Challenges in Pulmonary and Critical Care: 2020

Final Live Outcome Report

Chronic Obstructive Pulmonary Disease: Evidence 2020

AstraZeneca Pharmaceuticals Grant ID: 63463037

February 9, 2021

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Executive Summary

This activity focused on personalization of pharmacotherapy for COPD, using current therapeutic strategies, and recognizing unique patient characteristics and treatable traits; to select appropriate inhalation devices to optimize therapeutic delivery and adherence, and to recognize strategies to manage COPD exacerbations.

548 total attendees

1 Live Virtual Broadcast

- 548 attendees in multiple professional specialties were reached in this program.

- Improvement across all learning domains was noted ranging from 18% to an impressive 327%

Overall, the program improved the ability of learners to recognize the GOLD therapeutic paradigm of "treatable traits"; identify the most common patient technique error associated with dry powder inhalers; evaluate the trial outcomes associated with fixed triple therapy ICS/LABA/LAMA versus LABA/LAMA dual therapy; and recognize strategies most effective in reducing rehospitalization.

Persistent Educational Gaps

Despite educational gains, PCA scores demonstrate some loss of these educational gains over time:
- Identification of the GOLD therapeutic "treatable traits"
- Recognizing the most common error in technique made by patients when using dry powder inhalers
- Identifying strategies most likely to reduce rehospitalizations.

Significant baseline educational gaps in pre-activity learners were noted:
- Despite GOLD recommendations, only 35% used the "treatable trait" paradigm "often" or "always" when caring for patients with COPD
- Only 15% correctly identified the most common error in technique made by patients when using dry powder inhalers
- Only 35% recognize that scheduling a clinic visit within 30 days of discharge was the most effective strategy to reduce rehospitalization.

These findings represent clear gap in knowledge and an unmet need among clinicians, underscoring that this topic continues to be an important area for future educational programs.

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*These numbers represent the total number of attendees, irrespective of assessment participation

Learning Objectives

- Personalize COPD pharmacotherapy according to current therapeutic strategies highlighting unique patient characteristics and treatable traits

- Select appropriate inhalation device for patients with COPD, to optimize their therapeutic delivery and adherence

- Recognize appropriate strategies to manage COPD exacerbations

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Commercial Support

The Challenges in Pulmonary and Critical Care 2020 CME activity was supported through educational grants or donations from the following companies:

- Actelion Pharmaceuticals US, Inc.

- AstraZeneca Pharmaceuticals

- Bayer HealthCare Pharmaceuticals Inc.

- Grifols

- Jazz Pharmaceuticals, Inc.

- ST Shared Services LLC

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Levels of Evaluation

Consistent with the policies of the ACCME, NACE evaluates the effectiveness of all CME activities using a systematic process based on Moore's model. This outcome study reaches Level 5.

Level 1: Participation

Level 2: Satisfaction

**Level 3: Declarative and Procedural Knowledge**

Level 4: Competence

Level 5: Performance

Level 6: Patient Health

Moore DE Jr, Green JS, Gallis HA. Achieving desired results and improved outcomes: integrating planning and assessment throughout learning activities. J Contin. Educ. Health Prof. 2009 Winter;29(1):1-15

Level 7: Community Health

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Level 1:
Participation and Demographics

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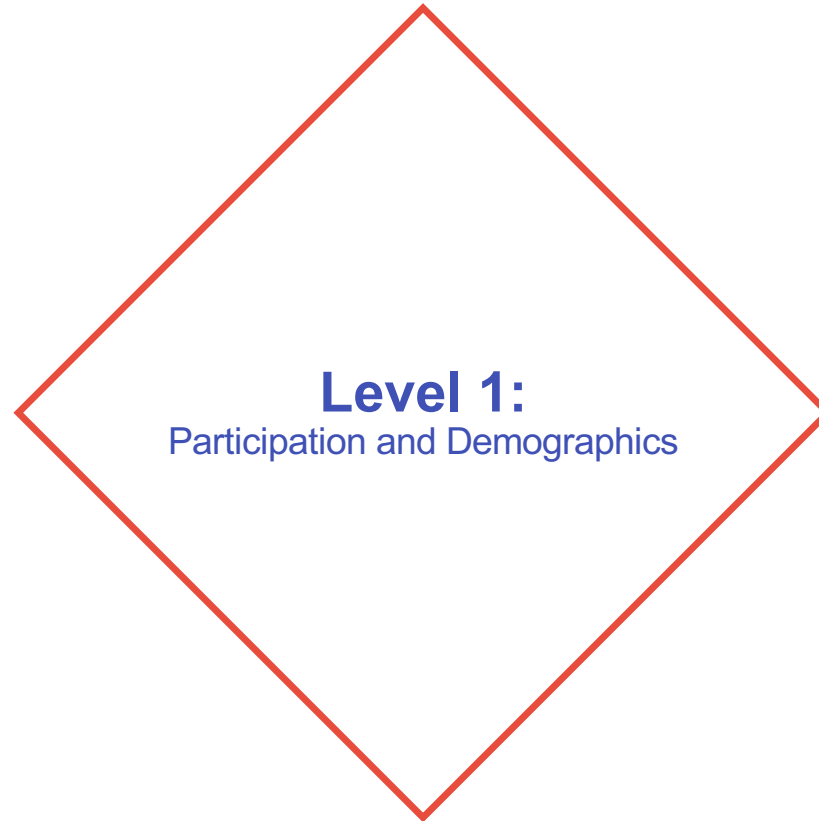
Level 1: Participation

548 total attendees

1 Live Virtual Broadcast

95%

Provide direct
patient care

Activity	Date	Attendees
Challenges in Pulmonary and Critical Care	12/12/2020	548
Total		**548**

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Level 1: Demographics and Patient Reach

Specialty

Family Medicine	Internal Medicine	Pulmonology	Cardiology	Other
24%	26%	26%	6%	19%
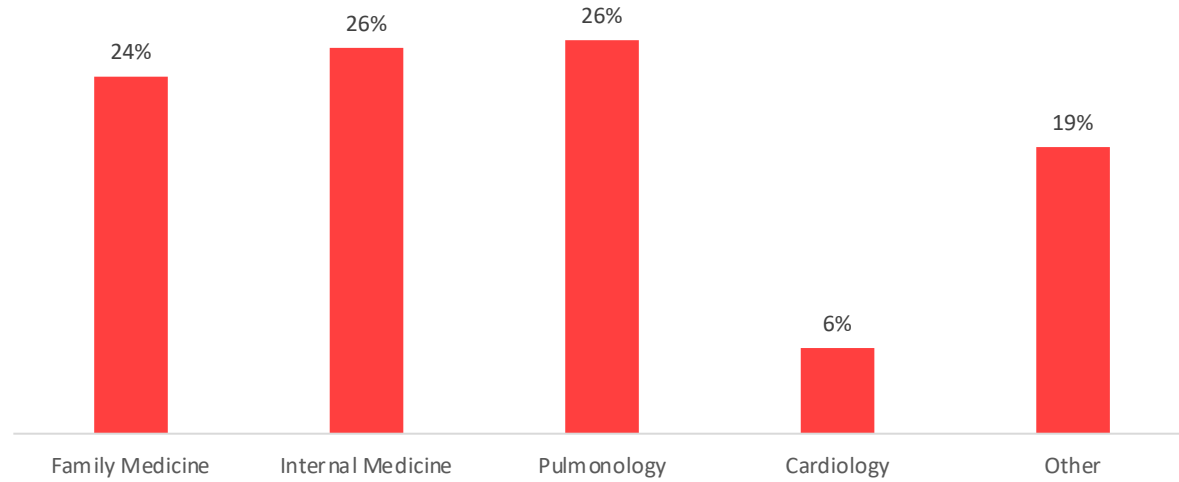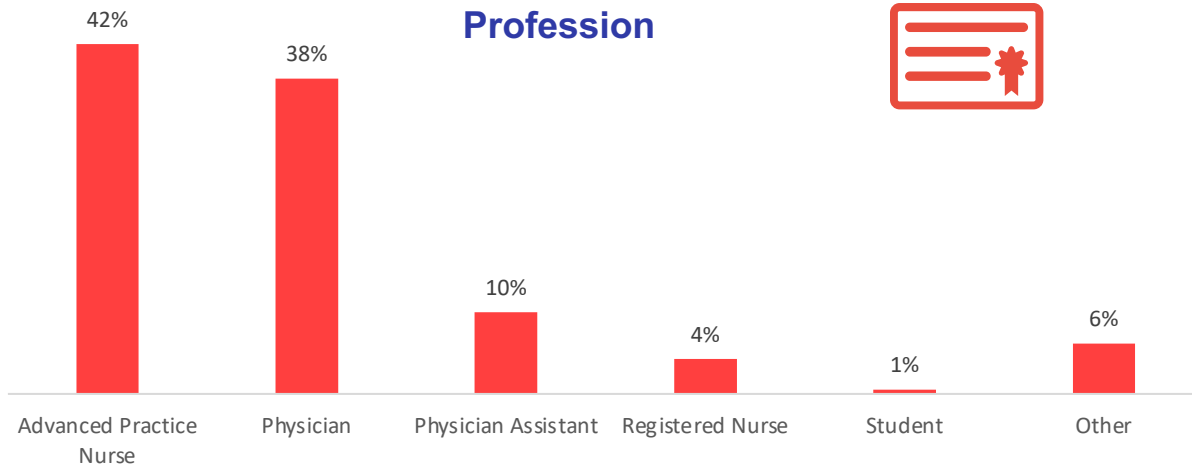
Patients seen each week, in any clinical setting:

>75	22%
51-75	17%
25-50	33%
<25	28%

Profession

Advanced Practice Nurse	Physician	Physician Assistant	Registered Nurse	Student	Other
42%	38%	10%	4%	1%	6%

Years in Practice

<5	5-10	11-20	>20
21%	14%	26%	39%
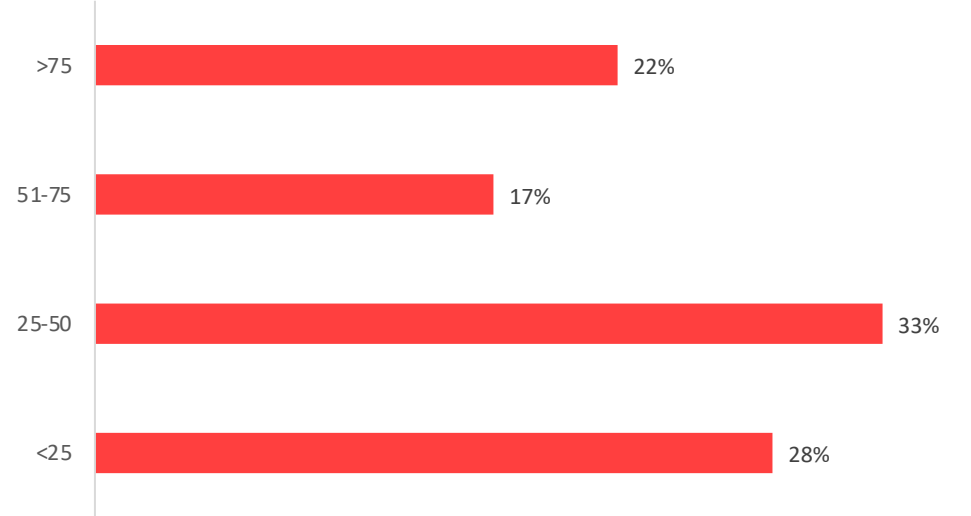
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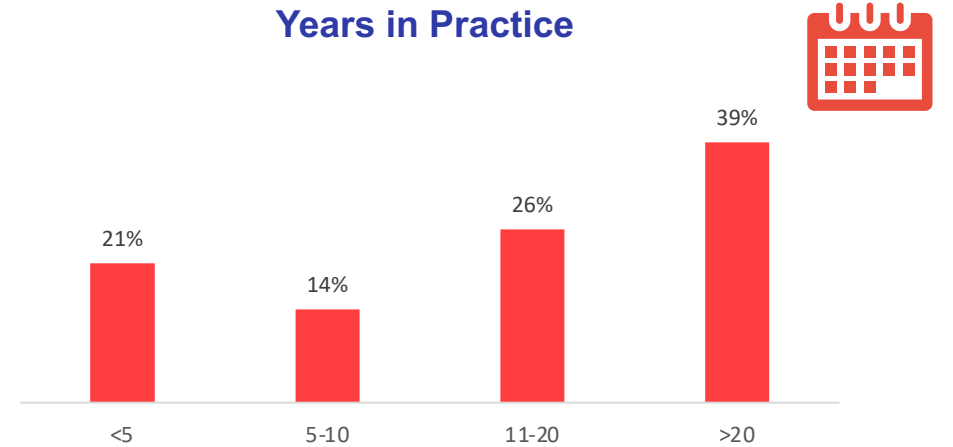
Level 2-5:
Outcomes Metrics

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Level 2: Satisfaction

97% rated the activity as excellent

98% indicated the activity improved their knowledge

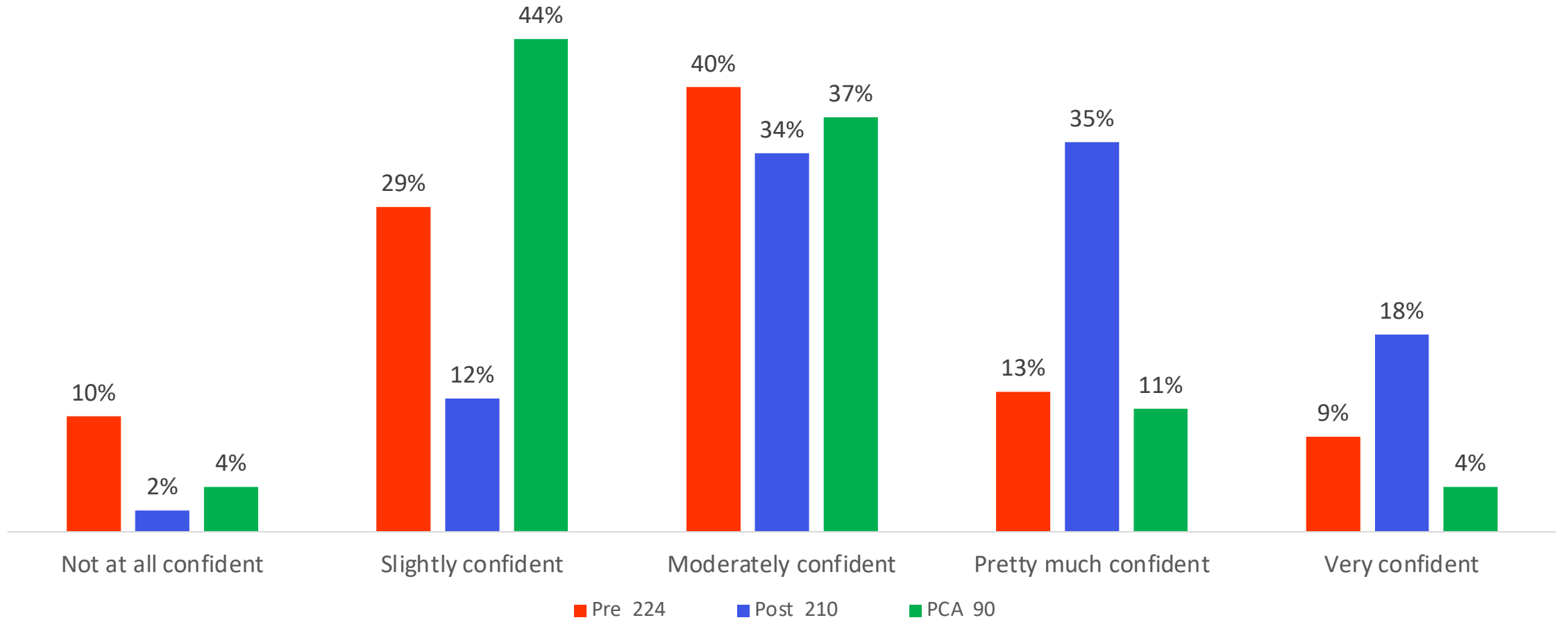**95%** stated that they learned new and useful strategies for patient care

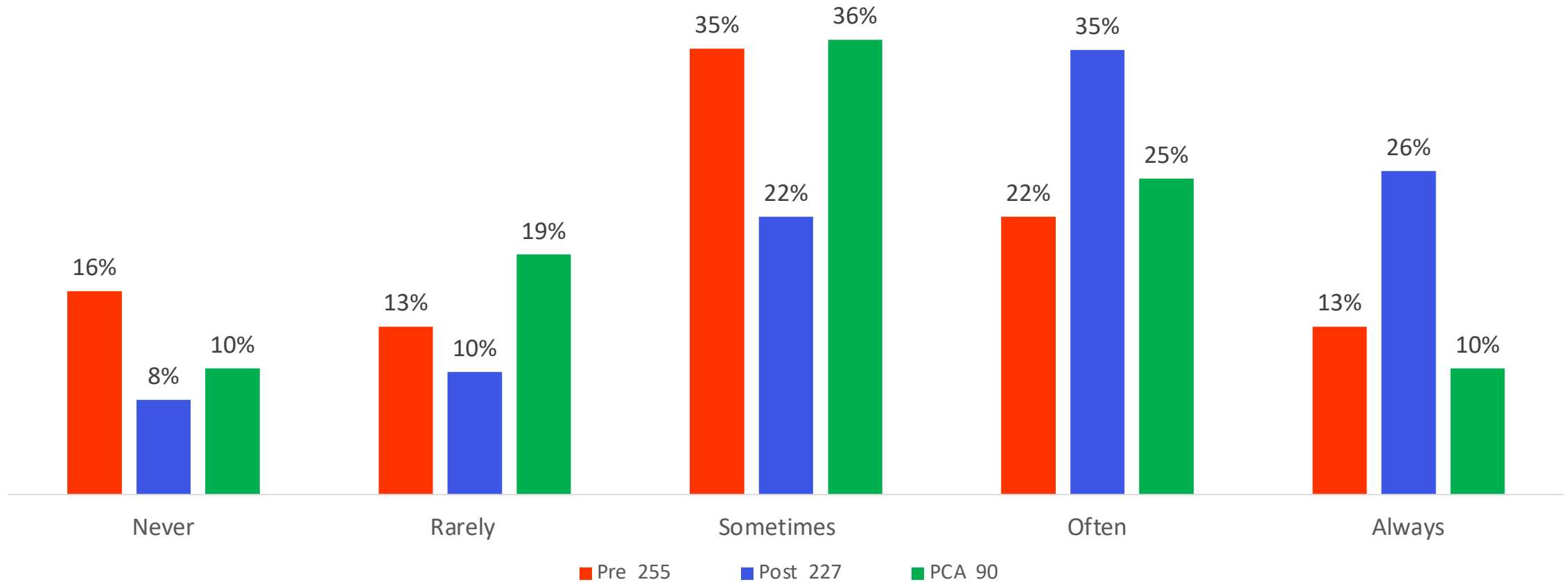**86%** said they would implement new strategies that they learned

97% said the program was fair-balanced and unbiased

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Practice Assessment

How often do you use a "treatable trait" approach to individualizing COPD therapy?
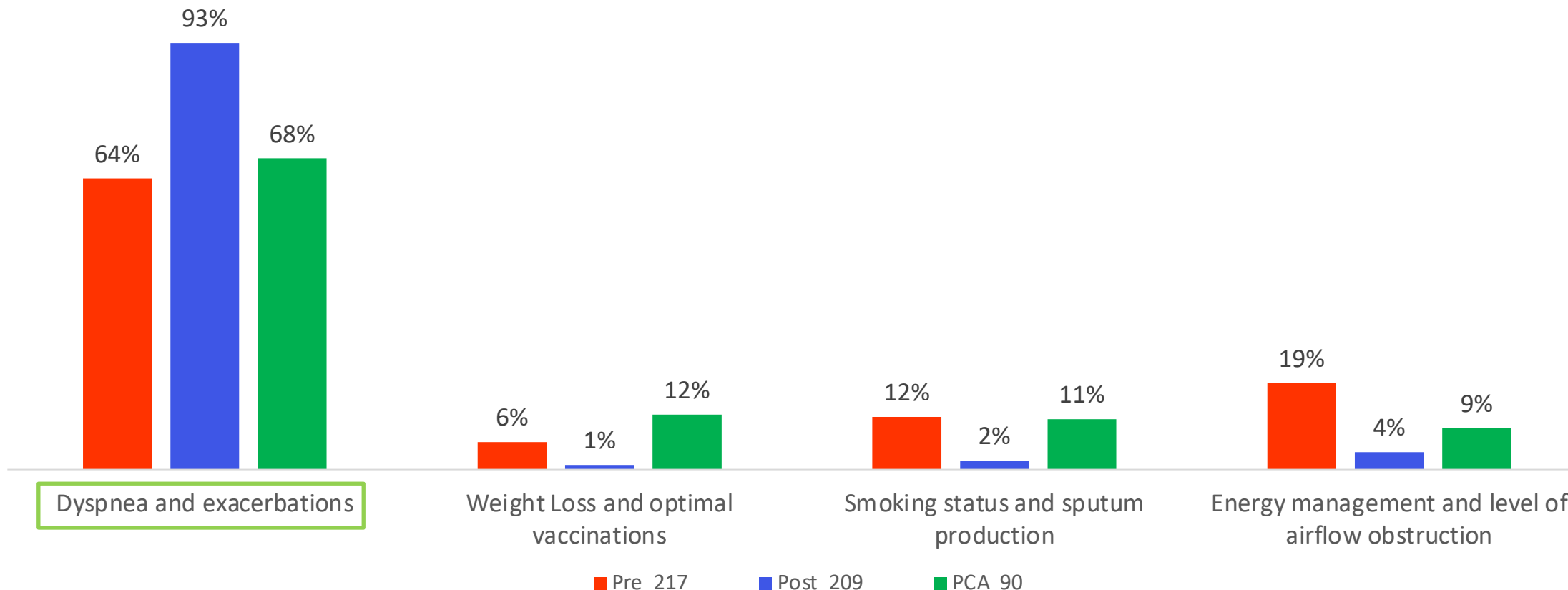
Knowledge Assessment
The most common error made by COPD patients in using a dry powder inhaler is:

P Value: <0.05

64%

52%

37%

25%

21%   17%   21%

15%

17%

15%

13%

4%

Not inhaling forcefully   Not holding device correctly   Exhaling into the mouthpiece   No exhaling to residual volume before inhaling

■ Pre 221   ■ Post 208   ■ PCA 90
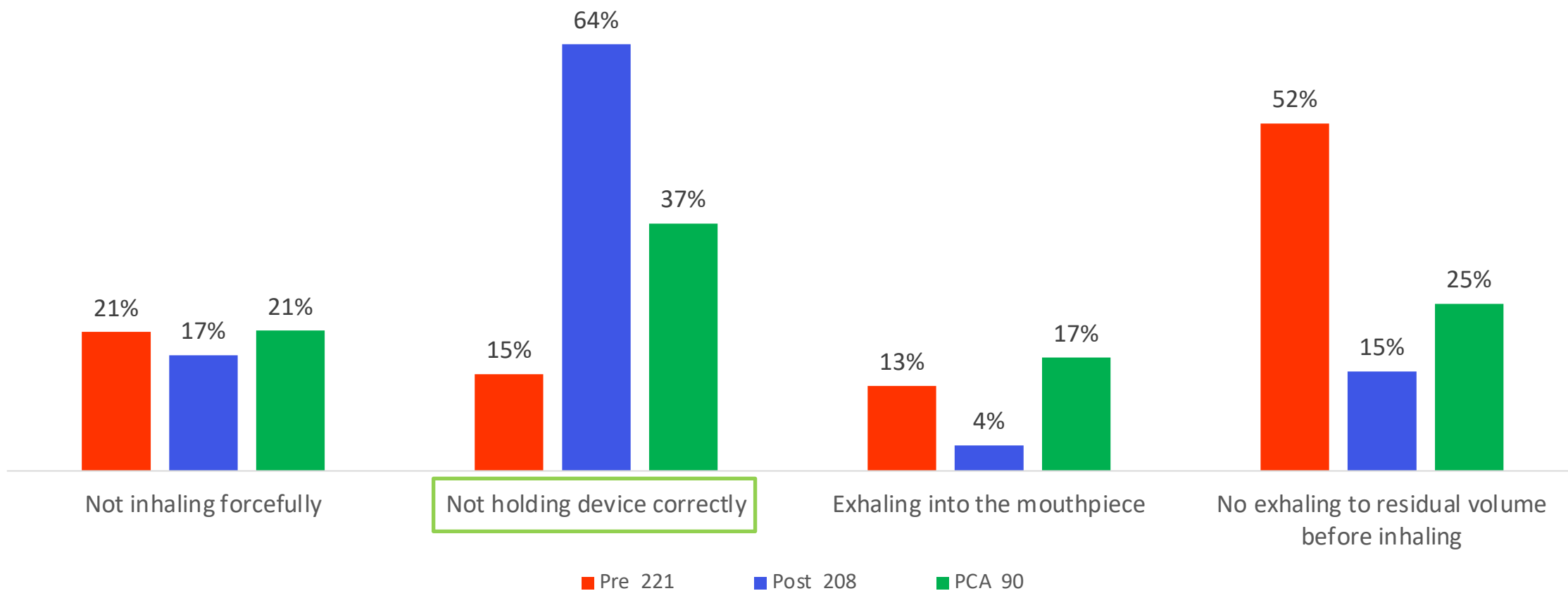
| Pre-Post Change | 327% |
| Pre-PCA Change | 147% |

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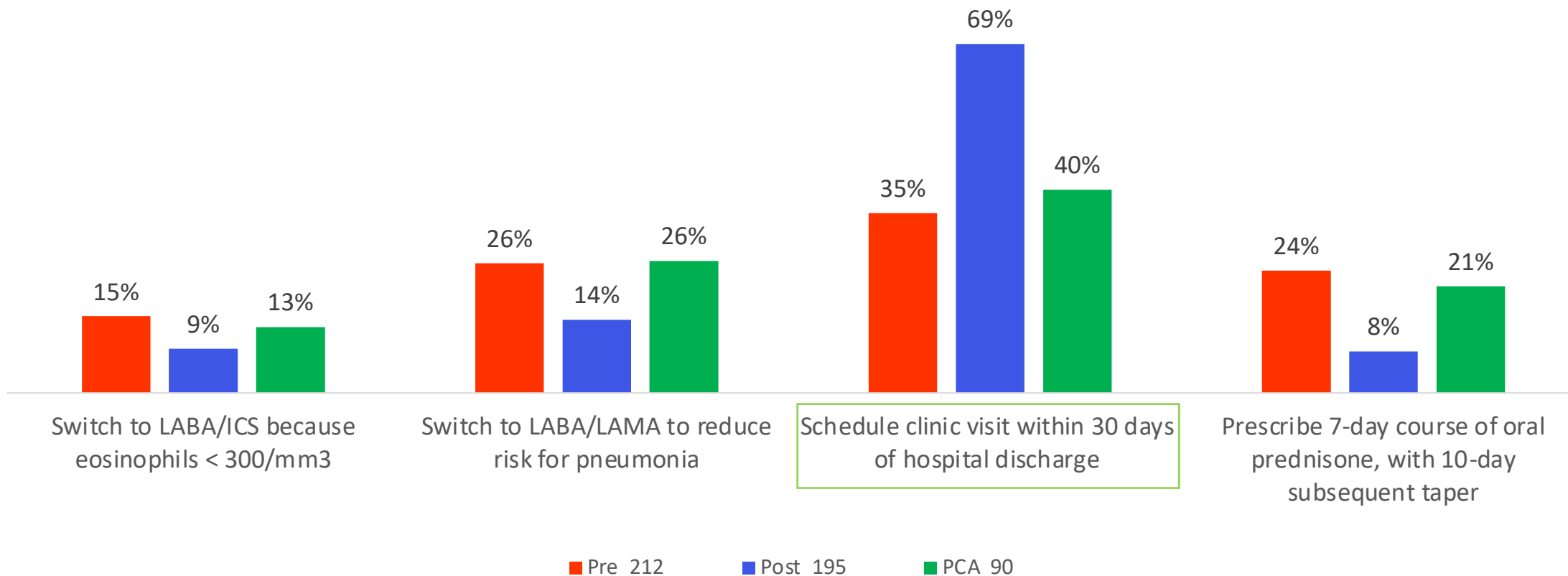# In large-scale clinical studies, triple therapy with fixed triple ICS/LABA/LAMA was associated with which of the following outcomes compared with LABA/LAMA dual therapy?

P Value: <0.05

	Similar mortality benefits over 1 year	Significantly lower incidence of pneumonia	Non-significant trend toward fewer moderate/severe exacerbations	Reduced mortality and significantly reduced rate of moderate/severe exacerbations
Pre 217	4%	7%	13%	76%
Post 202	1%	6%	3%	90%
PCA 90	6%	11%	22%	61%
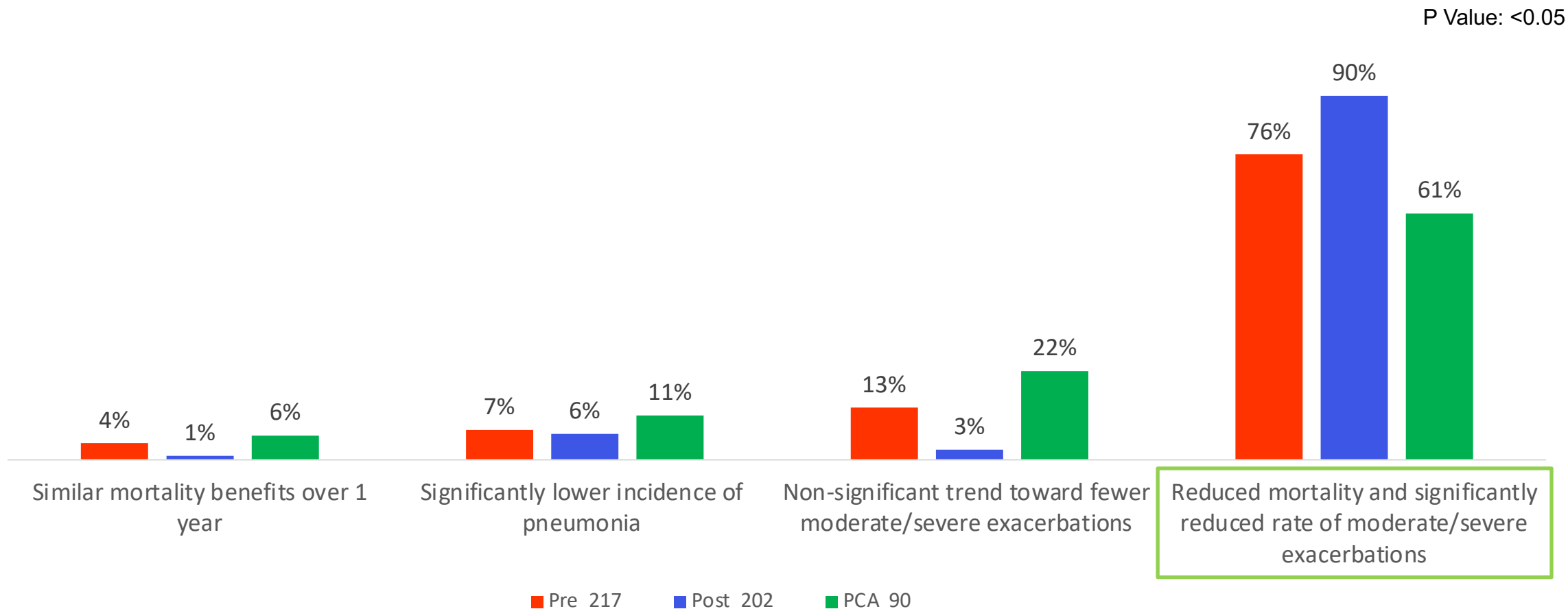
Pre-Post Change	18%
Pre-PCA Change	-20%

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Please select the specific areas of *skills, or practice behaviors*, you have improved regarding the screening, diagnosis and treatment of Chronic Obstructive Pulmonary Disease since this CME activity. (Select all that apply.)
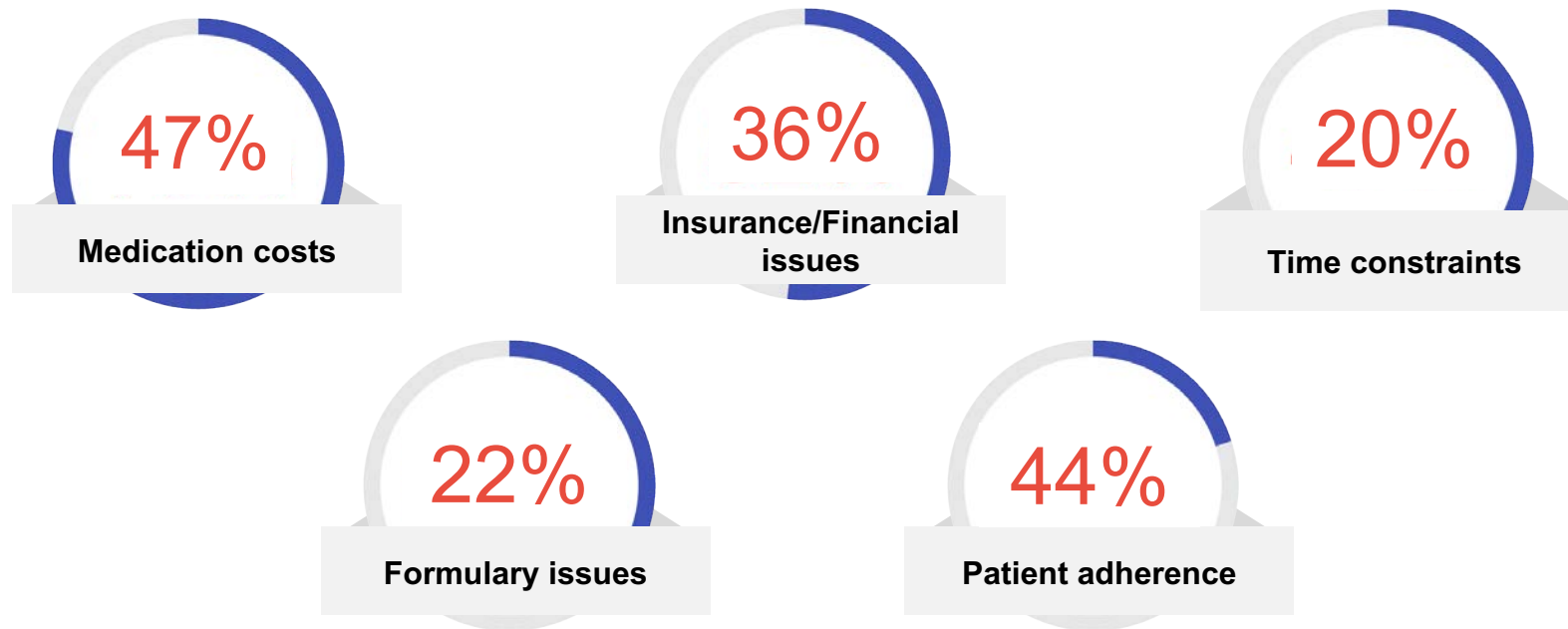N=81

51%
Pharmacotherapy

40%
Patient education

53%
Diagnostic evaluation

54%
Disease state awareness

48%
Screening protocols

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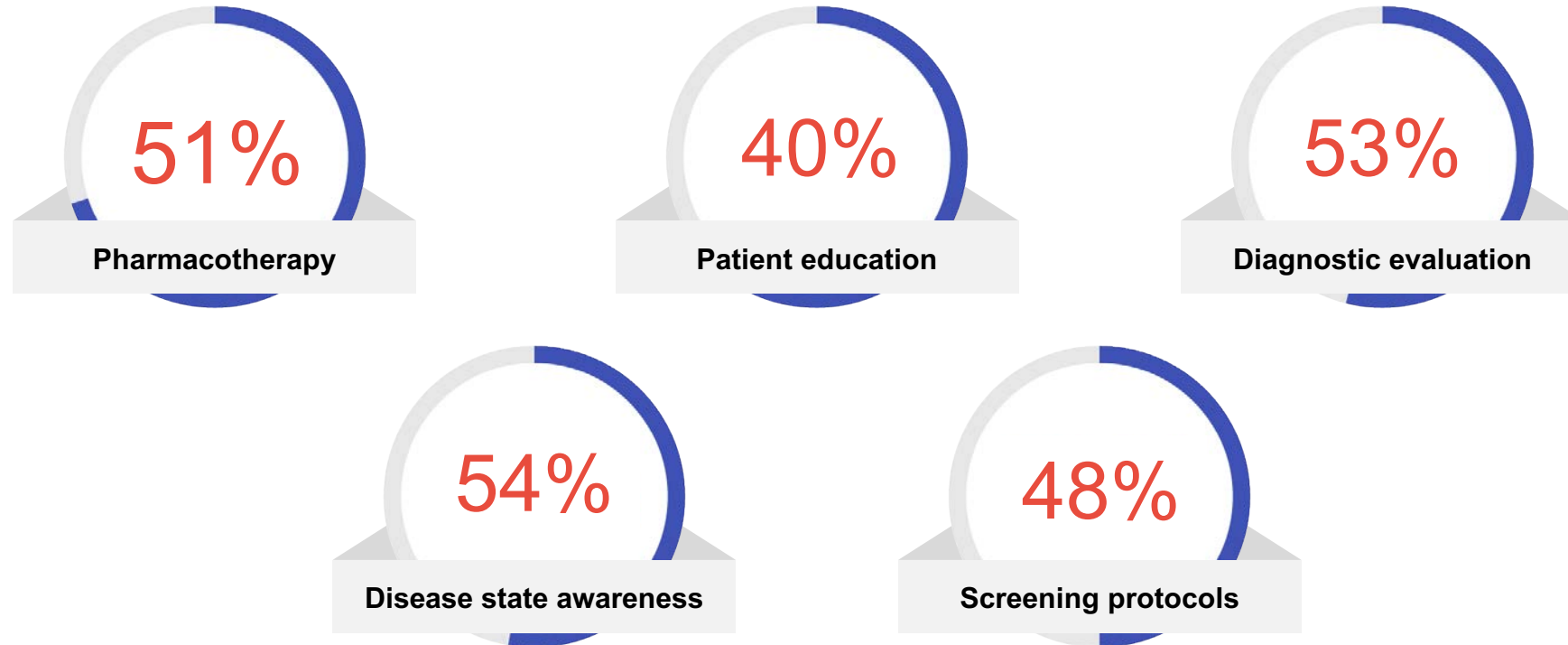
What specific *barriers* have you encountered that may have prevented you from successfully implementing screening, diagnosis and treatment of Chronic Obstructive Pulmonary Disease since this CME activity? (Select all that apply)
N=81

47%
Medication costs

36%
Insurance/Financial issues

20%
Time constraints

22%
Formulary issues

44%
Patient adherence

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Participant Educational Gains

327% improvement in the recognition of not holding the inhaler correctly as the most common technique error made by patients when using dry powder inhalers

97% increase in identifying that scheduling a clinic visit within 30 days of discharge is the most effective strategy to reduce rehospitalizations

45% improvement in recognition of the current GOLD "treatable traits" of dyspnea and exacerbations

18% increase in recognition of the reduced mortality and significantly reduced rate of moderate/severe exacerbations associated with the use of fixed triple ICS/LABA/LAMA therapy versus LABA/LAMA dual therapy

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Persistent Educational Gaps After 4 Weeks

Identification of dyspnea and exacerbations as "treatable traits" as outlined in the current GOLD therapeutic paradigm

Recalling that holding the inhaler device improperly is the most common technique error made by patients when using dry powder inhalers

Recognition of the outcomes associated with fixed triple ICS/LABA/LAMA therapy as compared to LABA/LAMA dual therapy

Recognition of the most effective strategy to reduce rehospitalizations

Key Take-home Points

Learners with some baseline confidence in the care of patients with COPD increased that confidence, and those slightly or moderately confident post-activity continued to gain confidence over the following 4 weeks, indicating integration of knowledge into practice

Despite significant initial gains in recognizing that scheduling a clinic visit within 30 days of discharge reduces hospitalization, four week results demonstrated score slippage with a nearly identical return to pre-activity scores, indicating that more education on this important preventive strategy is needed.

98% of learners indicated that they gained new knowledge as a result of the presentation, identifying disease state awareness, diagnostic evaluation and pharmacotherapy as skills that they have specifically improved

87% of participants identified as "moderate", "pretty much", or "very" confident post-presentation, but lost these gains over time, with 81% indicating "slight" or "moderate" confidence at 4 weeks, demonstrating the need for sustained exposure to education on this topic

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