


Impact of a customized educational program on knowledge and beliefs about influenza and vaccination among working adults

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Presenter disclosures

Alexandra Dirlam Langlay, PhD

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

Employment by commercial entity:

- I am employed as the Director of Research for Ofstead & Associates, Inc.

Industry-sponsored grants (received or pending) including contracted research:

- Sanofi Pasteur provided financial support and Fluzone® (Influenza Virus Vaccine) for the study.

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Acknowledgments

- The Employers Health Coalition provided input on study design and assisted in engaging the manufacturer.
- A large U.S. manufacturing corporation and four of its factories participated in the study.
- Minnesota Institute of Public Health served as the IRB.
- HealthSCOPE Benefits, Inc. conducted claims data analysis.

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Worksite Influenza Vaccination Study (WIVS) research team

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Challenges with influenza and vaccination

- Annual impact of influenza
 - 5% - 20% of the US population (15 to 62 million people)
 - Up to 0.8% of the US GDP (\$109 billion)
 - 10% - 20% of employees lose 2+ days (absenteeism)
 - 80% still impaired upon return to work (presenteeism)
- Influenza vaccination
 - Stagnant or declining rates
 - Lack of provider recommendation

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WIVS goals

- To increase influenza vaccination rates by:
 - Increasing knowledge
 - Addressing concerns and misconceptions
 - Reducing barriers
- To measure impact of worksite interventions on:
 - Knowledge and beliefs
 - Vaccination receipt
 - Outcomes (survey and claims data)

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WIVS sites and populations

Site	Type of Intervention	Covered workers	Total covered members	Employee gender (% male)	Mean age (years)	Surveys completed (2010)	Surveys completed (2011)
A	Employees only	2,195	4,690	65%	43	497	250
B	Employees & dependents	2,634	5,368	64%	46	503	517
C	Control	1,682	3,462	67%	44	NA	493
TOTAL		6,511	13,520	65%	45	1,000	1,260

*Note: Claims data included only for employees with continuous coverage from 9/1/10 – 3/31/11

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Significant impact of influenza-like illness (ILI) (baseline survey; N=1,000)

- 45% Had ILI during the past year
- 82% Came to work sick with ILI
- >25% Missed work due to ILI
- ~30% Required medical care for ILI
- >\$600k Lost wages & out-of-pocket costs per factory



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Knowledge and beliefs (baseline survey; N=1,000)

- Misconceptions were common
- Multiple barriers to vaccination
- Preferred sources of advice:
 - 84% Health care provider
 - 71% Family members
 - 69% Worksite clinic staff
- Preferred ways to learn about health topics at work:
 - 80% Read written materials
 - 63% Speak to health care provider privately



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WIVS interventions and objectives

- Management briefings
To gain leadership buy-in/support
- Training for health coaches, clinic staff, and factory artists
To ensure understanding and enlist their support
- Flyers, home mailers, newsletter articles, posters, cartoons
To address gaps in knowledge, misconceptions, and concerns
- Contact with local physicians having high volumes of employees
To sign a letter encouraging universal vaccination
- Negotiations with mass vaccinator
To improve convenient access to free vaccine

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Examples of customized educational materials



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Examples of customized educational materials



Afraid of needles?

A third of our employees who don't get flu shots say they don't like needles. Catching influenza can feel much worse than a quick jab in the arm. Protect yourself and others by getting vaccinated this fall.

Vaccination Prevents Influenza



He wouldn't take the field without pre-season training. Would you?

The flu shot works like a training program for your body's immune system. It helps your body recognize flu germs and fight them off when you get exposed, so you won't get as sick. Start training your body for the flu months ahead by getting vaccinated this fall.

Vaccination Prevents Influenza

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Examples of customized educational materials

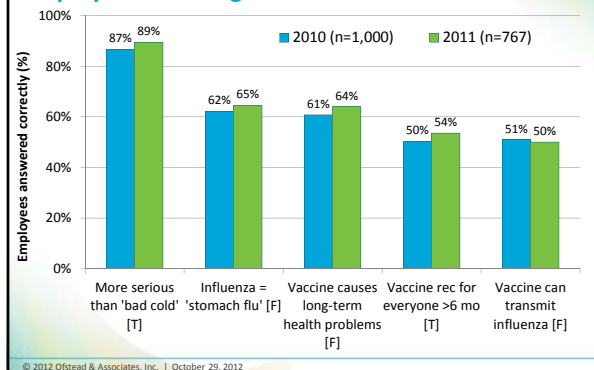


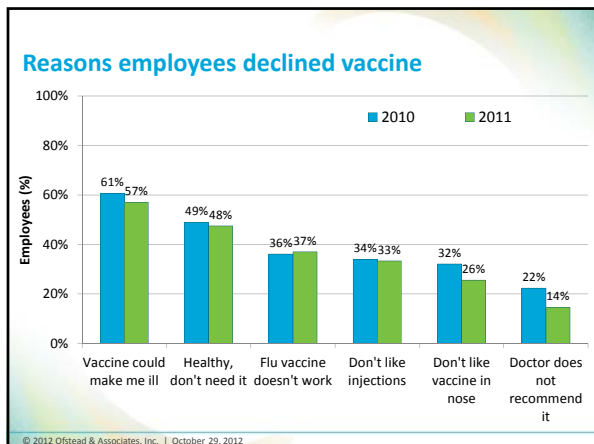
Impact of interventions

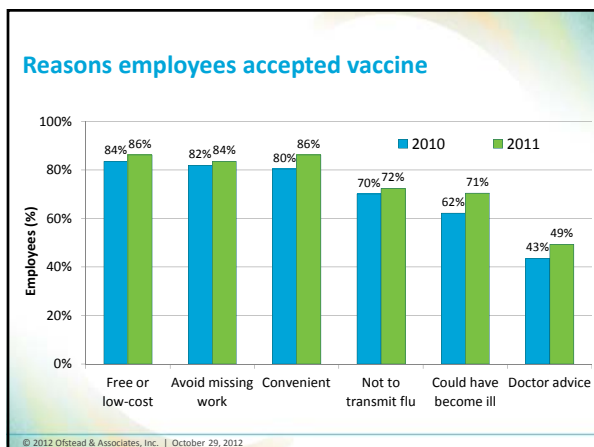
- Knowledge
- Beliefs and preferences
- Vaccination receipt
- Outcomes
 - Healthcare utilization
 - Vaccine side effects
 - Vaccine effectiveness
 - Total economic impact

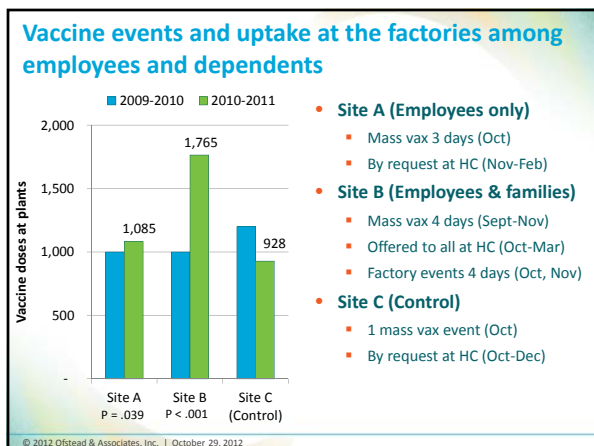
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Employee knowledge about influenza and vaccine









Factors contributing to vaccine uptake

- Convenient access to free vaccine (Odds ratio 2.5)
- Information about vaccination from the employer (Odds ratio 2.1)
- Concern about catching influenza (Odds ratio 1.8)
- Incrementally higher knowledge scores (Odds ratio 1.2)



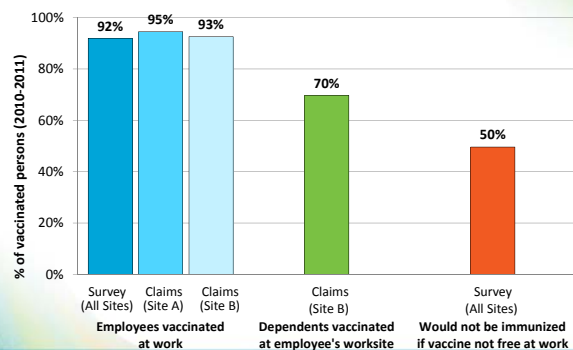
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Interventions that worked

- Free, convenient access at the worksite
- Engaging families
- Cues to action from the employer
- Leadership support
- Engaging worksite clinic staff
- Negotiating with the mass vaccinator
- Getting local physicians to sign a recommendation
- Festive atmosphere in a community setting

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Importance of worksite vaccination programs



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