

# Evaluation of Educational Materials for Prevention of *Salmonella* – Maine, 2013

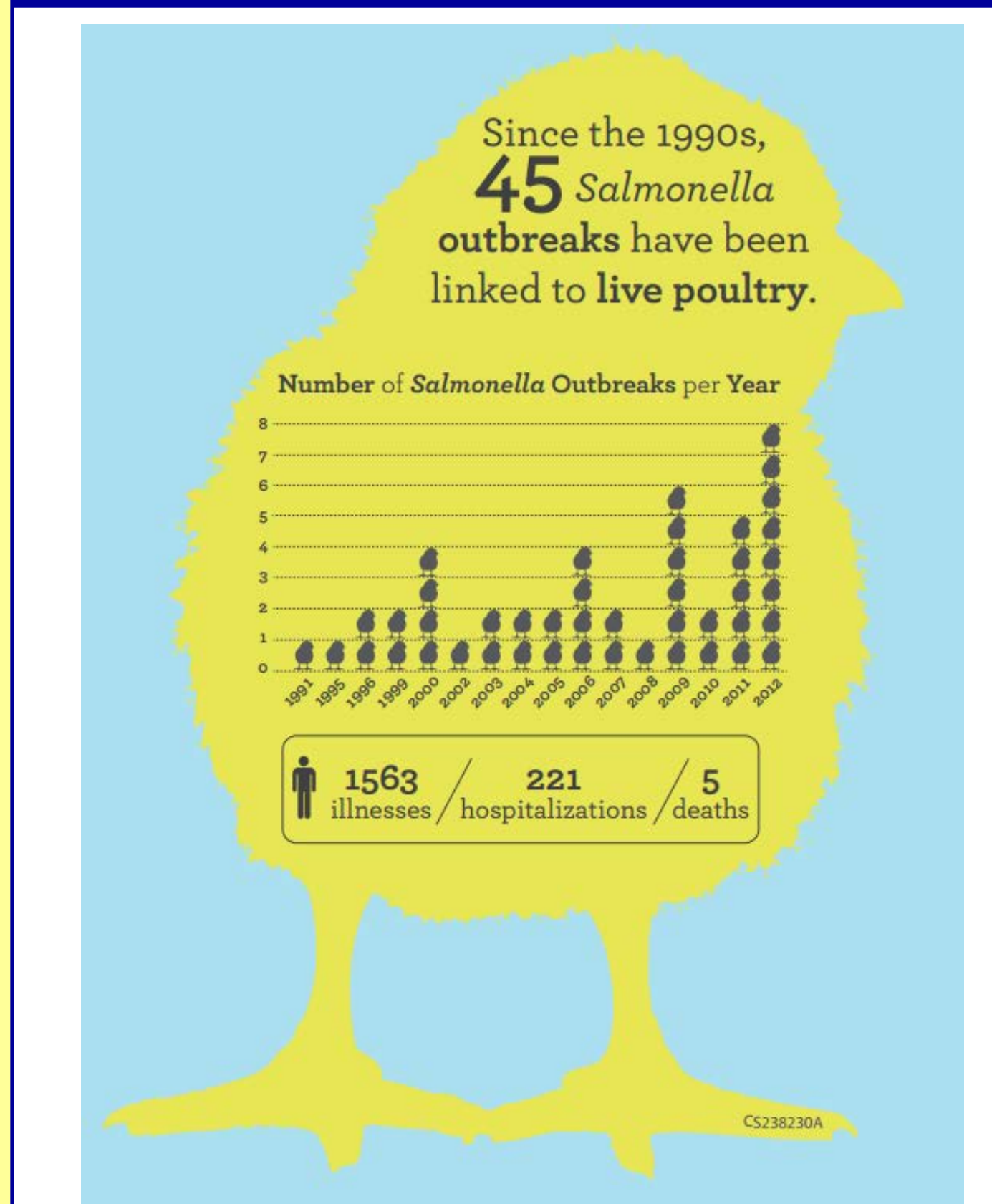
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## BACKGROUND

- The unsafe handling of baby poultry has been linked to several outbreaks of salmonellosis across the nation that led to hospitalizations and deaths in recent years
- Salmonella* is commonly spread through consumption of contaminated foods but also found in the feces of farm and backyard animals
- In 2012:
  - 8 outbreaks in the United States linked to live poultry
    - Maine CDC reported 4 cases linked to outbreaks
- Feed stores selling baby poultry have direct contact with consumers purchasing baby poultry
- Maine CDC Infectious Disease Epidemiology Program conducted an educational outreach campaign in March 2013 to feed stores across the state with recommendations on safe handling of baby poultry and risks of infection of *Salmonella*
- An evaluation of usefulness and effectiveness of written materials was conducted in June 2013

Figure 1. National outbreaks



## METHODS

- Educational materials mailed in March 2013:
  - Letter from State Epidemiologist and State Veterinarian
  - Pamphlet titled "Stay Healthy"
  - Poster titled "Baby Chicks"
- Survey developed with 37 questions for evaluation
- Thirty-six feed stores contacted via telephone
- Each store was contacted 1-3 times
- Each interview averaged 10 minutes in length
- Responses from the survey were analyzed and evaluated using Microsoft Excel and Epi Info 7.0

Figure 2. Location of feed stores

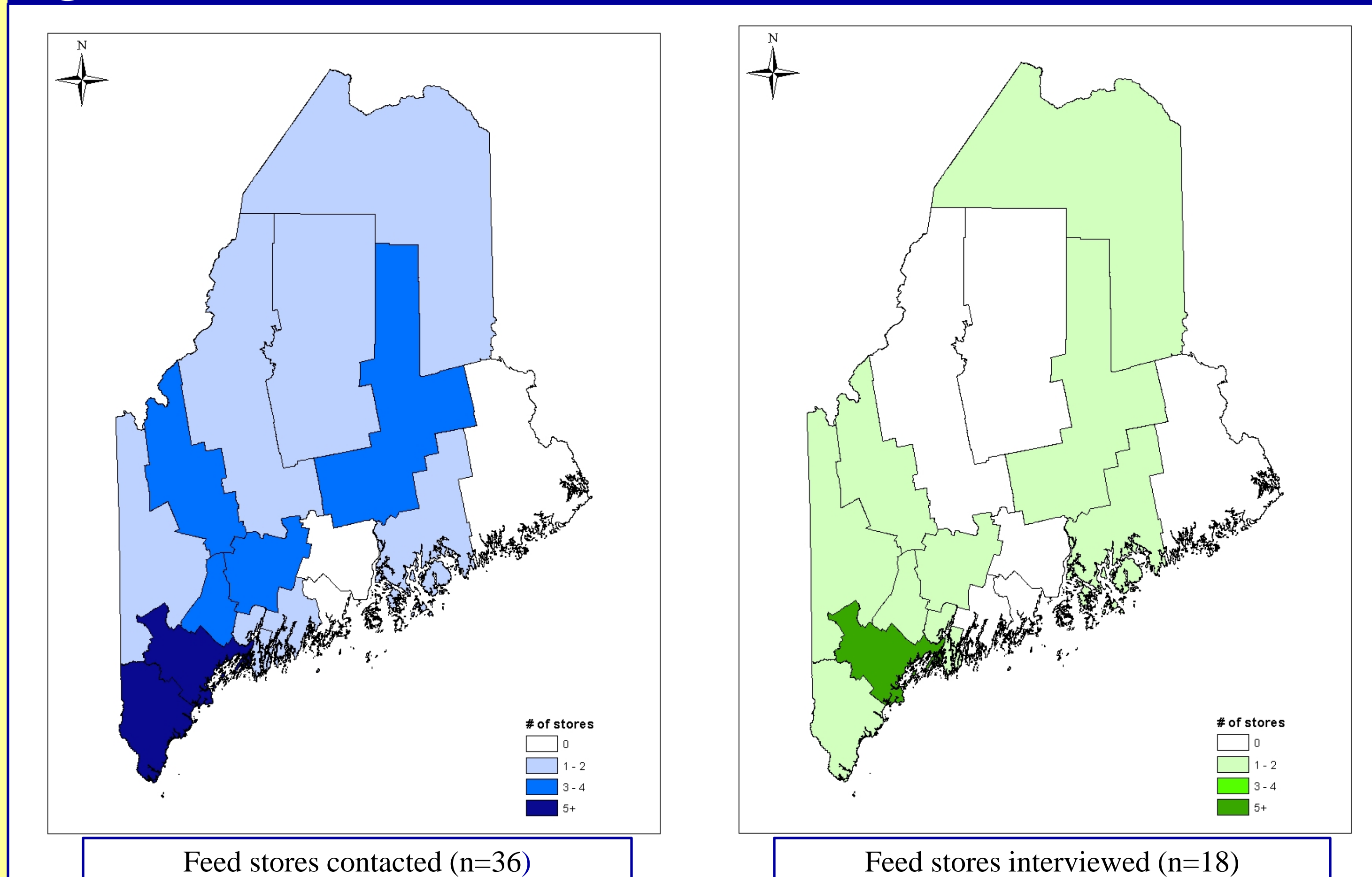


Figure 3. Pamphlet mailed to feed stores



## RESULTS

- Thirty-six feed stores contacted
  - Eighteen interviews successfully completed
  - Nine store managers unable to be reached
  - Nine store managers declined to be interviewed
- All 18 (100%) stores interviewed received the materials
- Twelve (70%) stores used other educational materials in their stores, aside from the Maine CDC issued posters and brochures
  - Pamphlet from grain company
  - Brochure from hatchery
  - Handmade signs
  - Store-specific materials (from corporate offices)
- All store managers and employees aware of how *Salmonella* infection is spread
- None of the stores remembered visiting any federal CDC websites for information about *Salmonella* infection
- No comments about whether the materials or distribution could be improved
- None of the stores thought customers were dissuaded from buying baby poultry because of the materials

Table 1. Number of stores using materials

	Yes	No	Unknown
Shared materials with employees	16 (89%)	1 (6%)	1 (6%)
Hung poster	15 (83%)	1 (6%)	2 (11%)
Distributed brochure	15 (83%)	2 (11%)	1 (6%)
Materials helpful	16 (89%)	1 (6%)	1 (6%)
Materials comprehensive and easy to read	14 (78%)	--	4 (22%)

Figure 4. Comments from stores on materials

- Helpful for new employees
- Anything that explains no kissing birds and washing hands is helpful
- Good reminder for people to wash hands
- Easier than explaining
- Everyone wants to touch chicks; materials show they are not toys
- Don't want kids getting sick
- Free is a bonus and keeping people safe is important

Figure 5. Sanitation practices in stores

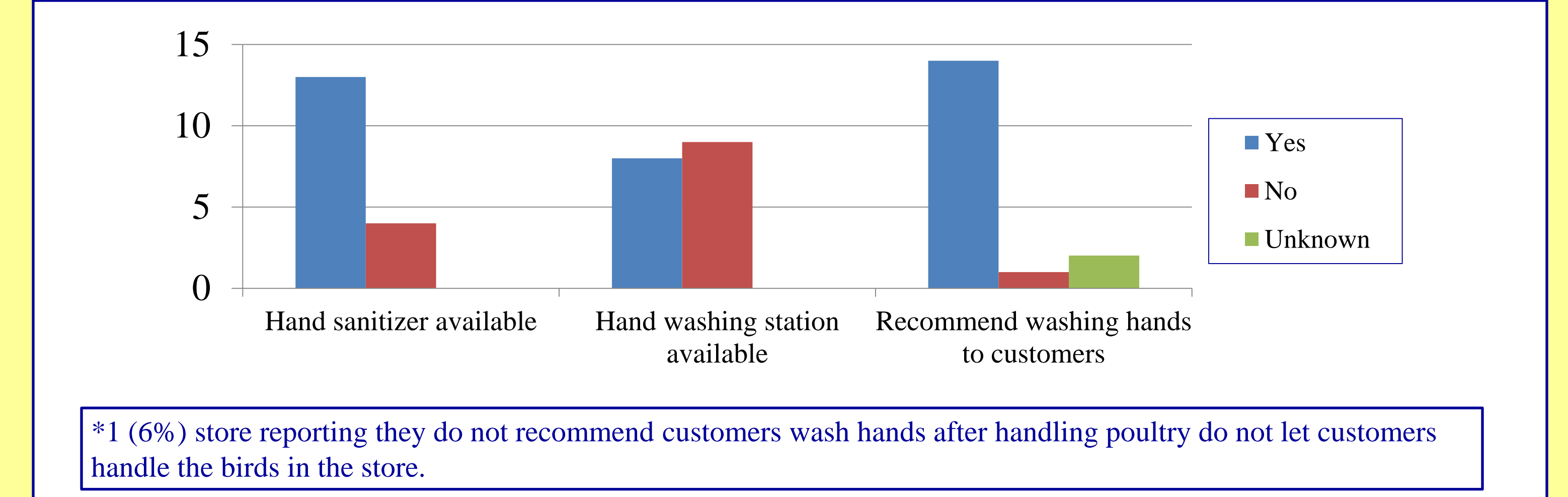


Table 2. Locations of materials posted in stores

Placement of poster, n=15	Number of stores (%)	Distribution of brochure, n=15	Number of stores (%)
At or near baby poultry display	8 (53%)	Available at the baby poultry display	4 (27%)
Where feed was sold	1 (7%)	Available where feed was sold	0 (0%)
At checkout	6 (40%)	Available at checkout in a display	9 (60%)
Other	7 (47%)	Handed to customers at checkout	1 (7%)
• 2 <sup>nd</sup> display area		Other	2 (13%)
• Door leading to chicks		• Stapled to receipt	
• Wall		• In back room near order forms	
• Front door			
• On table near order forms			
• On bulletin board			

## CONCLUSIONS

- Overall, the 18 feed stores interviewed felt materials were comprehensive, useful, and worthwhile for employees and consumers
- Feed stores are following recommended guidelines and making educational materials available
  - Passively providing materials not actively handing them out or answering questions
    - Exception of one store stapling brochure to back of each receipt
- Feed store managers and employees aware of how *Salmonella* is spread

### Limitations:

- Difficult to reach store managers
  - Only half of the 36 feed stores completed interviews
- Lack of information about how consumers used the educational materials

### Recommendations:

- Continue educational campaign each spring
  - High percentage (89%) of stores want to receive the materials again next season
- Complete any future evaluations closer to the selling season and collect more details about baby poultry display areas to determine best practices

## SOURCES

- Centers for Disease Control and Prevention. *Salmonella*. Available at <http://www.cdc.gov/salmonella/>. Accessed October 27, 2013.
- Maine Center for Disease Control and Prevention. Infectious Disease Epidemiology Program. *Salmonellosis*. Available at <http://www.maine.gov/dhhs/mecdc/infectious-disease/epi/disease/salmonellosis.shtml>. Accessed October 27, 2013.