OUTDOOR WORKER SUN PROTECTION PROJECT:
A mixed methods intervention to improve sun safety among outdoor workers

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Australia and Skin Cancer

Queensland, Australia has the highest rates of skin cancer in the world. 2 out of 3 residents will be diagnosed with a skin cancer before the age of 70. Outdoor workers are at high risk due to excessive exposure to ultraviolet radiation (UV). Efficient use of sun protection while at work is thus essential. Previous work has largely focused on one industry type, and tested a wide variety of interventions.
Australia’s UV Rates in Summer

Average noon clear-sky UV Index Annual

Based on a gridded analysis from the Bureau of Meteorology’s UV forecast model using NCEP/NCAR monthly ozone data sets 1997-2000
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Australia’s UV Rates in Winter
Outdoor Worker Sun Protection Project

- Aim: identify the most effective sun protection strategies for outdoor workers
- Use existing resources as much as possible
- Pre-post design
- 18 month intervention to improve sun protection in outdoor workplaces
- Qualitative and qualitative methods of data collection
Workplaces Involved

14 workplaces
- Construction (n=4)
- Farming (n=4)
- Local Government (n=2)
- State Government (n=4)
- South West Qld
- North Qld
- Far North West Qld
- South East Qld
Mixed-Methods approach, what was involved?

- Policy Analysis
- Participatory Action Research (PAR)
- Survey Research
- Workplace Site visits
- Worker Discussion Groups
PAR involves:

• A focused, *heads together* way of thinking.
• It values people’s inputs (employees and employers).
• Takes advantage of existing skills and resources and stimulates innovation.
• It is a discovery phase, and properly supported, can be a key strategy in developing a *culture of continuous improvement* in workplace settings.
• Supported development of a **Tailored Sun Protection Action Plan**, implemented over an ~ 14-month intervention period.
  – Focused on sun safe strategies in six key areas.

Photo1: Participating workers
Baseline Discussion Groups

- Two researchers visited each worksite to conduct the discussion group with workers to gather their views and perspectives on sun safety.
- Each workplace identified workers who would be available — e.g. were rostered on, working in close enough vicinity of the discussion group location
- 10-50 minutes in length
- 3 to 45 workers participated per discussion group

Example prompt questions:
- What do you do to protect yourself from the sun at this workplace?
- What do you think of sun safety personally?
- How fussy is this workplace about sun safety?
- What tasks do you do?

Based on all the data collected, workers responses assisted the development of the tailored sun safe action plan.
Six Key Sun Protection Action Plan Strategies

Emerging Themes:
- Policy
- Environment
- PPE
- Education
- Skin examinations
- Role modelling
Emerging Themes - Policy

Familiar themes among workers:

- Sun safety as being the “worker's individual responsibility”
- Some discrepancies in the perceptions of the workers, compared to the view of the workplace representatives (e.g. How much value placed on policy, whether policy was enforced, whether role modelling was present...)
- In larger workplaces, especially Government Departments, workers were more aware and followed sun safe practices and policies
Emerging Themes – Environment, PPE, Education

**ENVIRONMENT** 🌱
- Impractically of finding or creating artificial shade
- Workers try to find shade at break times – sometimes difficult

**PPE** 🧥
- Too hot/uncomfortable
- Impractical because of work tasks (e.g. long pants hinder concreting, sunscreen slippery on roofs)

**EDUCATION** 📖
- Sun safety is “common sense”
- Only received limited sun safety education at work (e.g. toolbox talks)
Emerging Themes – Role Modelling, Skin examinations

SKIN EXAMINATIONS

• The majority of workers agreed skin examinations at the workplace would be a good idea

ROLE MODELLING

• Management need a day in our ‘outdoor worker’ shoes
• Bosses could set better examples
Conclusions

- Discussion groups provided a rich picture of what works and does not work in the workplaces.
- Specific characteristics of the workplace, the outdoor work tasks, and workers’ knowledge and attitudes influence workers’ willingness to engage in sun safety measures.
- Workplace polices frequently do not filter down sufficiently.
- Workers need to be engaged in formulating the policies to make them relevant and willing to engage.

Images courtesy of Queensland Health 2013