emergency room with advanced disease.

In addition to their free clinics, Caridad is committed to providing education and outreach in the community through their well-established Prevention Education and Treatment (P.E.T.) program. Jezebel Maisonet R.N., is the director of the P.E.T. program and we are working closely with her and other community health workers at the Caridad Center to develop our intervention.

Consultants/experts needed to accomplish this project

Videographer

- Will film and edit our mini documentary/testimonial film featuring Hispanic and black skin cancer survivors
- Will film and edit the online training videos for community health workers

Website developer

- Will design a website for centers to access the training module and program materials

Graphic designer

- Will assist in designing professional program materials

Biostatistician

- Will assist with results analysis from the pre and post-test surveys and longitudinal follow up surveys

Spanish and Creole translators

- Will translate all program materials into Spanish and Creole

Experts in public health intervention development

- Will be consulted for program design and implementation strategies

Delivered product

Online training module for community health workers

- Taught in English, Spanish and Haitian Creole via a series of video and quiz modules
- Will meet new CHW continuing education and certification standards
- Free for any center that would like to participate

Dedicated program website

- Comprehensive instructions on program implementation
- All program materials available for free download to participating centers
- Links to American Academy of Dermatology and other resources for participating centers to utilize

Workshop materials

- Culturally appropriate education materials available in English, Spanish and Haitian Creole
 - PowerPoint
 - Workshop scrip for community health workers
 - Mini documentary/testimonial film featuring Hispanic and black skin cancer survivors to be shown as part of the class and also program promotion
- Available on the program website free to download for any center that requests to participate

Outcome measures

- Impact analysis
 - Pre and post test surveys to workshop participants
 - 3 month follow up for pilot program participants
 - 3 and 6 month follow up for expanded access program participants
- Assessing community health worker's experience with the program
 - Pre and post test surveys taken with the training module
 - Follow up survey after teaching the workshop to program participants
- All data will then analyzed by a biostatistician
- Public health experts will be consulted to review the results using the RE-AIM framework
 - The RE-AIM framework is a tool designed to enhance the quality, speed and public health impact of research initiatives
 - RE-AIM stands for:

- REACH your intended target population
- EFFICACY or EFFECTIVENESS
- ADOPTION by target staff, settings, or institutions
- IMPLEMENTATION consistency, costs, and adaptations made during delivery
- MAINTENANCE of intervention effects in individuals and settings over time

Project Timeline/Budget Timeline

Conduct a comprehensive needs assessment to establish skin cancer knowledge, risk perception and current sun protective behaviors

- Develop needs assessment survey in Spanish, English and Creole: 25 hours (launched Summer 2015)
- Administer survey to 200 individuals who meet survey criteria at the Caridad Center in Boynton Beach, FL: 25 hours (launched October 2015)
- Personnel costs: none (project already near completion)
- Printing costs: none (materials already printed)
- Consult biostatistician from the University of Miami Biostatistics Collaboration and Consulting Core (BCCC): 5 hours at \$105 per hour (November/December 2015)

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