

Applying Communication Principles from the Diffusion of Innovations Theory for Promoting Occupational Sun Protection



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Occupation and Skin Cancer

- Substantial sun exposure occurs on the job for over 9 million Americans who work outdoors.
 - Spend 4-8 hours per day outdoors
 - Work outdoors for many years
- Skin cancer is associated with outdoor work.
 - RR for NMSC is 2.47 for individuals working primarily outdoors.
 - Melanomas of head, face and neck may be most common in outdoor workers.
- Sun protection is inadequate among many outdoor workers.



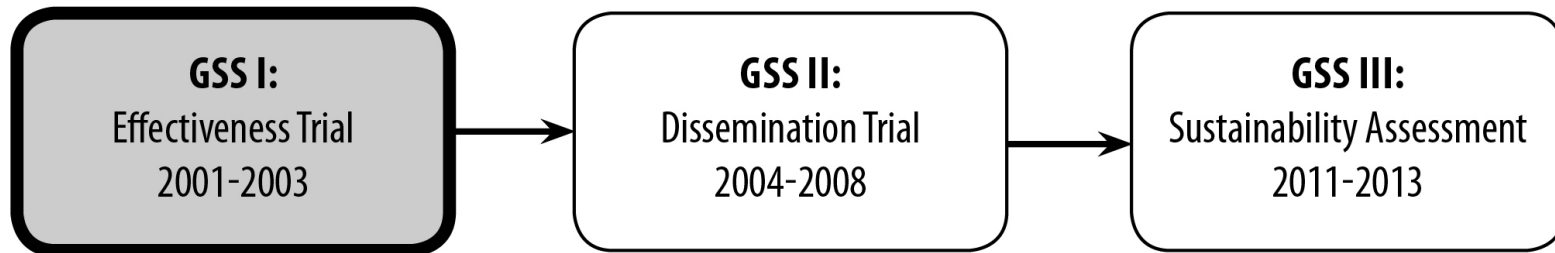
Go Sun Smart Project



Ski Industry Partners



The *Go Sun Smart* Research

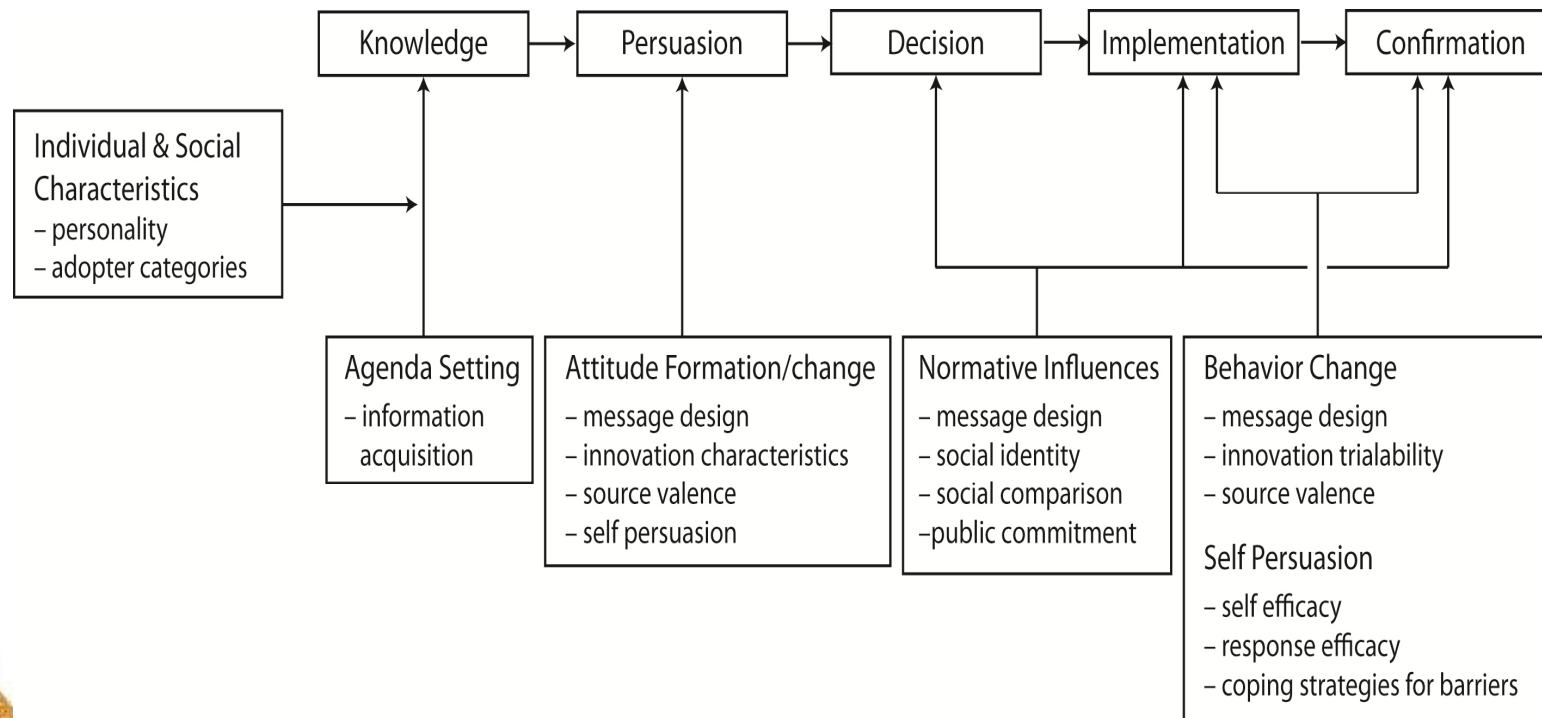


Program Goals

- To create an occupational sun protection program that could be used by ski areas.
- To reduce workers' sunburn prevalence and increase their sun protection behavior.
 - Fill knowledge gaps and teach skills.
 - Put knowledge into action.
 - Advocate sun safety to employees and guests



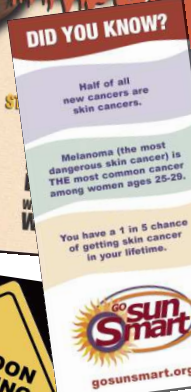
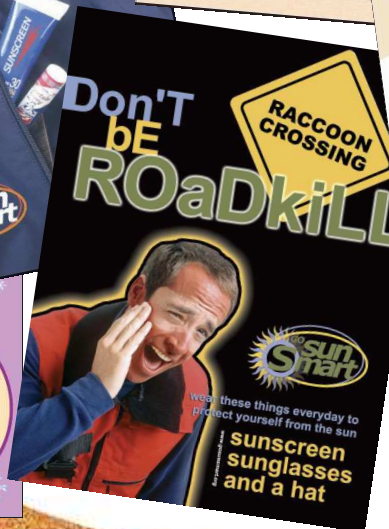
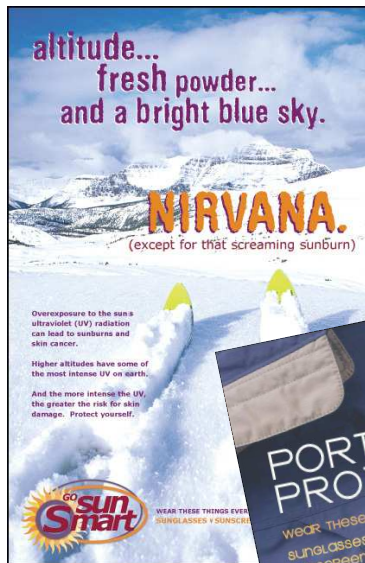
Diffusion of Innovations Theory



Source: Buller, D. B., Walkosz, B. J., Andersen, P. A., Scott, M. D., Dignan, M. B., & Cutter, G. R. (in press). The go sun smart campaign: Achieving individual and organizational change for occupational sun protection. In R. Rice & C. Atkin, *Public communication campaigns*, 4th ed. Thousand Oaks, CA: Sage.



Program Materials



General Info
Everyone Needs to
Go Sun Smart

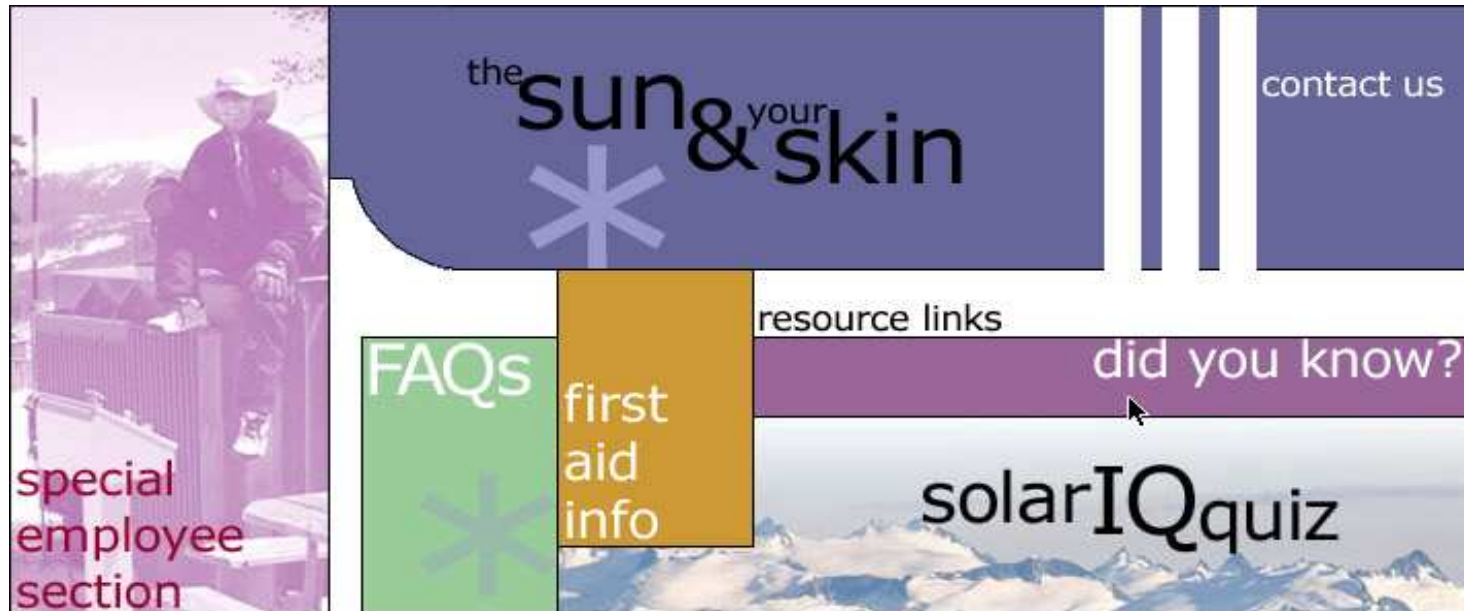


Training Program & Brochure

Editions for Ski Patrol,
Ski Instructors and
General Employees



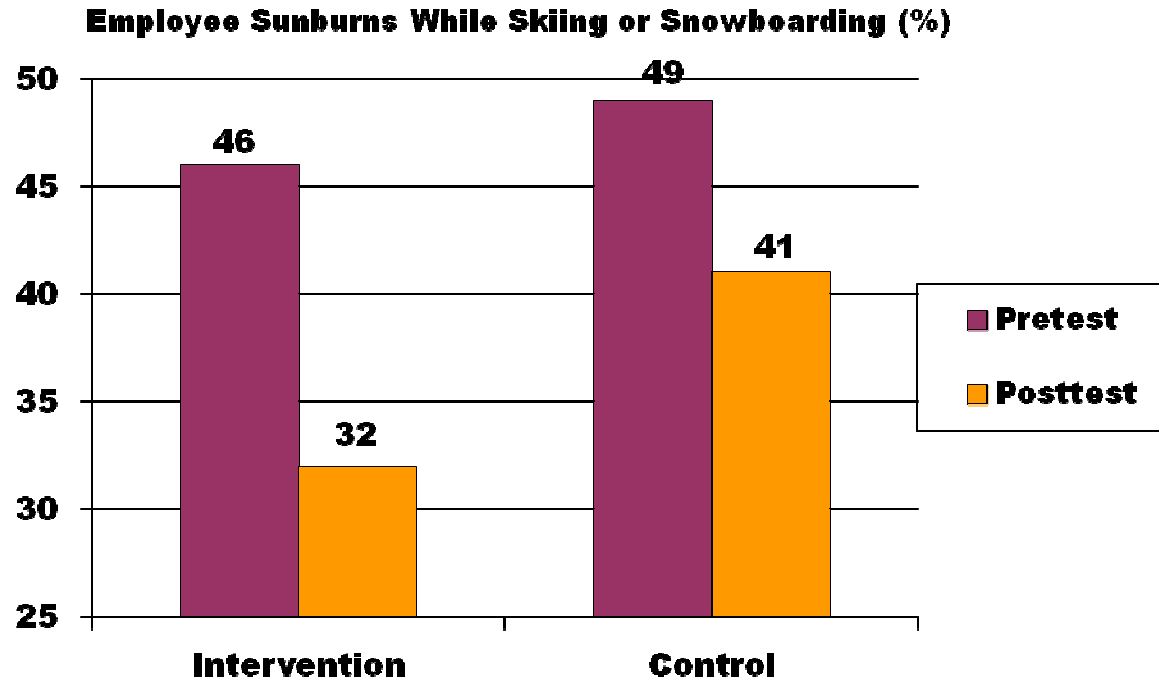
www.gosunsmart.org



Always remember your sunglasses, sunscreen & a hat.



Effect of *Go Sun Smart* on Employee Sunburning



OR=1.63, $p < .05$ controlling for pretest, gender, age, job type, self-efficacy, and attitudes

Source: Buller, D. B. et al. (2005). Randomized trial testing a worksite sun protection program in an outdoor recreation industry. *Health Education and Behavior*, 32, 514-535.



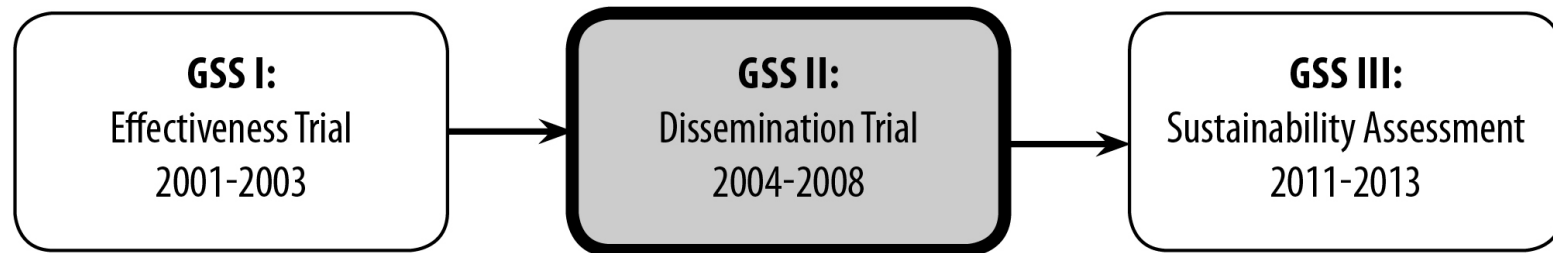
Employee's Summer Sun Protection Behavior

Behavior	Intervention	Control	p
Sunburn in past summer	50%	53%	p=0.01
Sunscreen	2.19	2.35	p<0.01
Sunglasses	1.46	1.52	p<0.01
Composite Sun Protection Behavior	2.57	2.63	p<0.04

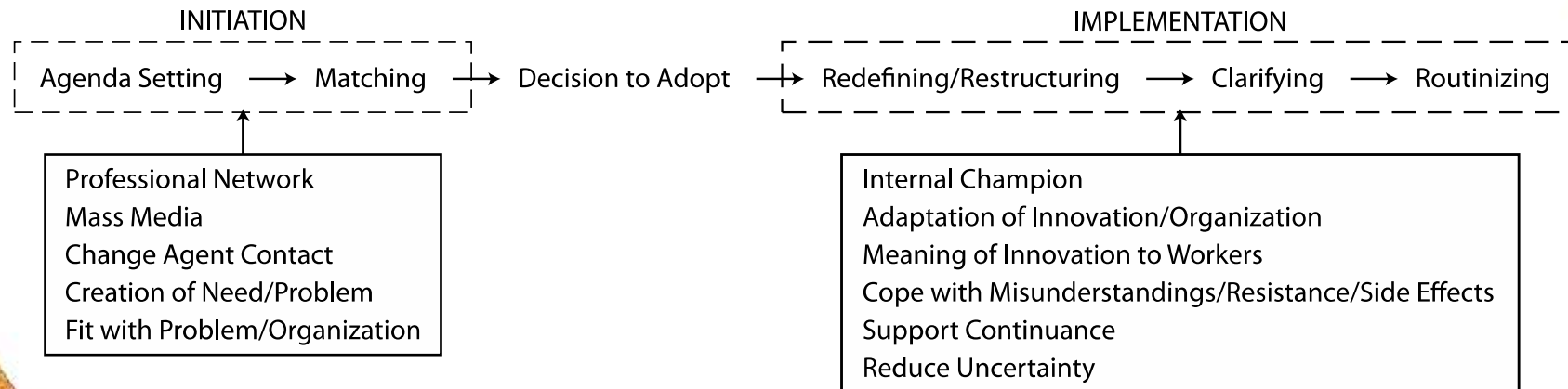
Source: Andersen P. A. et al. (2008). Testing the long term effects of the *Go Sun Smart* worksite health communication campaign: A group-randomized experimental study. *Journal of Communication*, 58, 447-471.



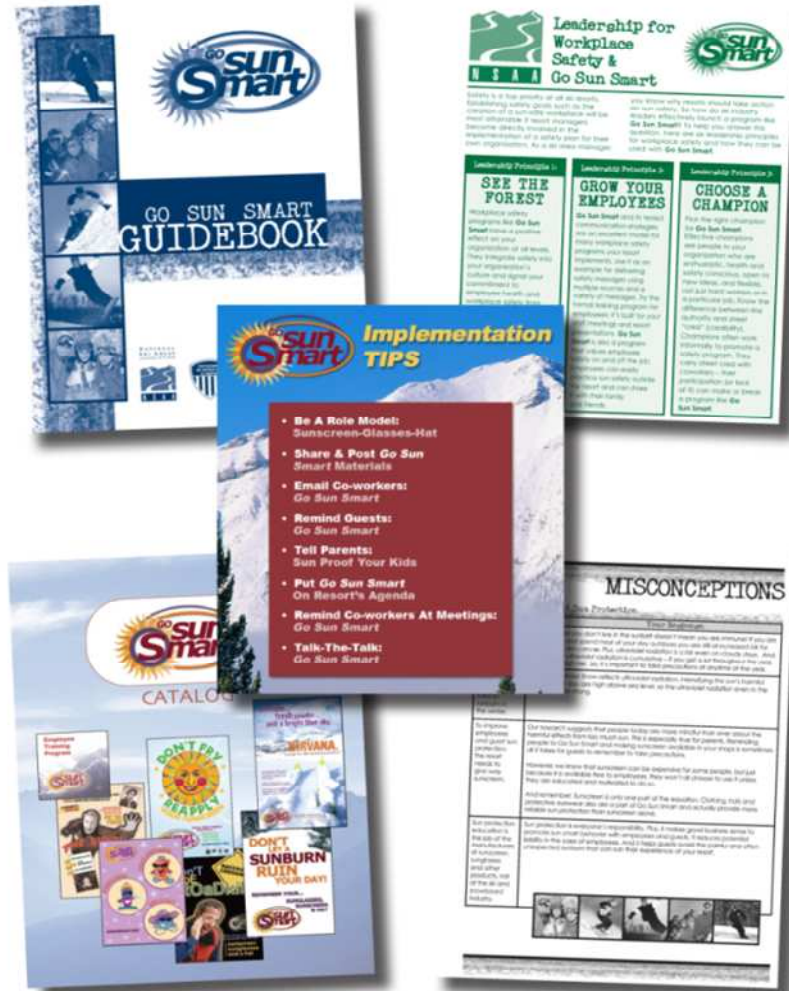
Go Sun Smart **Program Dissemination (CA104876)**



Diffusion of Innovation Theory: Organizational Adoption



Enhanced Dissemination Strategy



Enhanced Strategy Features

- Personal visit with senior managers.
- Specialized printed support materials.
- Purpose:
 - Reduce managers' uncertainty about GSS.
 - Build a relationship of credibility and trust for program staff and GSS.
 - Obtain public commitment to use GSS.
 - Help managers plan for use of GSS.
 - Identify internal champions who could support GSS.

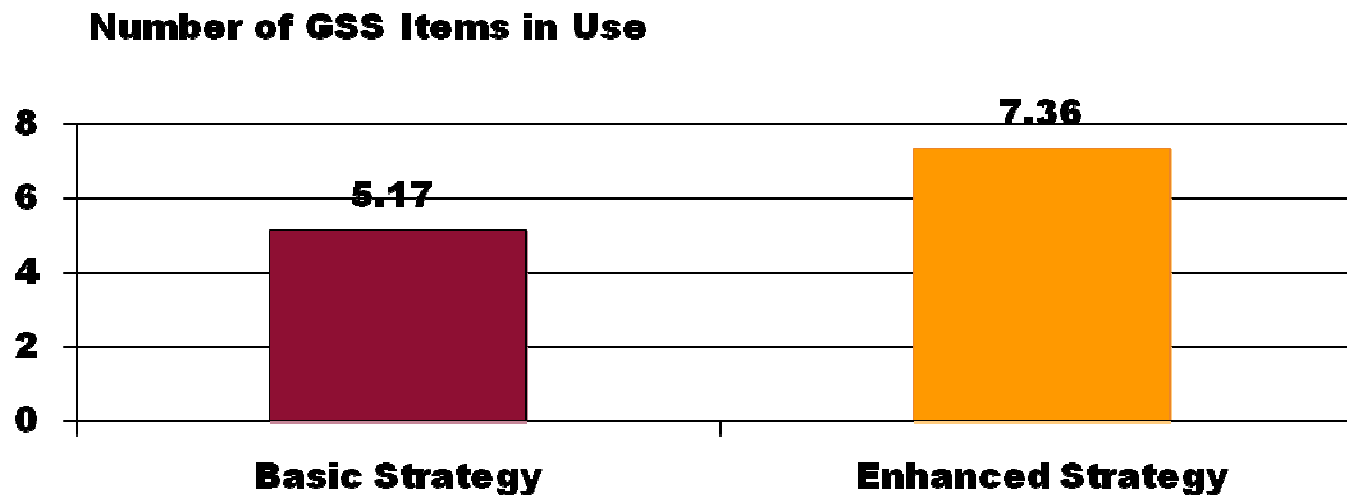


Enhanced Strategy Features (cont.)

- Periodic follow-up contacts by telephone and email throughout ski season.
- Purpose:
 - Maintain support for GSS use.



GSS Use by Dissemination Strategies

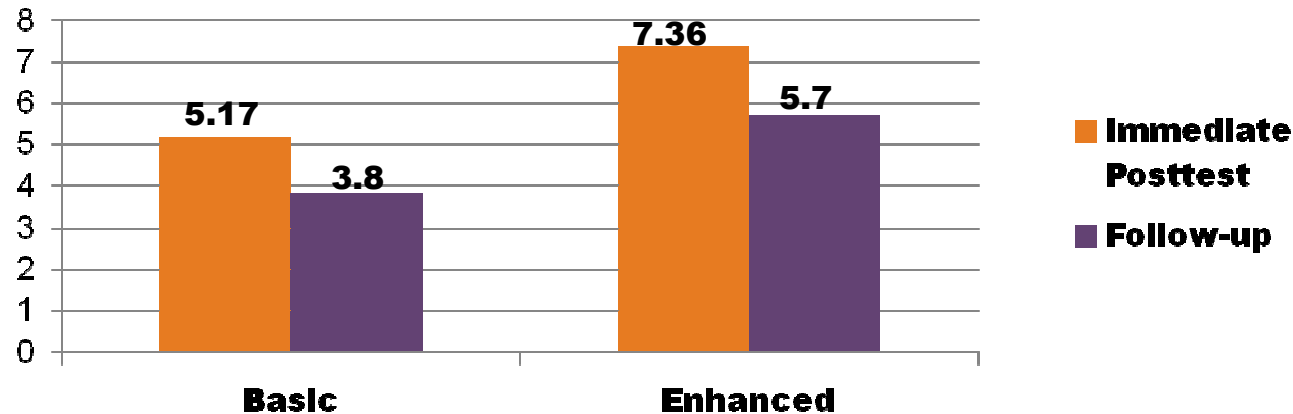


$p < .01$ [1-tailed] adjusted for wave, size of employer, number of female managers, and mean annual number of sunny days

Source: Buller et al. (in press). Enhancing industry-based dissemination of an occupational sun protection program with theory-based strategies employing personal contact. *American Journal of Health Promotion*.



Intermediate-term Sustainability of GSS Use



Observation: $p=0.01$

Dissemination Strategy: $p=0.02$

Observation x Strategy: $p=0.83$

Adjusted for wave, number of employees, proportion of female managers, and mean number of hours of sunshine.

Source: Buller et al. (in press). Sustainability of the dissemination of an occupational sun protection program in a randomized trial. *Health Education and Behavior*.



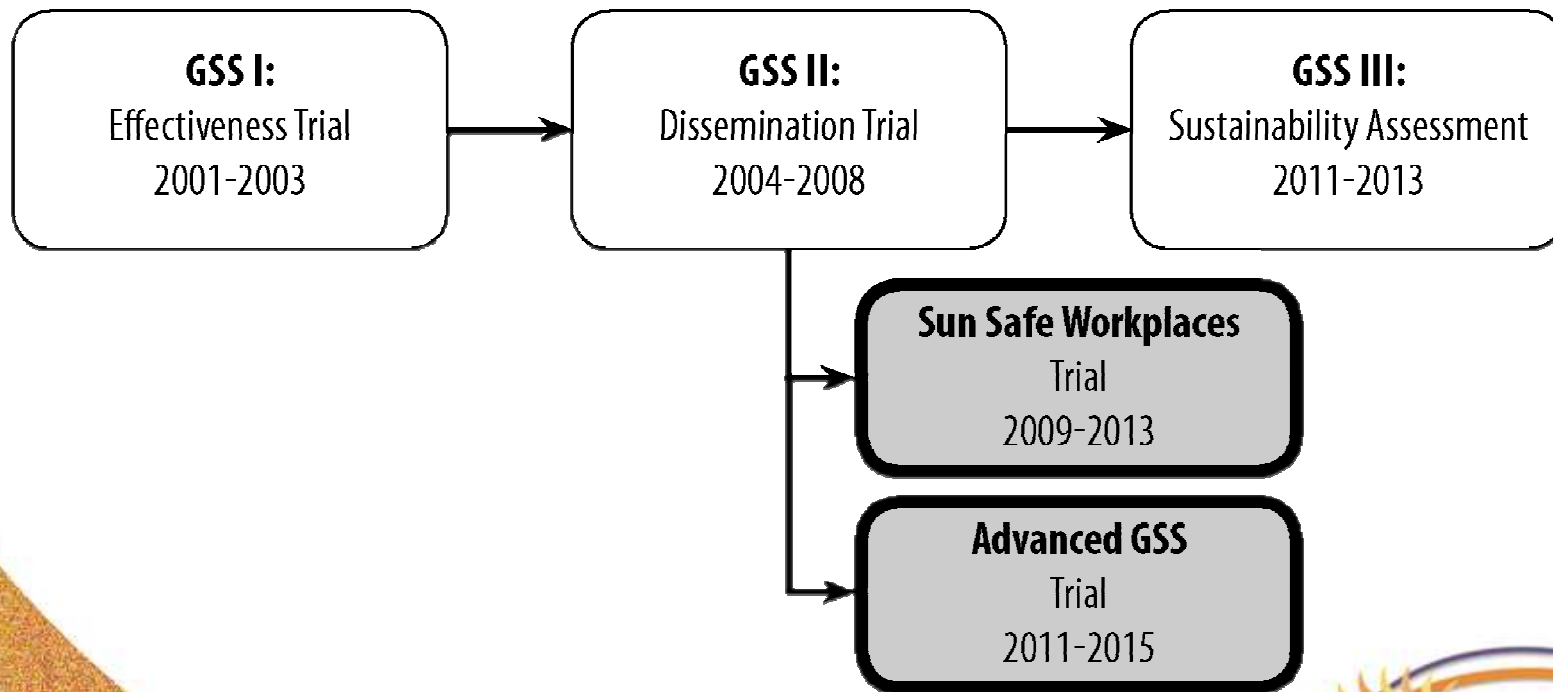
Employees' Exposure to GSS and Sun Protection Behavior

	Number of GSS Items in Use			p
	<4 items (n=845)	4 ≤ items <9 (n=856)	≤9 items (n=527)	
GSS Awareness	22%	34%	53%	<0.01
Recalled Sun Safety Message	55%	68%	82%	0.01
Composite Sun Protection Behaviors	22.4 (4.35)	22.6 (4.67)	23.7 (4.85)	0.01

Source: Andersen P. A. et al. (2012). Expanding occupational sun safety to an outdoor recreation industry: A translational study of the go sun smart program. *Translational Behavioral Medicine*, 2, 10-18.



On-going Research: Improving *Go Sun Smart* (CA152411)



New Initiative: Sun Safe Workplaces Project

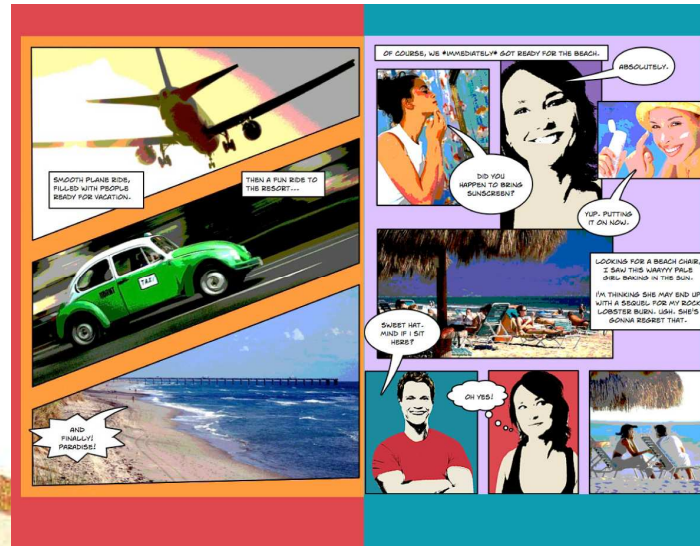
- To develop and evaluate a campaign promoting environmental and administrative policies for occupational sun protection.

**HIGH SUN ZONE
COVER UP!**
WEAR SUNSCREEN, SUNGLASSES & A HAT



New Initiative: Advanced *Go Sun Smart* Project

- To create an Advanced GSS using Transportation Theory.
 - Narrative message formats
- Evaluate Advanced GSS with summer resort guests to improve vacation sun safety.



Thank you

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