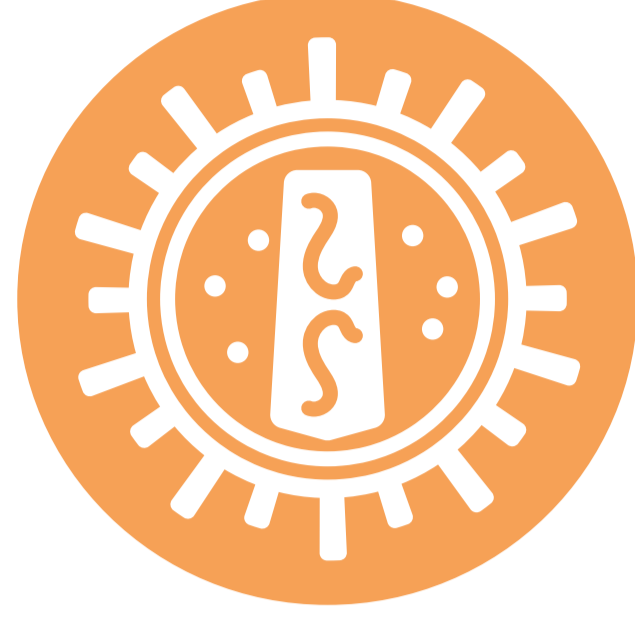


## BACKGROUND

Stigma in people living with HIV impacts societal practices and experiences, contributes to ongoing health disparities and healthcare outcomes, and can lead to concealment, social exclusion, and isolation.<sup>1</sup> Chronic stress can have far-reaching outcomes, including an increased risk of accumulating comorbidities and reduced life expectancy. Here, we assessed if online independent medical education could increase HIV and infectious disease (ID) physicians' knowledge and confidence regarding the impact of stigma-induced stress.



## METHODS

As part of a larger curriculum, we developed an online CME activity titled: "The Physical Implications of Stigma in People Living with HIV". The goal was for learners to have an increased knowledge of the impact of stigma, and interventions to tackle stigma. The activity was a 15-minute discussion between 2 leading experts, accompanied with slides. The activity is currently available on Medscape from 3/13/2024 until 3/13/2025, and the data was collected from 3/13/2024 through 5/24/2024.

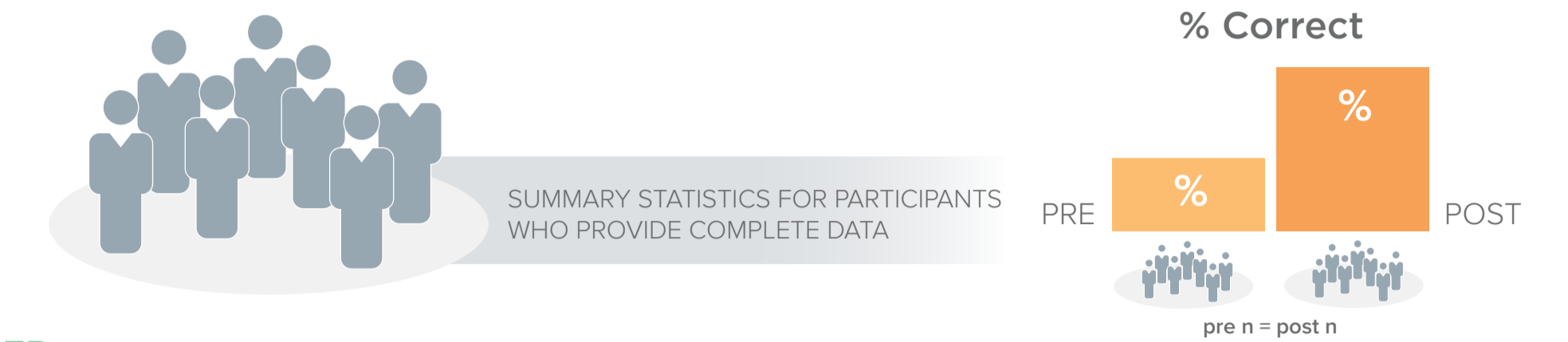
A total of 478 ID/HIV specialists participated in the activity, of whom 34 completed the pre- and post activity questions.



### How to Read the Linked Learner Assessment

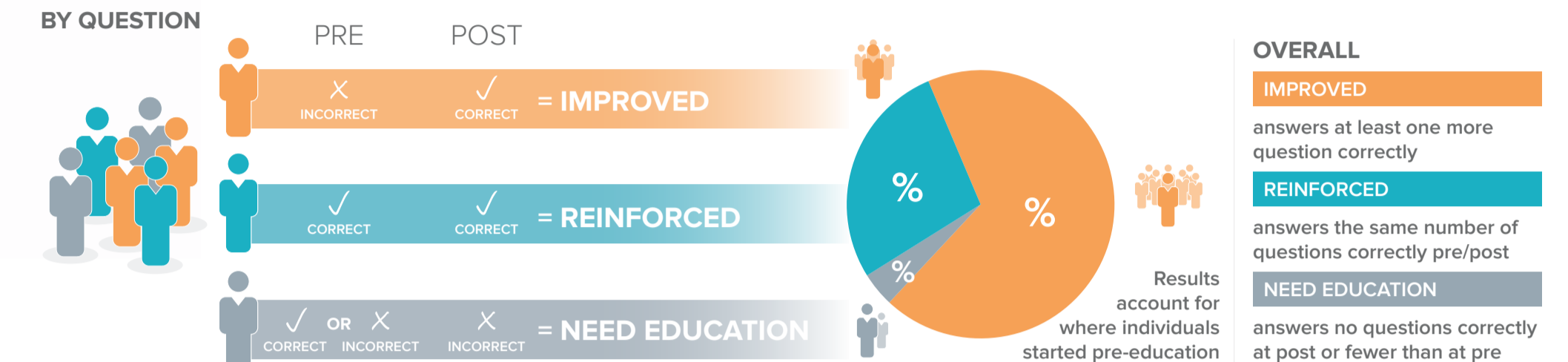
#### OUTCOMES COMPLETERS

Each individual completed BOTH the pre and post-education questions – SAME individuals pre and post-education



#### LINKED LEARNER

Each individual tracked pre and post-education – Learners serve as their own controls



## RESULTS

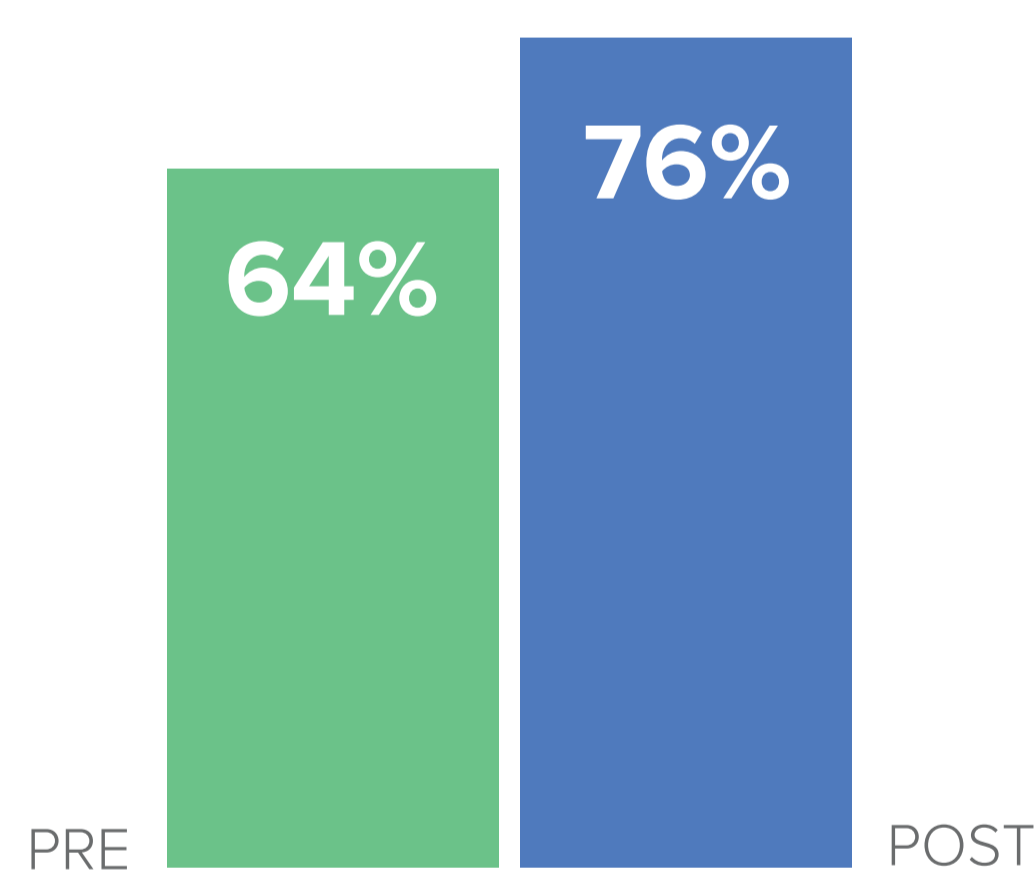
Overall 76% of ID/HIV specialists, improved their knowledge on the physical implications of stigma indicating a considerable effect of the education. The average percentage of correct responses rose from 64% to 76% for ID/HIV specialists pre-activity to post-activity.

32% of ID/HIV specialists had a measurable improvement in confidence in their ability to communicate the impact of stigma on health, and the interventions to tackle stigma.

### OVERALL

ID/HIV specialists (n = 478)

#### AGGREGATED RESULTS



#### COHEN'S D

0.55

EFFECT SIZE	EDUCATIONAL IMPACT
< .20	MODEST
.20 - .49	SMALL
.5 - .79	MODERATE
≥ 0.80	LARGE

#### CHI-SQUARE TEST

**P < .01**

SIGNIFICANCE (P < .05)

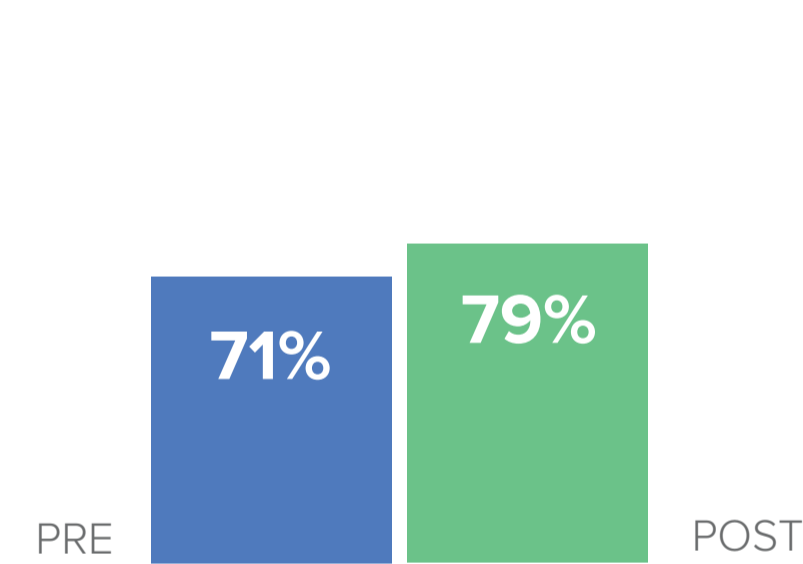
### QUESTION 1 RESULTS

The activity resulted in 80% of the learners with improved or reinforced knowledge regarding the cellular impact of stigma-induced stress.

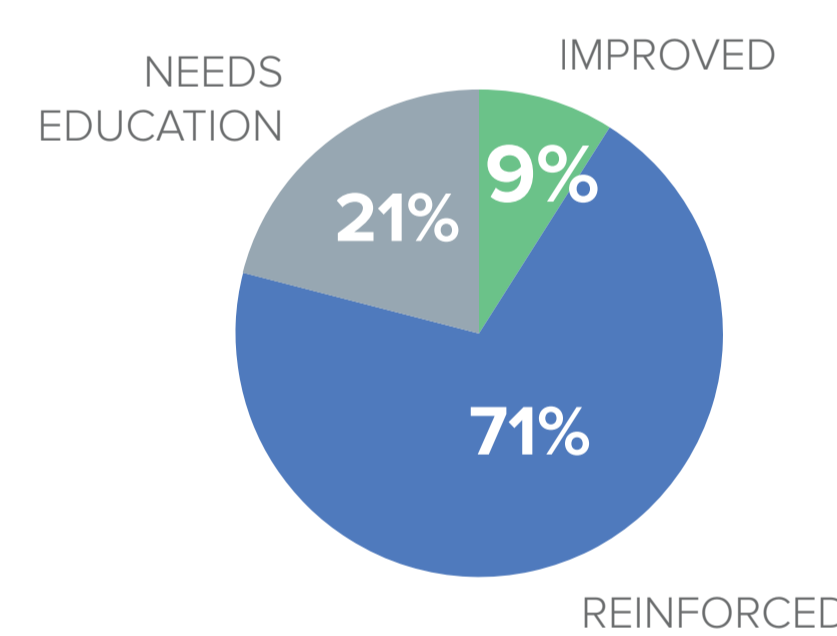
QUESTION: Chronic stress, such as that experienced by stigmatized people living with HIV, has been shown to activate a conserved transcriptional response to adversity (CTRA) pathway. Which of the following is a downstream consequence of CTRA activation (Correct Answer: Inflammation)

ID/HIV specialists (n = 34)

#### AGGREGATED RESULTS



#### LINKED LEARNING RESULTS



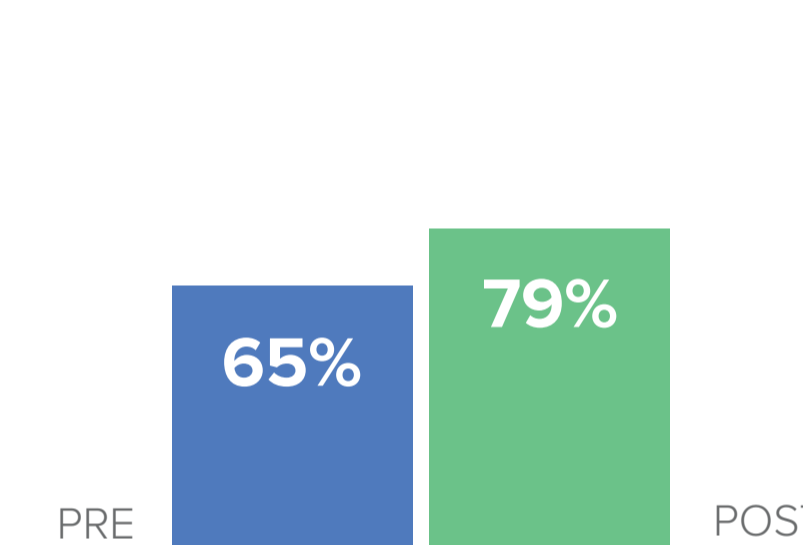
P = .083

### QUESTION 2 RESULTS

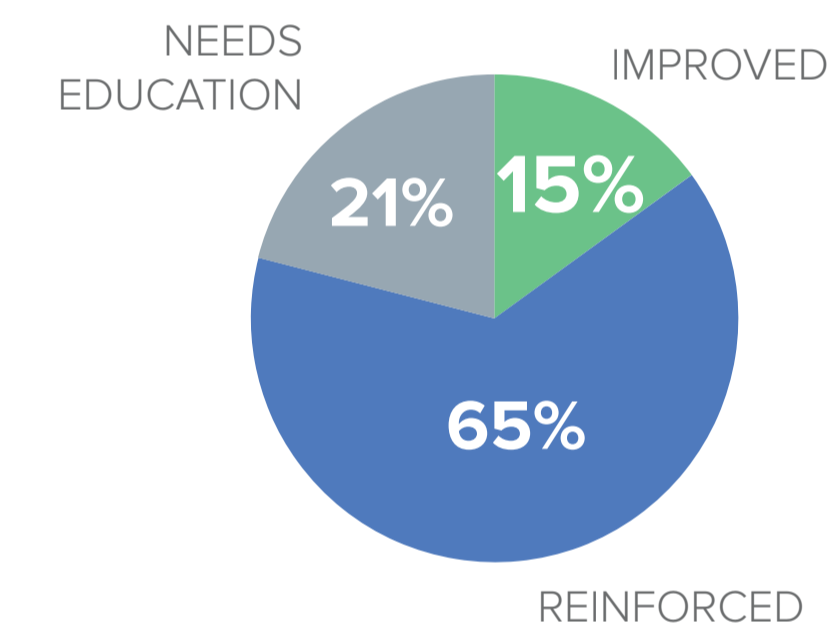
QUESTION: In a study assessing modifiable risk factors associated with the occurrence of myocardial infarction, among the most important modifiable risk factors found, how was chronic stress ranked? (Correct Answer: Third)

ID/HIV specialists (n = 34)

#### AGGREGATED RESULTS



#### LINKED LEARNING RESULTS



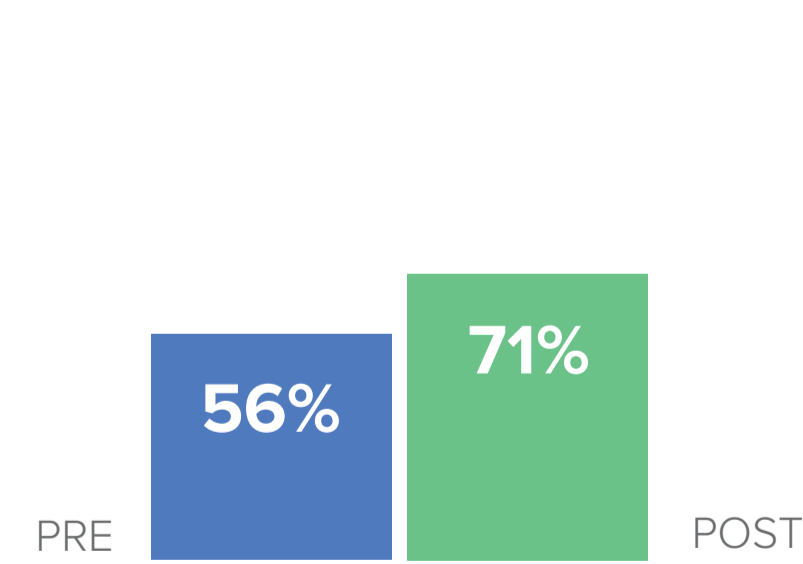
P < .05

### QUESTION 3 RESULTS

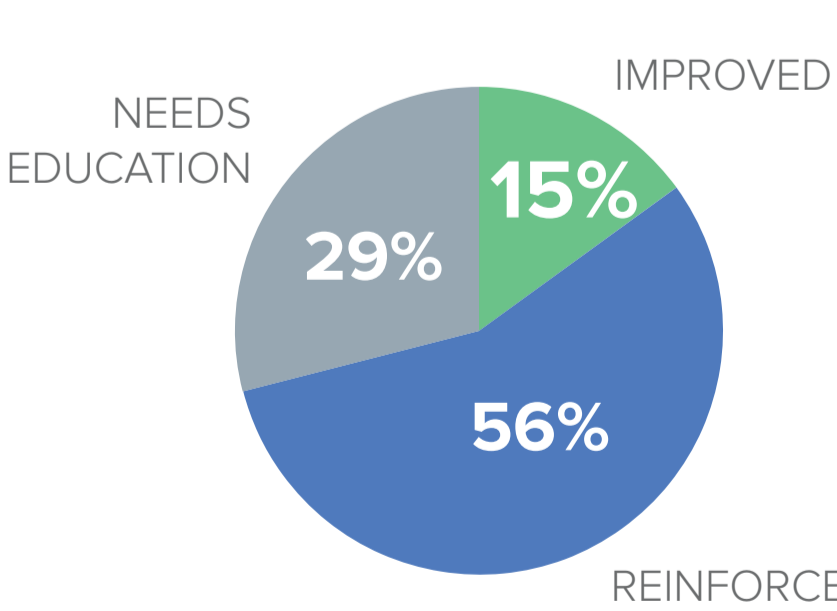
QUESTION: Which of the following HIV treatment-related factors has been associated with protection against the negative impact of stigma in people living with HIV? (Correct Answer: Undetectable = untransmissible education)

ID/HIV specialists (n = 34)

#### AGGREGATED RESULTS



#### LINKED LEARNING RESULTS



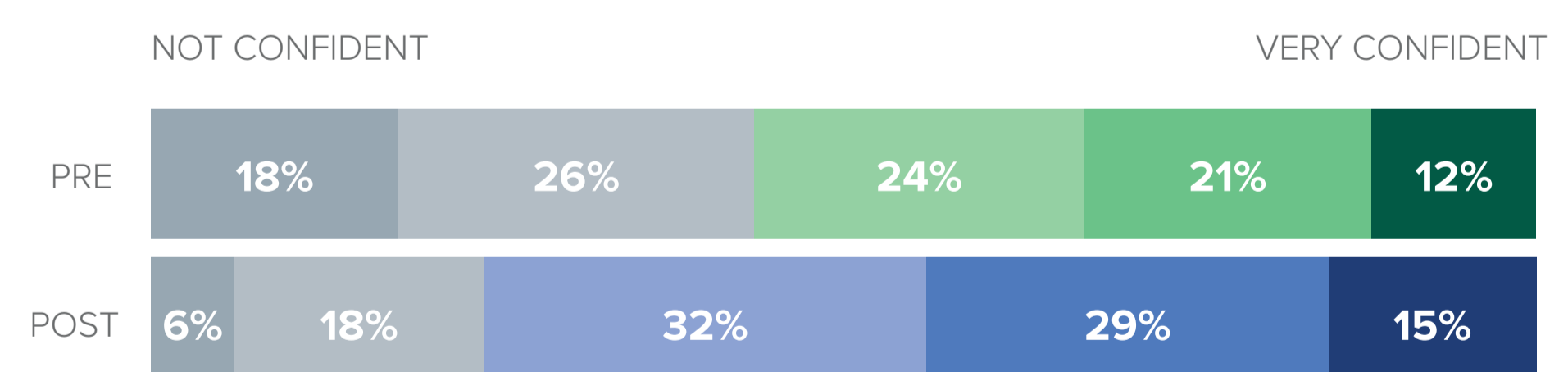
P < .05

### SELF-EFFICACY RESULTS

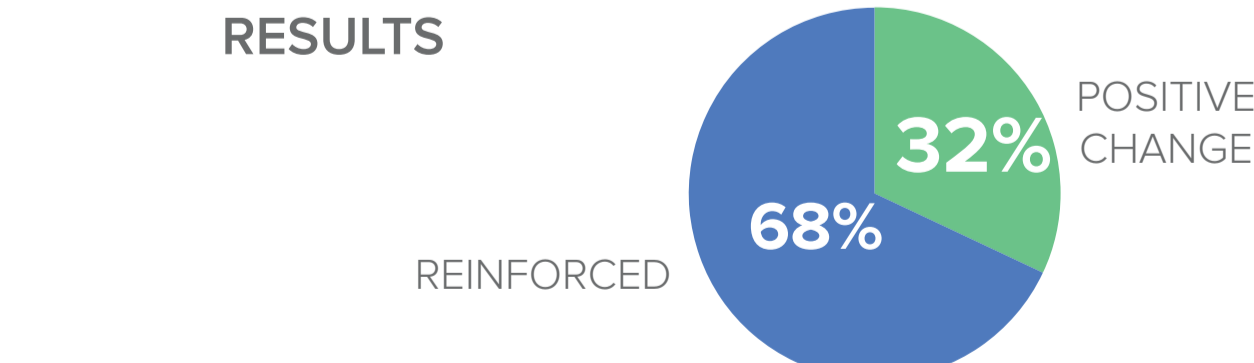
For the 34 HIV specialists who participated in the activity "The Physical Implications of Stigma in People Living with HIV," there was a 70% confidence shift concerning their ability to communicate with their patients about the impact of stigma.

QUESTION: How confident are you right now in your ability to communicate with your patients about the impact of stigma on their health and interventions to tackle stigma? (Select ranking from 1 [Not confident] to 5 [Very confident])

ID/HIV specialists (n = 34)



#### LINKED LEARNING RESULTS



## CONCLUSIONS

This online CME activity significantly improved ID/HIV specialists' knowledge regarding the consequences of stress and stigma on people living with HIV. There were significant confidence gains in physician ability to communicate to patients about the impact and interventions for stigma. However, there is room for further improvement, as 44% of physicians provided incorrect answers post-education. By further addressing these educational gaps, physicians will be better equipped to care for patients living with HIV.

### ACKNOWLEDGEMENTS

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- Orkin C, Karris M.Y. The physical implications of stigma in people living with HIV. March 13, 2024. <https://www.medscape.org/viewarticle/1000379>



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