



Barriers to Personal Protective
Equipment for H5N1

Education and Relationships are Key

Elon Ullman, MS, CIH
California Department of Public Health
Occupational Health Branch
Emerging Workplace Hazards Unit



Background

- CDPH H5N1 response
 - Cal/OSHA Aerosol Transmissible Diseases Standard requires respiratory protection
- Program for Respirator Outreach, Training, Education, and Community Testing (PROTECT)
 - NIOSH funded Program
 - Improve education
 - Increase fit testing
 - Community members and workers without respiratory protection programs



Health Belief Model and H5N1

Why do People Choose to Engage in Behaviors to Improve Health?
Why do Employers Choose to Prioritize their Employee's Health?

Perceived
Susceptibility
to Threat



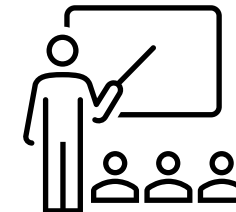
Perceived
Severity
of Threat

Perceived
Benefits



Perceived
Barriers

Cues for action



Efficacy

Barriers to Uptake

Supply Chain

- Not a barrier in CA
- State Stockpile
 - Available to farms, local health jurisdictions and community-based organizations
- Available for purchase

Distributional Challenges

- Workers not represented by a union or other centralized organization
- Had to rely on Local Health Jurisdictions and Community Based Organizations
- Difficult to quickly establish trust

Barriers to Uptake

Low Perceived threat

- Disconnect between public health and farming community
 - Public Health focused on prevention
 - Focused on potential of severity
 - Farmers perceived low risk
 - **Current** spread not causing high fatality rates in workers
 - Focused on cows, not workers

Low Perceived Benefit

- Respiratory protection history not used
- Very limited understanding of purpose of respirators
 - Difference from masks not understood

Barriers to Uptake

Environmental

- Hot environment



- Wet environment



Recommendations

Relationships are key

- Supply is irrelevant without distribution networks
- Establish relationships with organizations trusted by community
- **Provide education as a part of distribution**



Recommendations

Hot Environment

- N95 and elastomeric respirators are not currently feasible
 - PAPR
 - Air conditioning

Wet Environment

- PAPR
- Elastomerics w/ water resistant cartridges
- Faceshield over N95



Recommendations

Need education before emergency

- Currently in a window for education
- Educational Needs:
 - Severity of past outbreaks
 - Respiratory protection
 - Airborne transmission
- The purpose of respiratory protection needs to be common knowledge

