Using role-play to enhance foodborne illness crisis management capacity with producers

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Dealing with a crisis

• Any unstable and dangerous social situation

• It is difficult to put preparedness into
  ▫ Fire drills, wedding rehearsals, mock recall

• Risk communication

Scientific Assessment of Risk  Vacu  Public Perception of Risk

Powell, 1997
Methods

- **Participant selection**
  - Strawberry producers
  - Blackberry producers
  - Sweetpotato producers
  - SE vegetable expo
  - National sweetpotato conference

- **Baseline survey**
  - $N=126$

- **Pre and post survey**
  - Likert scale and open ended questions
  - SAS analysis, proc glm

- **Role-play**
  - Outbreak scenario

- **One month follow up**
  - $N=25$
Baseline survey of producers

GAPs?
- Yes: 79%
- No: 21%

Crisis plan?
- Yes: 21%
- No: 79%
Food Safety
Expert

Farm Bureau Rep

Food Safety Expert

Extension Associates

Horticulture Expert

Outbreak Investigation

Regulator

Food Safety Expert

Media
Layout of role-play

- Media
- Commodity association
Outbreak scenario

Press release: August 15
- NC DHHS: There are an increased number of *Salmonella* Poona cases in NC
- CDC has been dispatched

Minutes after the press release
- “Reports are that this outbreak is linked to tomatoes”
- “What’s wrong with tomatoes?”

Press release: August 19
- NC DHHS has confirmed that the outbreak is linked to tomatoes

Questions to the participants
- What do you do?
- Who do you call?
- What things do you do to assess your system?
Results

• How would you rate the likelihood of the products you grow being contaminated with microbial hazards?
  ▫ Before $3.59 \pm 0.5$
  ▫ After $4.44 \pm 0.62$

• How important is it for you to prepare for a crisis?
  ▫ Before $5.76 \pm 0.6$
  ▫ After $6.37 \pm 0.28$
Results

- Regardless of participation in our role-play, producers felt
  - Fairly confident in their ability to trace where their product went in the event of an issue (5.01 ± 0.35)
  - Ready to deal with a crisis (4.20 ± 0.77)
  - Their business could recover from a crisis (4.12 ± 0.39)
- Overall producers felt this session made them more prepared (5.98 ± 0.28)
One month interview

• Producers felt the session impacted their ability to deal with a crisis (100%)
  ▫ Common themes: eye-opening, overwhelming, experience
• Do you have a crisis management plan in place? Is it written down?
  ▫ Yes 44% No 56%
• How ready are you to deal with a crisis? (out of 7)
  ▫ 4.15 ± 1.14
Conclusions

• The role-play was effective in
  ▫ Raising awareness of crisis management gaps
  ▫ Increasing preparation through experience
  ▫ Encouraging conversations regarding other management strategies

• By simulating an outbreak, participants had the opportunity to respond and discuss the best strategies to deal with a crisis and initiate recovery thus influencing their crisis preparation
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