

Reviewer's report

Title: Reducing Ultraviolet Radiation Exposure Among Outdoor Workers: State of the Evidence and Recommendations

Version: 2 Date: 9 April 2007

Reviewer: Alan C Geller

Reviewer's report:

General

This is a well-researched review of an important field in skin cancer prevention. The study could be strongly improved with more interpretation of findings and a more proactive attempt to 'kick-start' new research in the field.

1) Page 2-this is an issue for the editors and the authors-it appears that 1/3 of the manuscript is devoted to the Community Preventive Service Guide-has not this review been already published? Is there more valuable new information that could be provided instead?

2) While the authors can not fully describe sun exposures in every specific workplace, they should briefly describe different work scenarios and how exposures might occur or changes in the workplace can be made. They have reviewed postal workers, construction workers, ski patrols etc. However if one is considering a comprehensive approach to workplace safety, other issues should be considered: these include seasonal outdoor workers (high risk because of intermittent exposure and little organizing capacity), workers in unions vs. non-unions, workers in Federal agencies, self-employed (small farms) vs. employee-driven workplaces

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Major

1) Again, the editors and authors should agree on the best strategy for summarizing the evidence-based review previously written-a) keep intact or b) delete altogether, or c) discard the methodology (refer to the earlier study) and go right to the brief results of their review? (preference)

2) This reviewer would argue that responses to the following questions would be more important than fully re-reviewing a previously written report-

Useful new, brief paragraphs should summarize:

a) Based on what was learned from the evidence review which lists almost all studies as fair, what can be done to improve the design and evaluation of future studies?

b) What do the authors consider to be the key parts of an ideal sun protection strategy at a large outdoor workplace?

c) For occupational health and cancer prevention experts, the authors should provide guidance as to the next steps needed to provide hats, shirts, and sunscreen to at least outdoor unionized workers for starters, should this include state and federal legislation? Union-management contract language and enforcement?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Minor

- 1) Page 1-all of the numbers in paragraph 1 should be updated to reflect 2007 numbers
- 2) Page 2-while the authors correctly describe the link between outdoor work and NMSC, they do not discuss studies that suggest a possible protective effect of outdoor work and melanoma
- 3) Page 3-there are a couple of points that seem self-evident-employees who predominantly work outdoors receive much more sun exposure than others who work only part of their time outside-this sentence and the first sentence in this paragraph can be deleted
- 4) With a very shifting workforce, it is possible that outdoor workers are no longer spending many years in their occupations-this should be further confirmed with other work studies and ones done since 1995
- 5) Page 7-what are some of the differences in the workplace and environment for transportation workers compared with construction workers-why are the sun protection rates so much higher? Was there any speculation on this in the study that is cited?
- 6) Page 7-the authors should clarify whether workers in Canada are wearing clothes intentionally related to improving sun protection or is this part of their regular work garb?
- 7) Page 9-while it may be that skin cancer patients are more likely to be using sun protection, it is also possible that these are older (vs. younger) workers more predisposed to using sun protection
- 8) page 10-the authors make an excellent point that individual employees may be nearly powerless. This would be an important place for the authors to point out the need for employer responsibility in providing sun protection for their workforce

A number of items to be added:

- a) The 2006 Buller studies should be added
- b) The 2006 Mayer et al AJPH study should be added
- c) At least three major unions/workplaces have developed sun protection brochures and guidelines-Laborers Health and Safety Fund of North America, US Customs and Border Protection, Department of Agriculture, Forest Service. Also OSHA has a sun safe checklist for all workers-their website addresses could be included in a small box

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.