Prevalence and Predictors of Self Reported Skin Disease among Farmworkers

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Overview

- Study design and methods

- Cumulative prevalence of most common self-reported skin problems

- Predictors of self-reported skin problems

- Recommendations of interventions to reduce skin problems

Methods

- Cohort study design, followed participants across season May – October 2005

- Structured questionnaire (Spanish)
  - Skin problem checklist
  - Personal background and work exposures

- 304 farmworkers, 45 randomly selected sites

- Interviewed 1 to 5 times at 3-week intervals

- 1048 data points

Measures: Outcomes

☐ Self-reported skin problems, presence/absence:
- Foot fungus
- Sunburn
- Bumps, pimples or acne
- Itching
- Rash
- Nail fungus

Measures: Predictors

□ Work characteristics (previous 7 days)

- Worked in cucumbers
- Job tasks
  - □ Planting
  - □ Cultivating
  - □ Topping tobacco
  - □ Harvesting
  - □ Curing tobacco
- Wore a rainsuit
- Wore wet shoes or clothes

□ Environment Characteristics

- UV index

Analysis

- ☐ Cumulative prevalence: counts and frequencies calculated on presence across season

- ☐ Multivariate logistic regression model for each dichotomous outcome; corrected for multiple observations per person and multiple participants per residential site

Sample Characteristics

- 49% 30 or younger

- 89% completed grade 9 or lower

- Self-rated Health: 57% good or better, 43% fair or poor

- 63% H2A visa

- 15% history of hay fever or asthma

Most Prevalent Skin Problems

- ☐ 59% prevalence:
  - Foot fungus
  - Sunburn

- ☐ 40%-49% prevalence:
  - Rash
  - Bumps, pimples or acne
  - Itching

- ☐ 30%-39% prevalence:
  - Nail fungus

Predictors of Skin Problems

- Sunburn:
    - Harvested: OR 1.91 (95% CI = 1.25, 2.93)
    - Topped tobacco: OR 1.87 (95% CI = 1.31, 2.67)
    - Cured tobacco: OR 1.83 (95% CI = 1.15, 2.92)
    - Wore a rain suit: OR 1.95 (95% CI = 1.06, 3.60)
    - Low UV index: OR 0.65 (95% CI = 0.46, 0.93)

- Bumps, pimples and acne:
    - Worked in wet shoes/clothes: OR 1.40 (95% CI = 1.03, 1.90)
    - Worked with cucumbers: OR 2.00 (95% CI = 1.22, 3.30)

- Rash:
    - Worked in wet shoes/clothes: OR 2.63 (95% CI = 1.98, 3.50)

Predictors of Skin Problems

- Itching:
  - Worked with cucumbers: OR 2.60 (95% CI = 1.66, 4.08)
  - Planted: OR 1.77 (95% CI = 1.11, 2.83)
  - Cultivated: OR 2.05 (95% CI = 1.04, 4.03)
  - Worked in wet shoes/clothes: OR 4.57 (95% CI = 3.08, 6.78)
  - Wore rain suit: OR 2.77 (95% CI = 1.63, 4.74)

- Nail Fungus:
  - Wore a rain suit: OR 1.57 (95% CI = 1.13, 2.17)

Recommendations

- Decrease itching, rash, and bumps, pimples or acne by:
  - Providing gloves and breathable long sleeve shirts
  - Encouraging workers to change clothes when they are wet
  - Providing waterproof clothing that breathes – rubber rain suits too hot

- Decrease fungal infections by:
  - Educating workers about how fungal infections are transmitted; wearing shower shoes, dry socks and clothes
  - Give growers incentives for providing bathroom facilities that are easy to clean
  - Establish cleaning schedules; workers take turns with cleaning tasks

- Decrease sunburn by:
  - Educating workers about sun protection;
  - Provide sunblock