

Preventing Skin Cancer by Reducing Exposure to UV Light through Educational and Policy Approaches in Occupational Settings

Skin cancer is one of the most common cancers in the United States. The strongest, preventable risk factor for developing skin cancer is exposure to the sun's ultraviolet (UV) rays. However, at least 50% of adults do not protect themselves adequately from UV exposure. In 1998, only 31% of adults surveyed reported wearing protective clothing, staying in the shade or using sunscreen. The question is what are effective strategies to improve sun protective behaviors among adults in occupational settings?

A systematic review of published studies, conducted on behalf of the Task Force on Community Preventive Services by a team of experts, found that there was insufficient evidence (i.e. studies) to determine whether or not educational and policy approaches in occupational settings are effective in: 1) improving "covering up" behavior [i.e. wearing protective clothing such as a shirt, long pants, and hat], or 2) increase in shade use or staying out of the sun during peak UV hours]. Sunscreen use was considered a secondary outcome meaning that a change in sunscreen use alone would not result in a recommendation but it should have accompanied one of the two recommendation outcomes. It is important to remember that **this finding does not mean this intervention does not work**, but rather indicates that additional research is needed to determine its effectiveness.

Background on educational and policy approaches in occupational settings

- Single and multi component interventions were designed to increase sun-protective knowledge, attitudes, intentions, and behavior among workers
- Interventions reviewed within this category included one or more of the following:
 - Surveys and questionnaires to assess knowledge, attitudes, beliefs, intentions, and behaviors
 - Sun-safety training of safety officers, managers, or outdoor recreation and swimming pool staff
 - Peer leader modeling of sun-safe behaviors
 - Education using didactic instruction or brochures
 - Sun-safety lessons
 - Interactive activities
 - Provision or promotion of sun-protective gear or products (e.g. wide brimmed hats, sunscreen)
 - Screening assessments by dermatologists

Findings from the systematic review

Search results:

- 6000+ titles and citations screened
- 159 articles reviewed
- 85 studies included in one of the 9 interventions reviewed by the Task Force
- 8 qualifying studies
- In its review of available studies on the effectiveness of this intervention, eight (8) studies were identified that addressed the effectiveness of educational or policy approaches in occupational settings in decreasing sunburns or improving sun protective behaviors. These studies were not considered sufficient for the Task Force to base a recommendation, given the small number of studies that measured key behavioral or health outcomes such as improvements in worker sun protective behaviors and decreases in sunburns or other adverse effects of UV light exposure.
- Along with the issue of effectiveness, other issues regarding this intervention were identified during this review. These include:
 - What specific attributes of this intervention contribute to effectiveness?
 - How can this intervention be implemented with minimal administrative burden and little disruption to the primary mission of the employer?
- Additional detail regarding key components of research in this area that could be improved so as to increase the body of evidence of effectiveness is available as part of a broad set of research questions.

Action Items

- Use this finding and suggestions for improvement in research components and contact information from [Cancer Control PLANET](#) to find local cancer prevention partners to conduct or seek resources for further research

Publications:

- **MMWR/Recommendations and Reports** – Fall 2003. A summary report on findings.

The Guide to Community Preventive Services (Community Guide) provides recommendations on population-based interventions to promote health and to prevent disease, injury, disability, and premature death, appropriate for use by communities and healthcare systems. For more information about the Community Guide (including links to publications and a variety of resources) see

www.thecommunityguide.org and for more information about Task Force findings on skin cancer prevention see www.thecommunityguide.org/cancer/

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