

*Implementing Occupational
Hazards Intervention
Program for Small Farms*

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Introduction

Health Problem Definition

- Farming ranks among the most hazardous occupations and small farmers experience a high risk of injuries, illnesses, and diseases
- Farmers develop more lost-time injuries, less production, & increased medical expenses
- Many chronic diseases and health disorders in farming communities often take time to manifest
- Children and adolescents of farmers are also at risk of developing injuries, diseases & illnesses

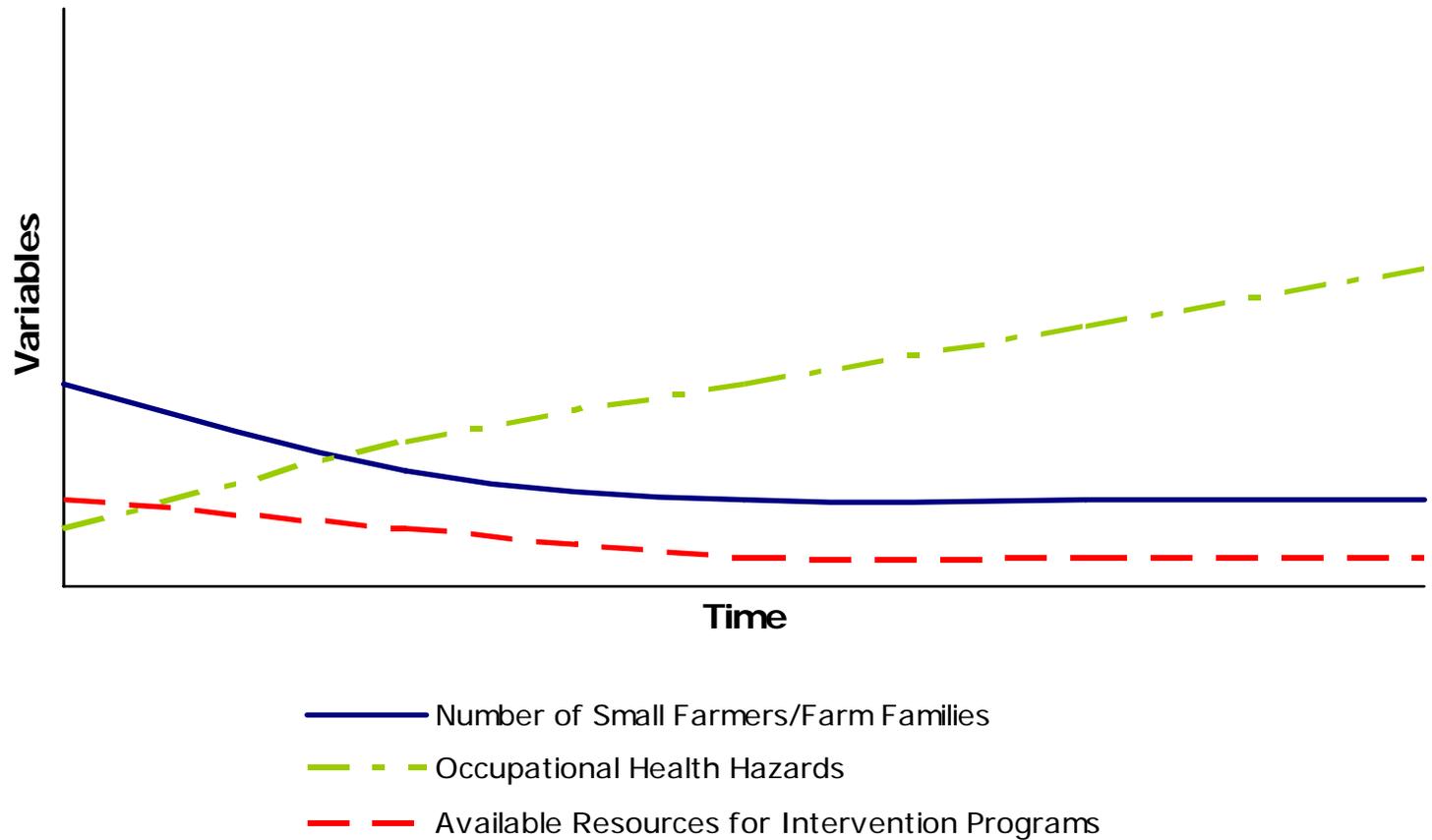
Problem Statement

- Contributing variables
 - Exposures to chemical and biological hazards
 - Physical hazards from farm machinery and equipment
- Compounding variables
 - Recreational exposures
 - Demographics: age, sex, gender, etc.
 - Mounting pressures on small farmers to learn new ways to generate income (alternative enterprises, marketing strategies, and management skills)
- Inadequate resources to implement effective health and safety prevention and control

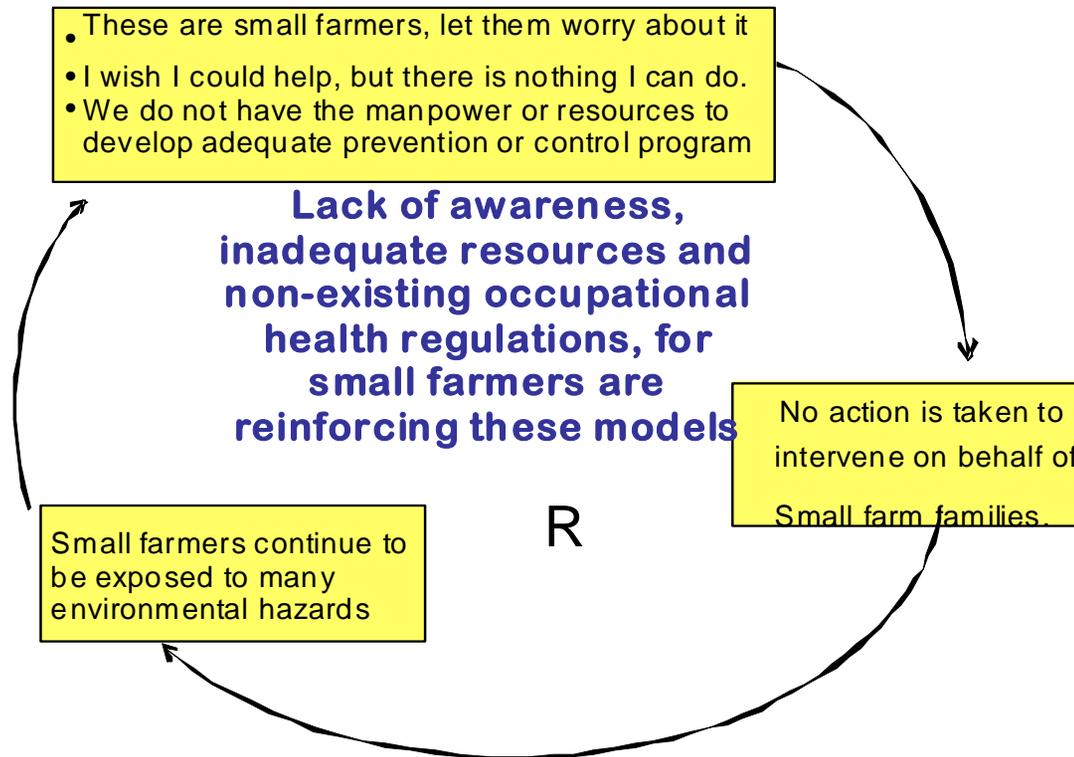
Behavior Over Time

- Number of U.S. small farmers has remained stable over time (USDA)
- The relatively stable farm count reflects exits and entries essentially in balance
- Available resources, incidence and prevalence of occupational diseases are increasing
- No federal occupational health and safety regulations for small family farms

Behavior Over Time, cont'd



Causal Loop Diagram



National Goals Supported

- CDC's Healthy People 2010 goals
 - Healthy People in Healthy Places - promoting and protecting the health and safety of workers
 - 10 Essential Environmental Health Services - Assessment (monitoring & investigation of health hazards), Information, Education and Enforcement
- National Public Health Research Strategy by creating and disseminating knowledge
- APHA's guidelines on core competencies for practitioners in local health departments

Methodology

- Key Stakeholders

- 12-15 farmers in 4 South-central Kentucky counties
- Western Kentucky University
 - Department of Public Health
 - Department of Agriculture
 - Agricultural Exposition Center

- Study Design

- Survey questionnaire to elicit demographic information, exposure history and use of protective equipment
- Environmental sampling: planting and growing season

Next Steps

- Environmental monitoring of selected farmers
 - Chicken operation
 - Dairy farms, Hog and Cattle operation
 - Farm shops
- Data analysis of survey questionnaire and environmental samples
 - Descriptive statistics & frequency distributions (SPSS)
 - Categorical data analysis (ANOVA) and T-tests

Expected Outcomes

- Implementation of intervention options
 - Feasible engineering controls, substitution and the use of personal protective equipment
 - Effective program would increase small farmers' awareness of occupational hazards
- Results would contribute to the field of literature on occupational hazards among small farmers
- Results of risk factors will assist policy-makers in developing rational policies for this special and underserved socioeconomic group.

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