

JULIA DUFFEY, PhD; SHANTHI VOORN, PhD: WebMD Global LLC, New York, USA; CLÍONA NÍ CHEALLAIGH, MB, BAO, BCh, MRCP, PhD: Associate Professor Consultant, Department of Clinical Medicine, Trinity College, Dublin, Ireland; MAILE YOUNG KARRIS, MD: Associate Professor of Medicine, University of California San Diego, San Diego, California, United States; JURGEN ROCKSTROH, MD: Professor of Medicine, Head of HIV Outpatient Clinic, University of Bonn, Bonn, Germany

## BACKGROUND

People living with HIV (PLWHIV) experience high levels of stigma which may manifest as self-stigma, perceived stigma, or external/enacted stigma<sup>1,2</sup>. Stigma is also compounded by experiencing health inequity. Experiencing stigma has been found to impact PLWHIV antiretroviral adherence, virological failure, morbidity, and mortality<sup>3,4</sup>. We assessed whether an online independent medical education activity could improve the knowledge and confidence of HIV physicians and public health and preventive medicine specialists (PHPMs) regarding the impact that stigma has for PLWHIV and the association between stigma and other negative health outcomes.



## METHODS

A 30-minute in depth round table discussion between 3 leading experts in the management of PLWHIV<sup>5</sup>. The activity was launched in 4/6/2021 and data collected from 4/6/2021 to 10/14/2021.

### PRE-ASSESSMENT

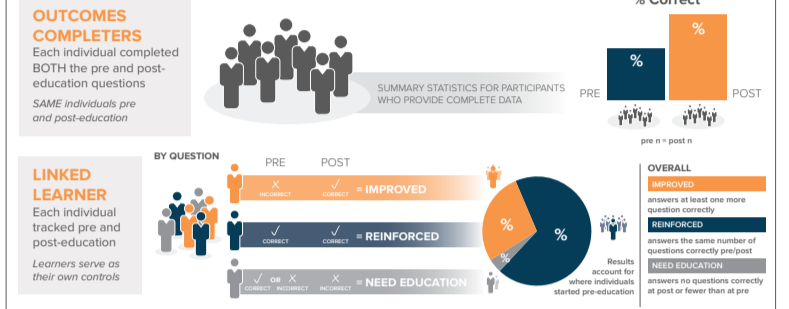
HIV Physicians (n = 58)  
Public Health and Preventive Medicine Specialists (n = 63)



### POST-ASSESSMENT

HIV Physicians (n = 58)  
Public Health and Preventive Medicine Specialists (n = 63)

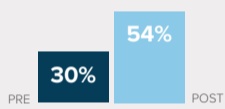
### How to Read the Linked Learner Assessment



## RESULTS

### HIV Physicians (n = 58)

#### AGGREGATED RESULTS



#### COHEN'S d

0.82

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

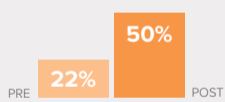
#### CHI-SQUARE TEST

**P < .001**

SIGNIFICANCE (P < .05)

### PH/PM Specialists (n = 63)

#### AGGREGATED RESULTS



#### COHEN'S d

0.73

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

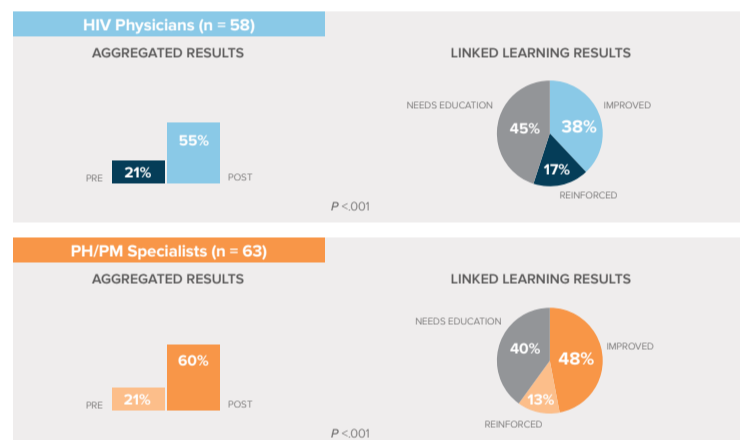
#### CHI-SQUARE TEST

**P < .001**

SIGNIFICANCE (P < .05)

### QUESTION 1 RESULTS

The activity resulted in large and significant knowledge gains for both specialties regarding the impact of stigma on health outcomes in PLWHIV

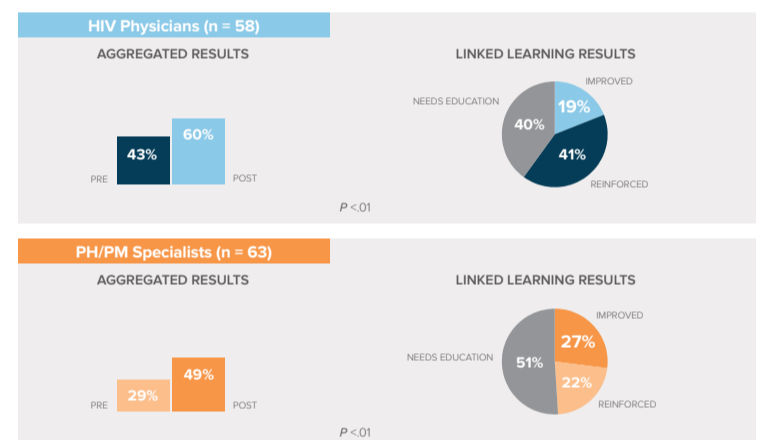


How much higher is the prevalence of bipolar disease in individuals who experience stigma? (Correct Answer: 45%)

### QUESTION 2 RESULTS

### QUESTION 2 RESULTS

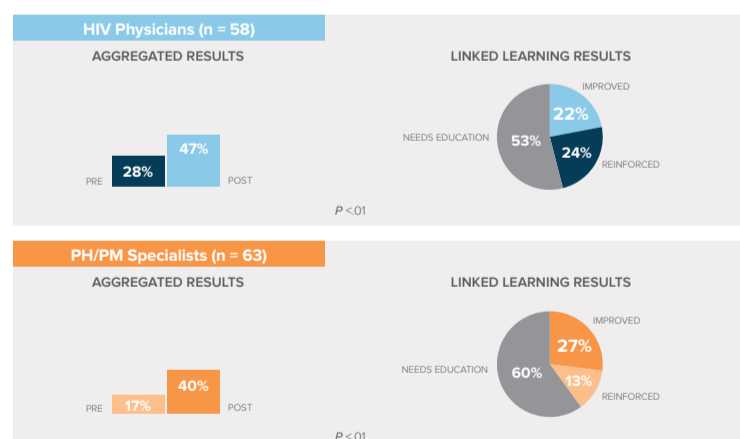
A significant increase in knowledge regarding the levels and types of stigma aging PLWHIV experience was reported for both HIV physicians and public health and preventive medicine specialists



Aging people living with HIV (PLWH) experience multiple forms of stigma. Which of the following types of stigma is NOT specifically associated with stigma that aging PLWH experience? (Correct Answer: Being seen as a burden on caregivers)

### QUESTION 3 RESULTS

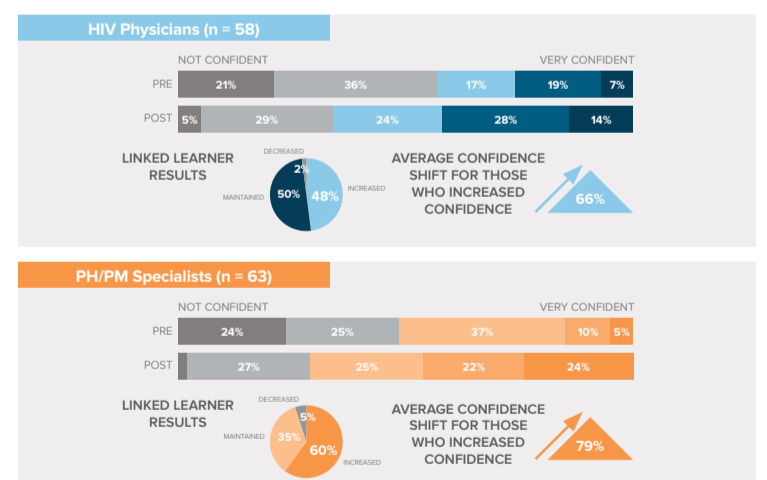
Education significantly improved HIV and public health and preventive medicine specialists knowledge regarding the impact of stress, depression, and stigma on the immune system



In female macaque monkeys, stigma has been found to negatively impact which of the following immune system functions? (Correct Answer: Immune cell proportions)

### CONFIDENCE ANALYSIS

60% of public health and preventive medicine specialists and 48% of HIV physicians had a measurable improvement in confidence following education with very high average total confidence shifts of 79% and 66% for public health and preventive medicine specialists and HIV physicians, respectively



How confident are you right now in assessing stigma in your patients with HIV? (Select ranking from 1 [Not confident] to 5 [Very confident])

## CONCLUSIONS

- Online medical education significantly improved physician knowledge regarding the types of stigma that PLWHIV experience and the consequences of stigma on PLWHIV's mental health.
- Additionally, physicians who participated in the education experienced an increase in their confidence to assess stigma and the consequences of stigma for their patients living with HIV.
- These knowledge and confidence gains have important implications for physicians who manage patients with HIV so they can advance their understanding regarding the burden that stigma can exert on PLWHIV's overall health, mental health, presence of comorbidities and adherence to antiretroviral therapy

### ACKNOWLEDGEMENTS

Supported by an independent educational grant from ViiV Healthcare.  
www.medscape.org/viewarticle/948521

For more information, please contact:  
Dr Julia Duffey  
juliaduffey@hotmail.com

### REFERENCES

1. Neuman M, Obermeyer CM; MATCH Study Group. Experiences of stigma, discrimination, care and support among people living with HIV: a four country study. *AIDS Behav*. 2013 Jun;17(5):1796-808
2. Earnshaw VA, Chaudoir SR. From conceptualizing to measuring HIV stigma: a review of HIV stigma mechanism measures. *AIDS Behav*. 2009 Dec;13(6):1160-77
3. Shubber Z, Mills EJ, Nachega JB, Vreeman R, Freitas M, Bock P, Nsanzimana S, Penazzato M, Appolo T, Doherty M, Ford N. Patient-Reported Barriers to Adherence to Antiretroviral Therapy: A Systematic Review and Meta-Analysis. *PLoS Med*. 2016 Nov 29;13(11):e1002183
4. Nachega JB, Marconi VC, van Zyl GU, Gardner EM, Preiser W, Hong SY, Mills EJ, Gross R. HIV treatment adherence, drug resistance, virologic failure: evolving concepts. *Infect Disord Drug Targets*. 2011 Apr;11(2):167-74
5. www.medscape.org/viewarticle/948521



Scan here to view this poster online.