

Post-intervention Survey on Scaling Back Contact Precautions for MRSA and VRE

Kay Negishi¹, MD; Carolyn Fisher², PhD; Lou Ann Bruno-Murtha¹, DO

¹Department of Medicine, Cambridge Health Alliance, Cambridge, MA; ²Institute for Community Health, Malden, MA

BACKGROUND & OBJECTIVE

In December 2014, CHA discontinued contact precautions (CPs) for methicillin-resistant *Staphylococcus aureus* (MRSA) or vancomycin-resistant Enterococci (VRE) based on lack of evidence showing that MRSA and VRE CPs decrease the rate of transmission of these organisms. There is evidence that patient isolation may cause more harm, such as medication errors and falls, and less time with providers^{1,2}. We surveyed staff's beliefs, comfort, knowledge, and practices surrounding hand hygiene, standard precautions (SPs), and CPs. The goal was to shed light on knowledge gaps, misconceptions, or practice inconsistencies.

METHODS

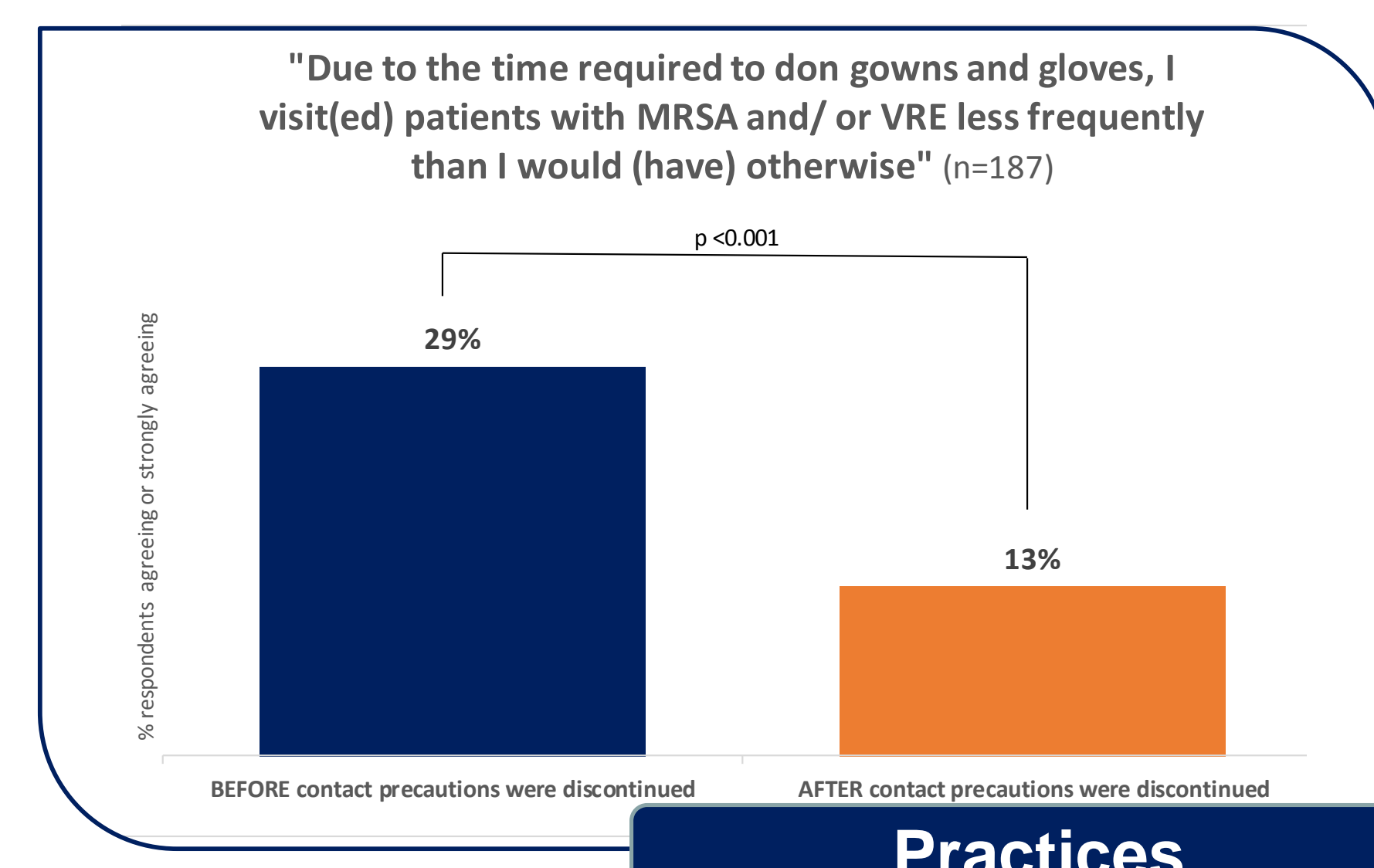
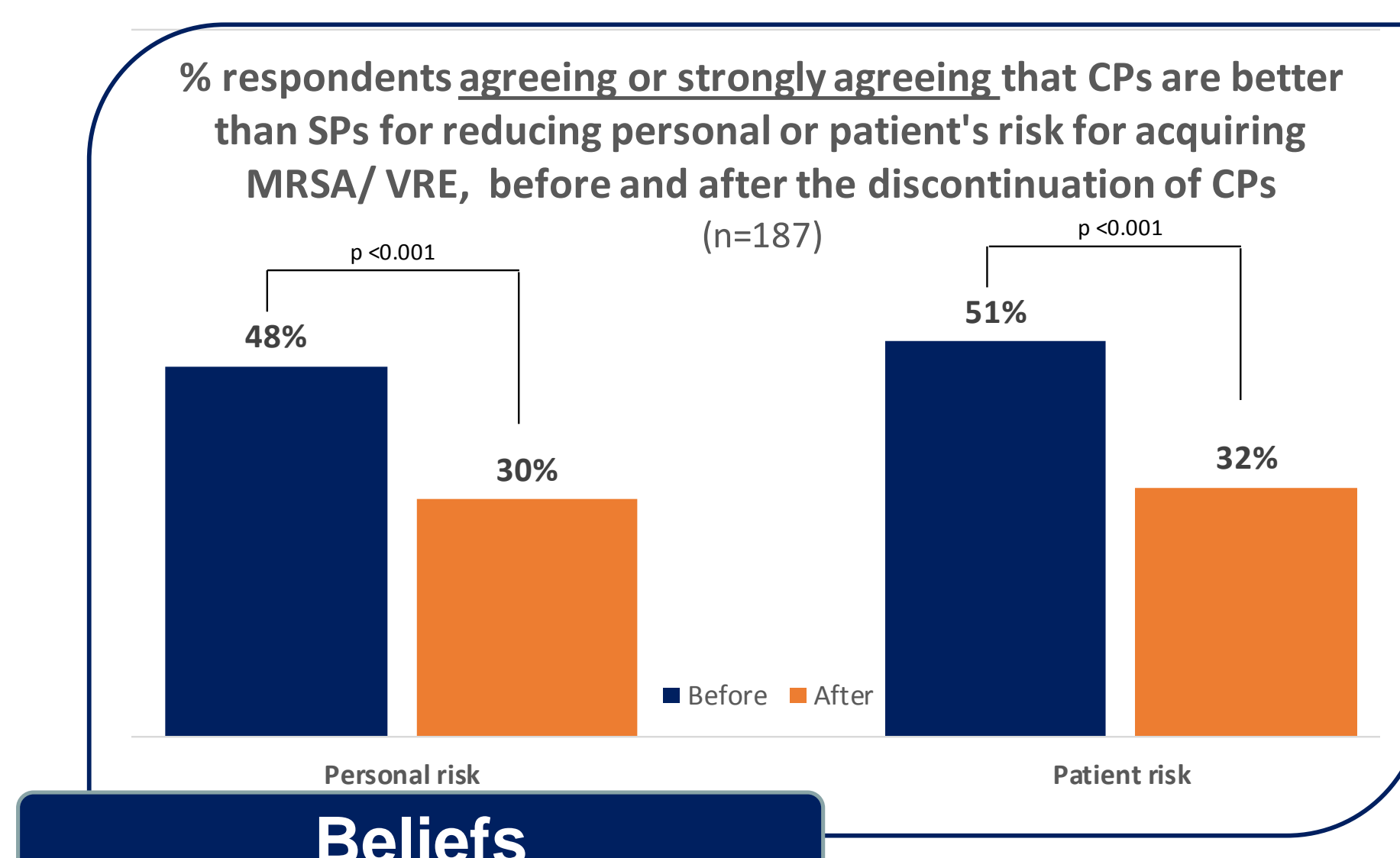
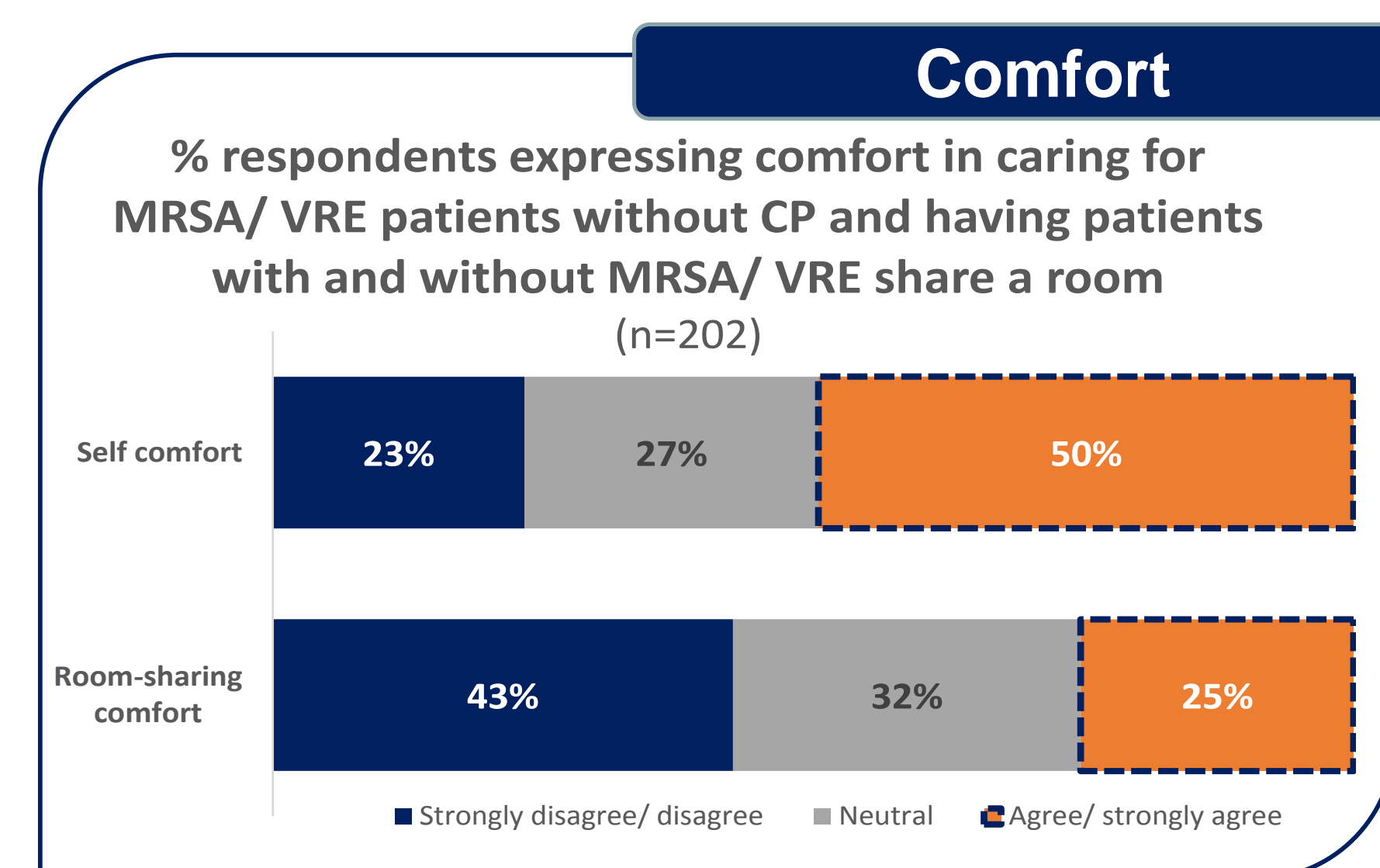
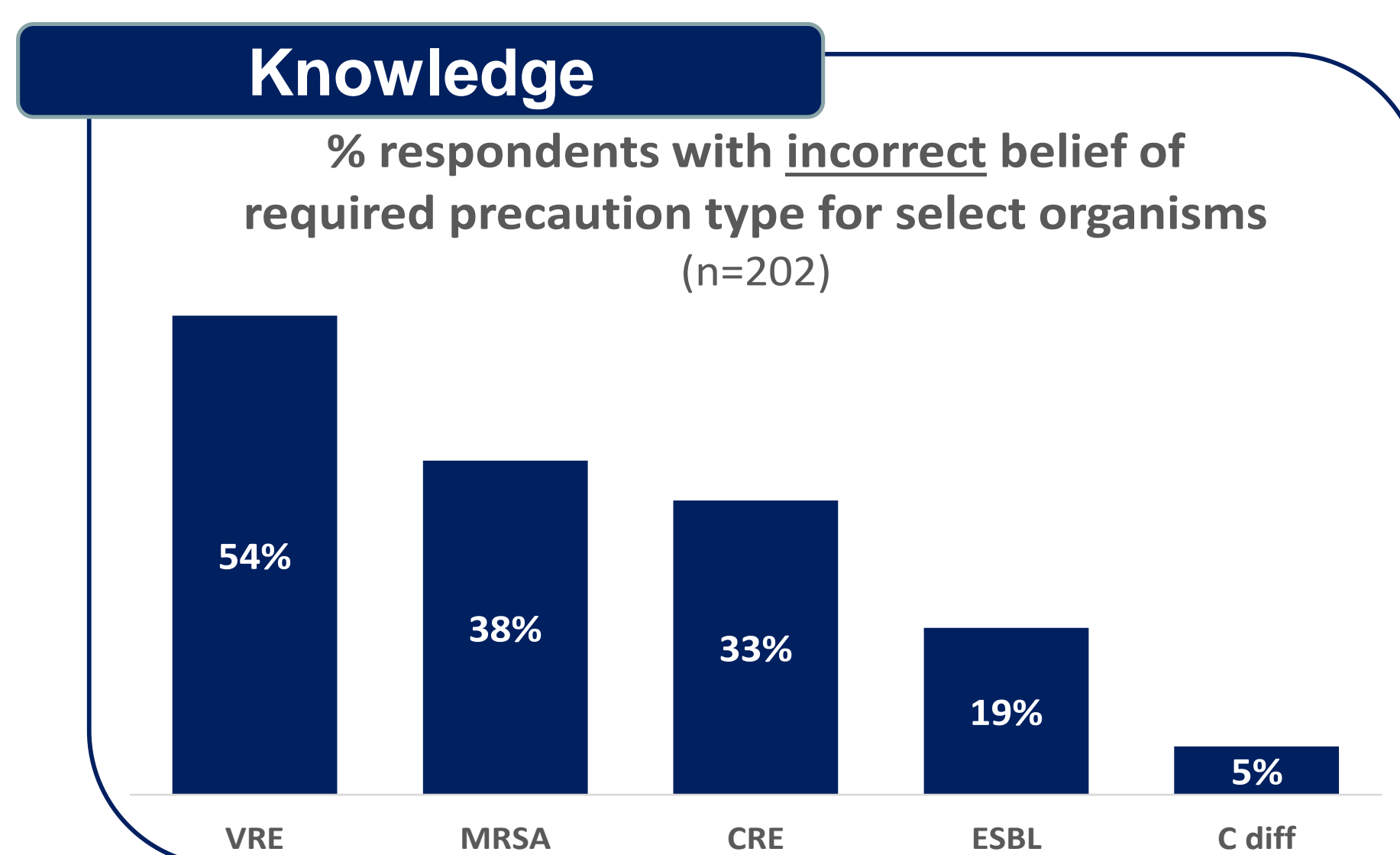
A ten-minute, 38-question English anonymous online survey was designed, piloted in three successive iterations, and deployed in February 2017 to staff who perform clinical work in inpatient and emergency departments. Four email reminders were sent. 100 respondents were randomly selected to receive a \$10 cafeteria gift card. Data were obtained and analyzed via Google tools.

RESULTS

CONCLUSIONS

Table 1. Respondent demographics	Number of respondents	% of respondents
Total inpatient/ emergency staff surveyed	202	-
Role		
Certified Nursing Assistant (CNA)	8	4%
Interpreter	2	1%
Nurse (RN)	89	44%
Nurse Practitioner (NP) or Physician Assistant (PA)	3	1%
Pharmacist	5	2%
Physician (attending)	19	9%
Physician (trainee)	21	10%
Service staff (eg, Transport, Food Services, Housekeeping, Unit secretary)	1	0%
Social services (eg, Case manager, Social worker)	10	5%
Technician (eg, Phlebotomist, Medical technician)	25	12%
Therapist (eg, Respiratory, Physical/ Occupational, Speech, Dietary/ Nutrition)	14	7%
Other	5	2%
Area worked		
Emergency department	39	19%
Intensive care unit	8	4%
Internal medicine/ surgical unit	58	29%
Obstetrics	11	5%
OR	11	5%
Psychiatry	10	5%
Radiology	14	7%
Multiple areas	41	20%
Other	10	5%
Hospital worked*		
Cambridge Hospital	119	59%
Everett Hospital	95	47%
Somerville Hospital	13	6%
Other	3	1%
Number of years at CHA		
< 2 years	48	24%
2 to less than 5 years	49	24%
5 to less than 10 years	23	11%
10 to less than 15 years	34	17%
15 to less than 20 years	10	5%
20 or more years	38	19%

*Respondents may work in multiple hospitals.



DEFINITIONS

- ❖ CP: Contact precautions - use of gowns, gloves, and separate patient rooms
- ❖ CRE: carbapenem-resistant Enterobacteriaceae
- ❖ ESBL: extended spectrum beta-lactamase-producing organisms
- ❖ MRSA: methicillin-resistant *Staphylococcus aureus*
- ❖ SP: Standard precautions - hand hygiene before & after patient contact; gloves when handling body fluids or non-intact skin (including hand hygiene after glove removal); mask/eye protection/gown when likely to be splashed or sprayed; and cleaning equipment with germicidal wipes
- ❖ VRE: vancomycin-resistant Enterococci

REFERENCES

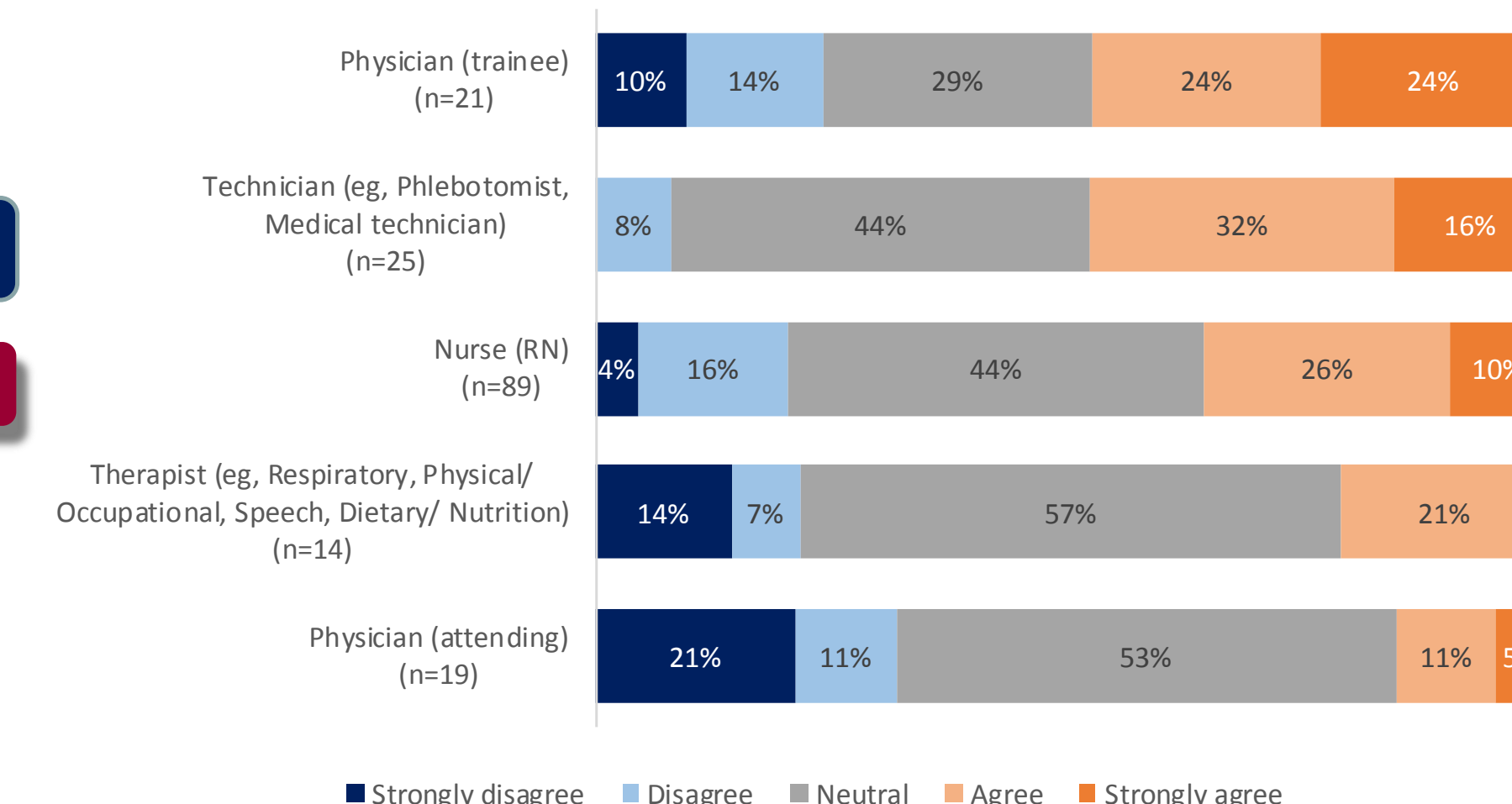
- 1 Morgan DJ et al. Am J Infect Control 2009;37:85-93.
- 2 Morgan DJ et al. Infect Control Hosp Epidemiol 2013;34:69-73.

Quick numbers:
90% recognize unclean hands are the main route of cross-transmission
97% routinely use an alcohol-based handrub for hand hygiene

Proportion of respondents who agree or strongly agree that, since the discontinuation of CPs for MRSA and VRE, there has been an improvement in:

Work efficiency	43%
Job satisfaction	35%
Patient satisfaction	40%

"Contact precautions are better than standard precautions for preventing MRSA and VRE from passing between patients, providers, and the environment."



- ❖ Staff understand the **importance of hand hygiene** in preventing cross-transmission of MRSA and VRE (Independent observations by certified hand hygiene champions show a >90% compliance with hand hygiene).
- ❖ **Misconceptions over correct precautions persist** for nearly all organisms surveyed, especially for VRE, which most respondents (54%) still incorrectly believe requires CPs. Further education is needed.
- ❖ Only a quarter of respondents (25%) feel comfortable when discordant patients share a room, which may highlight a **concern that patients may not adhere to the same level of overall hygiene** as staff to prevent cross-transmission.
- ❖ As a direct outcome of removing CPs for MRSA and VRE, **staff are spending more time with patients** who were previously isolated. This may account for increased perceived job satisfaction and efficiency.
- ❖ Cases of **hospital-acquired MRSA and VRE did not increase** since discontinuation of CPs
- ❖ There are **varying beliefs across professional roles**, which are also reflected in the Beth Israel Deaconess Medical Center's (BIDMC) survey conducted within a year of their intervention. More CHA trainees agree that CPs prevent cross-transmission than BIDMC trainees, although two-thirds of them were not at CHA during the change implementation, suggesting the need for reinforcing rationale for new hires.