Motivations for treatment decisions made by calf care workers on western United States dairies

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INTRODUCTION

Cases of calf diarrhea tend to be over treated with antimicrobials (Berge 2009).

- Identification & treatment of sick calves is in the hands of employees on large Western US farms.
- Understanding motivation behind why and how calf care workers make treatment decisions could help Extension educators and dairy advisors create more tailored messages about judicious antimicrobial use.
- Purpose -- better understand decision making by assessing employee motivation and influences on learning.
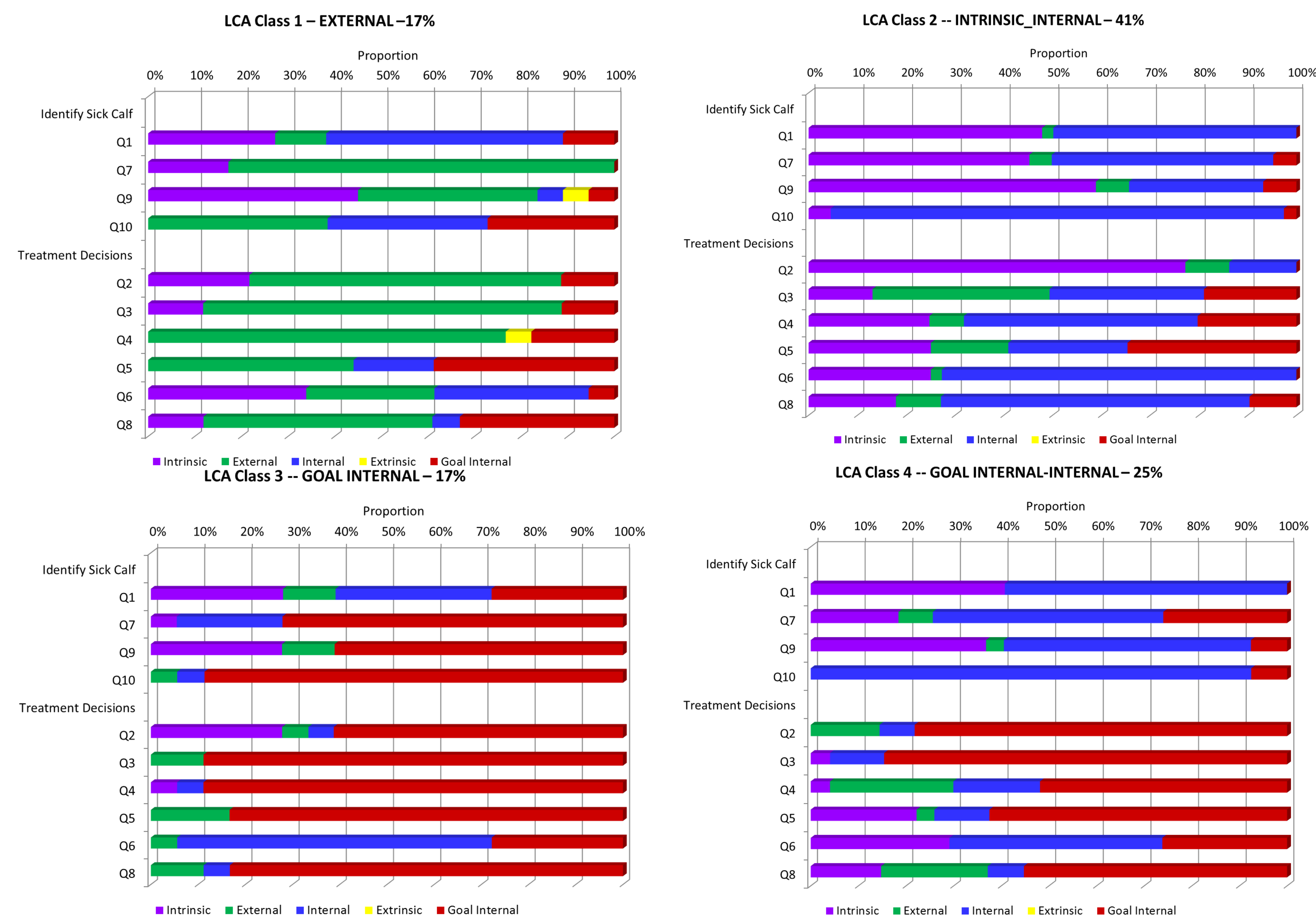
METHODS

- Western United States dairy farms and calf ranches with > 300 pre-weaned calves (>500 milking cows) contacted through their veterinarian to participate.
- Utilizing employee motivation research (Leonard et al. 1999), we developed a survey tool to learn about motivation behind calf treatment decision-making; administered as face-to-face interviews
- 5 motivation-type responses for each of 10 questions
  - Intrinsic: motivated by personal satisfaction with the tasks
  - Extrinsic: motivated by financial rewards
  - Internal: motivated by a belief system and values
  - Goal Internal: motivated to follow the goals of the farm
  - External: motivated by recognition from supervisor or coworkers
- Latent class analysis of motivation-type responses to 10 questions (Proc LCA-SAS)
- Resulting Latent classes evaluated by demographic variables
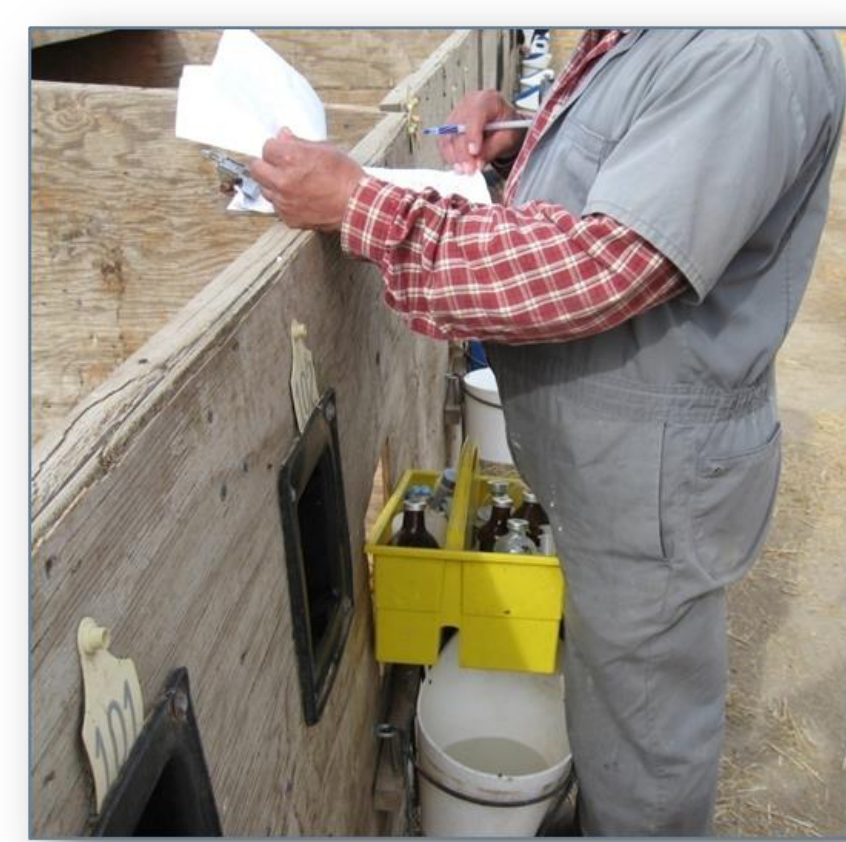
RESULTS

- Most common motivation type overall was INTERNAL. Two answered EXTRINSIC to one question each despite 42% saying that their workplace has a reward system for meeting workplace goals.
- **Sick Calf Identification Questions** – Predominant responses were INTERNAL
- **Calf Treatment Questions** – Predominant responses were GOAL INTERNAL

- Answers to 10 motivation questions fell into 4 latent classes:

LCA Class 1 – EXTERNAL –17%

LCA Class 2 -- INTRINSIC_INTERNAL – 41%

LCA Class 3 -- GOAL INTERNAL – 17%

LCA Class 4 -- GOAL INTERNAL-INTERNAL – 25%

LC1: (17%) identify sick calves & make treatment decisions based on recognition by others

LC2: (41%): identify sick calves & make treatment decisions based on beliefs & satisfaction with tasks

LC3: (17%) identify sick calves & make treatment decisions based on farm goals/protocols

LC4: (25%) identify sick calves based on belief systems but make treatment decisions mostly based on farm goals

VALUES!

CONCLUSIONS

- Providing information to calf care workers is not as simple as "Telling" them what to do.
- There is variability in individual motivations for decision-making and variation in motivation depending on the decision to be made.
- If most are Intrinsic-Internal with respect to deciding when to treat, could be reason for "over treatment".
- Need to provide information on why they might need to do a job a specific way (more background)
- Educational programs for calf care workers also need to incorporate an individual's belief system and values into the messages – specifically that they will be doing the right thing by making a change in antimicrobial use.

Berge ACB, Moore DA, Besser TE, Sischo WM. Targeting therapy to minimize antimicrobial use in pre-weaned calves: effects on health, growth and treatment costs. J Dairy Sci. 2009;92:4707-4714.

Leonard, N. H., Beauvais, L. L., Scholl, R. W. (1999). Work motivation: The incorporation of self-concept-based processes. Human Relations, 52, 969-998.