

Research Core Evaluation: Surveillance

Due to limited surveillance for agricultural injuries throughout the GPCAH region, surveillance projects have been funded to *identify what systems can be used to identify and eliminate critical health and safety hazards injuring the region's farmers and farm workers*. In addition, a goal of this project was to identify trends to evaluate center performance and identify emerging issues in need of response. Some important aims of this project were to provide Center partners with information about trends and characteristics of agricultural traumatic fatalities and injuries in the GPCAH region to help prioritize interventions and measure effectiveness of interventions underway.



2011-2016 (Peek-Asa/Ramirez): NEEDS ASSESSMENT

Conduct ongoing surveillance using multiple regional and state databases to identify the burden of injury to agricultural producers

- Fatality/Assessment and Control Evaluation (FACE)
- Census of Fatal Occupational Injury (CFOI)
- Newspaper Clipping Services
- Iowa's State Trauma Registry

BUT...

- Newspaper clippings too inconsistent for research purposes
- Need to find reliable information sources for non-fatal injuries for 9-state region



2016-2022 (Ramirez/Casteel)

Partnered with industry **to analyze** worker's compensation data

- 2/3 of claims medical only
- 1/3 of claims death/disability
- **Yielded unique data** about the immediate cost of injuries

Compared Iowa trauma registry (ITR) data to Iowa workers' compensation (WC) data, but found very little overlap

Cause of injury	ITR	WC
Roadway crashes	>25y	<25y
Cut/pierce, struck by	>45y	<45y
Falls	>62y	<62y

Overall trends

Cause of injury	ITR	WC
Older workers	X	
Young workers		X
Machinery	X	
Fire/Burns		X

Nationwide



2016-2022 (Ramirez/Casteel)

Developed hazard surveillance checklist and **converted** it to an app

- Tested on 103 row crop farms
- Piloted training module with Ag safety and health professionals
- Trained users enter data from farms
- Data available for researchers to use

Hazards assessed:

- Self-propelled vehicles
- Pulled implements
- Fixed machinery & equipment
- Buildings & structures
- Fall prevention & ladders
- Safety Training & written policies
- Worker injury history

Evidence of research output adoption include:

- **Training:** Five PhD students and 2 MS students were involved in collecting field data, examining linkages between databases, and analyzing the checklist tool.
- **Education and Outreach:** The project converted the newly developed “checklist” into a web-based application, then developed and provided training at an online skills-development workshop. This included a 60-minute asynchronous training to understand the app and its scoring, then a synchronous 90-minute session to apply the checklist to videos collected on the farm. Iowa trauma registry findings have been shared with outreach personnel and ag educators to communicate on-farm risks and injuries using cases relevant to the region's farmers.