### The Importance of Early and Accurate Diagnosis and Treatment of ILD and IPF

Boehringer Ingelheim Grant ID: US IME\_2020\_00001857 Final Outcomes Summary (Revised) Format [Live/Online] Date Range 6/24/20-6/24/21

#### **Respiratory Institute**



Jefferson Health.



### Program Overview

**Final Outcomes Summary** 

#### **Program Overview**

This program consisted of three live webinars and a chapterized online activity that included challenging cases, whiteboard animations, patient perspective video, interactive conversations & input. The goal of this program was to improve health care providers' knowledge, competence and performance to close gaps related to early guideline-concordant diagnosis, management, and treatment of patients with Interstitial Lung Diseases (ILD) and Idiopathic Pulmonary Fibrosis (IPF). Topics included in the program are the natural history of IPF/ILD, early and accurate guidelinebased diagnosis, differentiating IPF from other Interstitial Lung Diseases (ILD), and early initiation of treatment to improve patient outcomes.

#### Learning Objectives

- 1. Integrate new information about the natural history of IPF and other ILDs into clinical decision-making and discussions with patients about their prognosis.
- 2. Employ best practices for the early and accurate diagnosis of IPF and other ILDs.
- 3. Develop pharmacologic and nonpharmacologic treatment plans for patients with IPF that help to preserve lung function and manage symptoms.

### **Respiratory Institute**<sup>®</sup>

This collaborative program was developed and presented by National Jewish Health, with the Mount Sinai – National Jewish Health Respiratory Institute and the Jane and Leonard Korman Respiratory Institute - Jefferson Health and National Jewish Health.







### Faculty Presenters

#### **Final Outcomes Summary**



Amy Olson, MD, MSPH Associate Professor Department of Medicine Division of Pulmonary, Critical Care and Sleep Medicine National Jewish Health Denver, CO



Jesse Roman, MD Professor of Medicine CEO, Jane & Leonard Korman Respiratory Institute – Jefferson Health and National Jewish Health

Ludwig Kind Professor of Medicine and Pharmacology & Experimental Therapeutics Enterprise Division Chief, Pulmonary, Allergy and Critical Care Medicine Jefferson Health Philadelphia, PA



#### Maria Padilla, MD

Director, Advanced Lung Disease/Interstitial Lung Disease Program Professor of Medicine Pulmonary, Critical Care and Sleep Medicine Mount Sinai-National Jewish Health Respiratory Institute New York City, NY



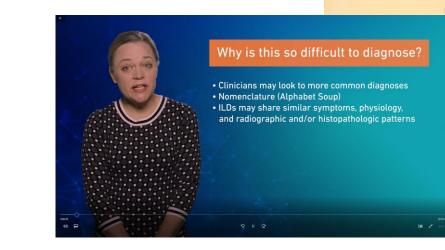


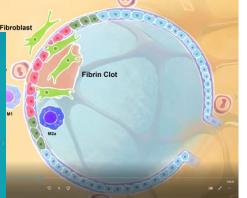
#### Final Outcomes Summary – Online Program



#### Release Date: 6/24/2020 Expiration Date: 6/24/2021

Link to Education: <u>https://learning.freecme.com/a/34986PAsbiAk</u>









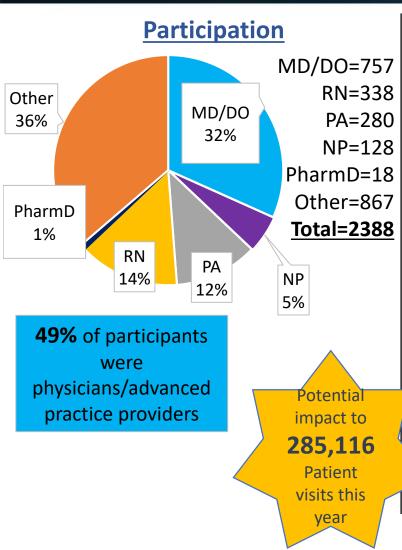
### **Learner Definitions**

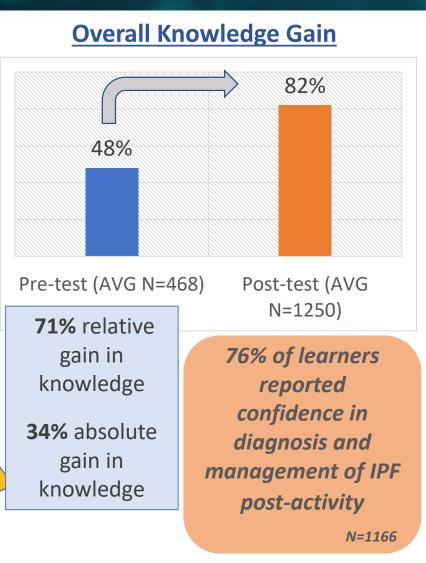
#### Final Outcomes Summary – Online Program

Platform	Participant Definition	Learner Definition	Completer/ Test-Taker Definition	Participant Guarantees	Participant Actuals	Learner Guarantees	Learner Actuals	Completer Guarantees	Completer Actuals
freeCME – Proposed Distribution Partner	Unique front matter page views	Clicked past the front matter and started the activity	Completer letters generated	5,000	10,361	2,000	1,284	1,000	942
myCME Enlisted to distribute as well when numbers weren't on track	N/A	Number of times the activity was visited and at least one page was viewed	Number of learners who took and passed a post- assessment	N/A	N/A	N/A	1,104	N/A	236
TOTAL					10,361 Participants		2,388 Learners		1,178 Completers reathing Science is Life:



#### Final Outcomes Summary – Online Program





#### **Practice Change**

Top three practice changes learners intend to make include:

- Improved communication and support for patients
- Implementation of overall knowledge of ILD and IPF
- Early evaluations and assessment strategies

86%

Learners intend

to make changes

to practice as a

result of the

activity

N=1166

78% of learners indicated that during the pandemic, they prefer online activities for medical education.

N=1168

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#### Final Outcomes Summary – Online Program

#### **Evaluation Respondents**

**1,166** Evaluation Respondents

Who see **5,483** IPF Patients Weekly

Which translates to **285,116** Potential patient Visits Annually **Educational Impact** 

**79%** of learners reported that they were very confident or confident in their ability to make an early and accurate diagnosis of ILD and IPF after the educational activity.

**77%** of learners reported that they were very confident or confident in their ability to discuss prognosis with IPF and ILD patients after the educational activity.

**74%** of learners reported that they were very confident or confident in their ability to develop treatment plans to preserve lung function and manage symptoms after the educational activity.

**75%** of learners reported that they were very confident or confident in their ability to address using a patient-centered approach to improve adherence after the educational activity.

#### **Practice Change**

#### 86%

Reported they intended to make changes to their practice as a result of the educational activity [N=1166]

#### **67%**

Indicated the activity addressed strategies for overcoming barriers to patient care [N=1166]

"This was one of the best presentations I have listened to." - Online Learner

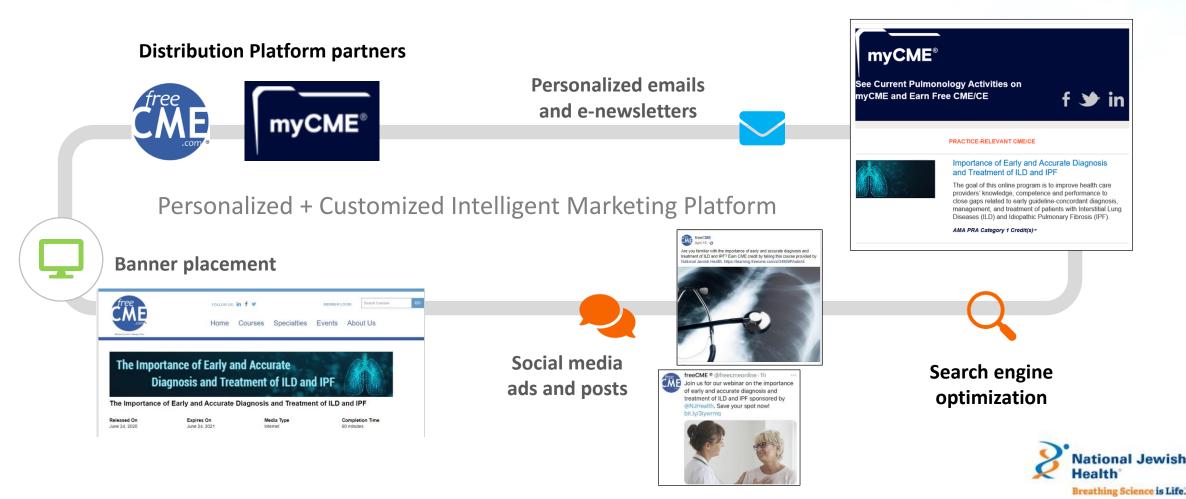
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[N=1166]



#### Final Outcomes Summary – Live + Online Program

#### Marketing Strategies – Distribution Partners Marketing for Live and Enduring





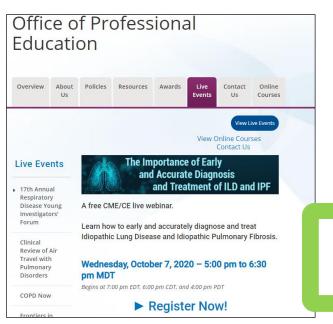
#### Final Outcomes Summary – Live + Online Program

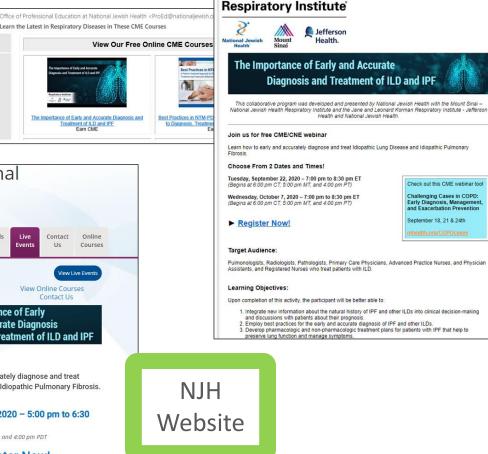
#### Marketing Strategies – NJH Marketing for Live and Enduring

ment of ILD and IPF Earn CME



Targeted Emails to NJH Database & AMA list





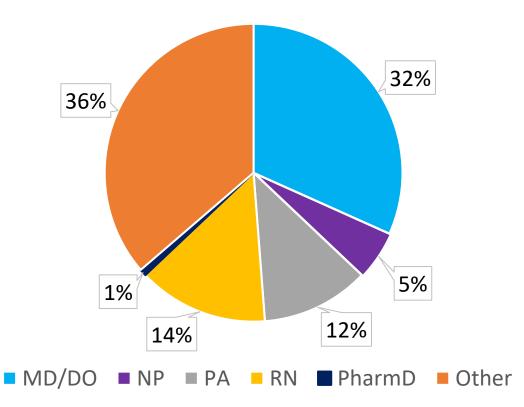


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### Level 1 Outcomes: Participation (Degree)

Final Outcomes Summary – Online Program



**49%** of participants were physicians and advanced practice providers

Degree	Total Learners	
MD/DO	757	
RN	338	
PA	280	
NP	128	
PharmD	18	
Other	867	
Total	2388	





Pediatrics

Other

### Level 1 Outcomes: Participation (Specialty)

#### Final Outcomes Summary – Online Program

Total

Learners

183

Degree

Pulmonary Medicine 8% 7% Radiology Family/General Practice 6% Primary Care 4% Cardiology 3% Emergency 58% 3% 3% Surgery 3% Acute Care 2% Obstetrics & Gyn 2% 1% Allergy

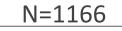
**Pulmonary Medicine** Radiology 175 Family/General Practice 154 **Primary Care** 87 82 Surgery Cardiology 74 70 Acute Care Emergency 68 **Pediatrics** 50 **Obstetrics & Gyn** 41 Allergy 22 Other 1382 2388 Total



### Level 4 Outcomes: Competence

Final Outcomes Summary – Online Program

#### Learners reported their confidence on the learning objectives (Very confident – somewhat confident)

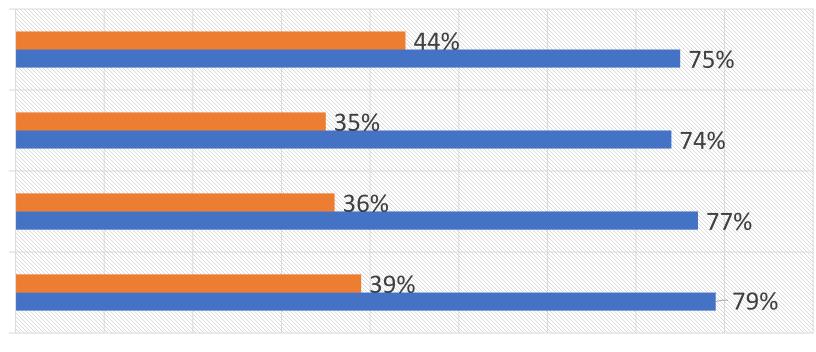


Using a patient-centered approach to improve adherence

Developing treatment plans to preserve lung function and manage symptoms

Discussing prognosis with IPF and ILD patients

Making an early and accurate diagnosis of ILD and IPF





### Level 2 Outcomes: Satisfaction

#### Final Outcomes Summary – Online Program

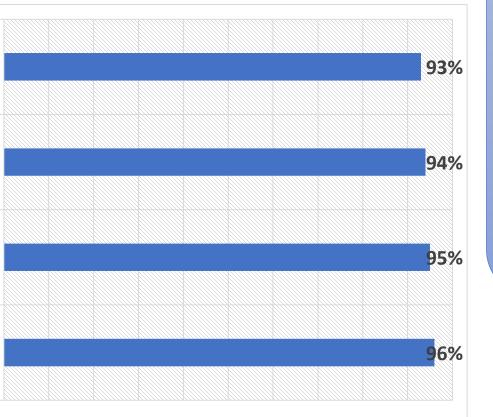
# Learners reported high levels of satisfaction with the activity's practical applications

Improving your ability to treat or manage your patients

Addressing topics that were useful for daily practice

Reinforcing and/or improving your current skills

Meeting your educational needs



Learners reported high levels of satisfaction related to the ability of the activity to impact practical applications

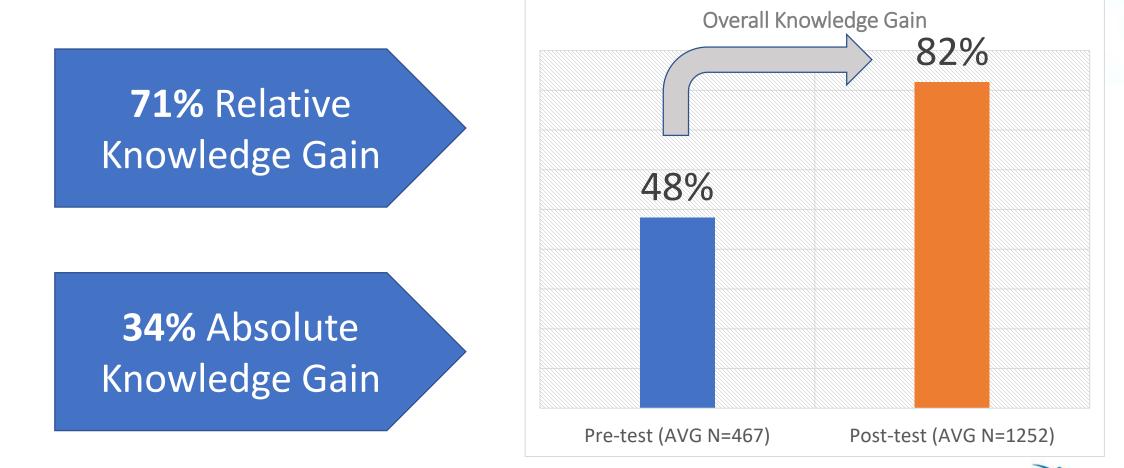


Excellent to Good (N=1166)



### Level 3 Outcomes: Overall Knowledge

#### Final Outcomes Summary – Online Program



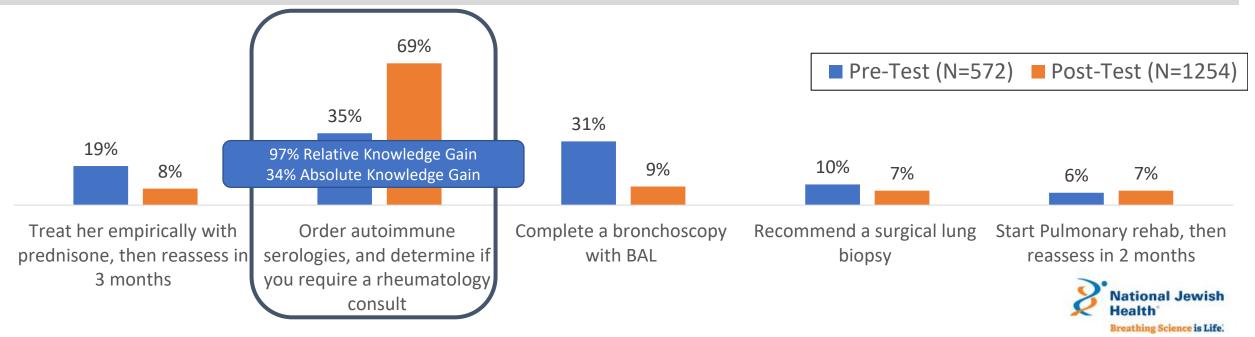




### Level 3&4 Outcomes: Knowledge & Competence (Question 1) Final Outcomes Summary – Online Program

**Learning Objective:** Develop pharmacologic and non-pharmacologic treatment plans for patients with IPF that help to preserve lung function and manage symptoms.

**Question 1:** A 58 year-old woman complains of gradually increasing dyspnea and a nagging cough for 7 months. She has exertional hypoxemia and pulmonary function tests show a restrictive pattern and low DLCO. After a clinical evaluation, she has no identifiable causes of ILD. A high-resolution chest CT scan shows "probable UIP pattern." There are no contraindications for bronchoscopy or a surgical lung biopsy. At this point, you would:

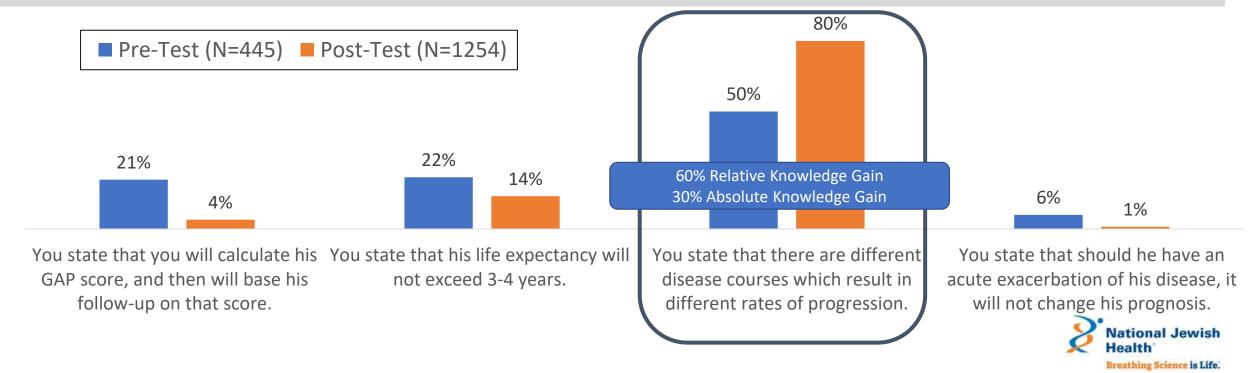




### Level 3&4 Outcomes: Knowledge & Competence (Question 2) Final Outcomes Summary – Online Program

**Learning Objective:** Integrate new information about the natural history of IPF and other ILDs into clinical decision-making and discussions with patients

**Question 2:** A 67 year-old man recently diagnosed with IPF is asking you about his prognosis. He reports that after searching online, he saw that at 5 years, IPF patients have only a 30% chance of survival. Which of the following would be an appropriate response to his comment?

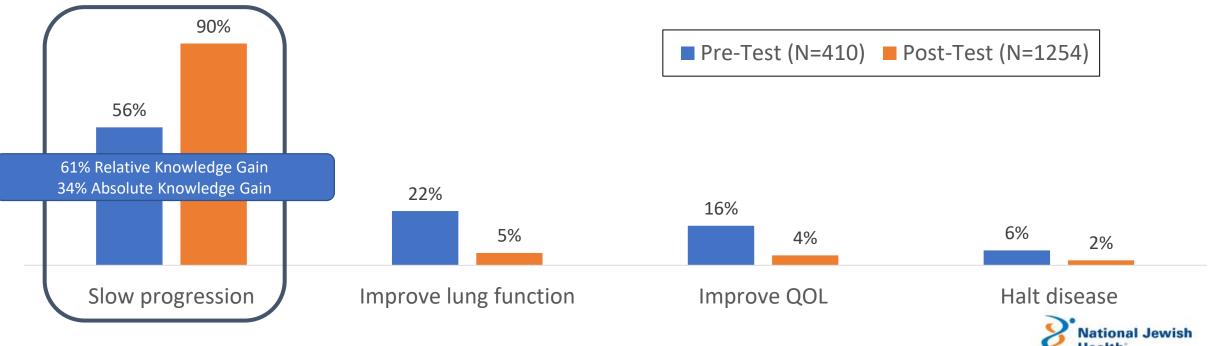




### Level 3&4 Outcomes: Knowledge & Competence (Question 3) Final Outcomes Summary – Online Program

**Learning Objective:** Develop pharmacologic and non-pharmacologic treatment plans for patients with IPF that help to preserve lung function and manage symptoms.

Question 3: Antifibrotics have been shown to:



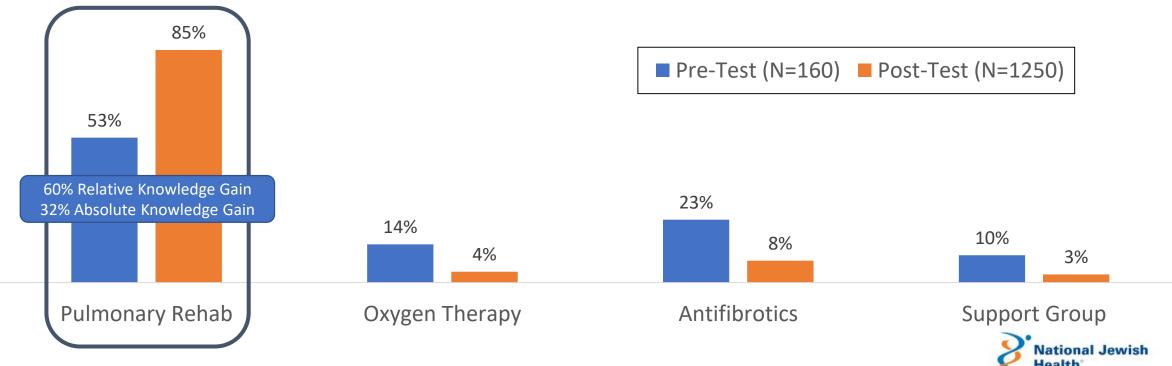
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### Level 3&4 Outcomes: Knowledge & Competence (Question 4) Final Outcomes Summary – Online Program

**Learning Objective:** Employ best practices for the early and accurate diagnosis of IPF and other ILDs

**Question 4:** For patients like Scott, which of the following interventions would be the best option to help promote his active lifestyle, decrease his fatigue and improve his overall quality of life?



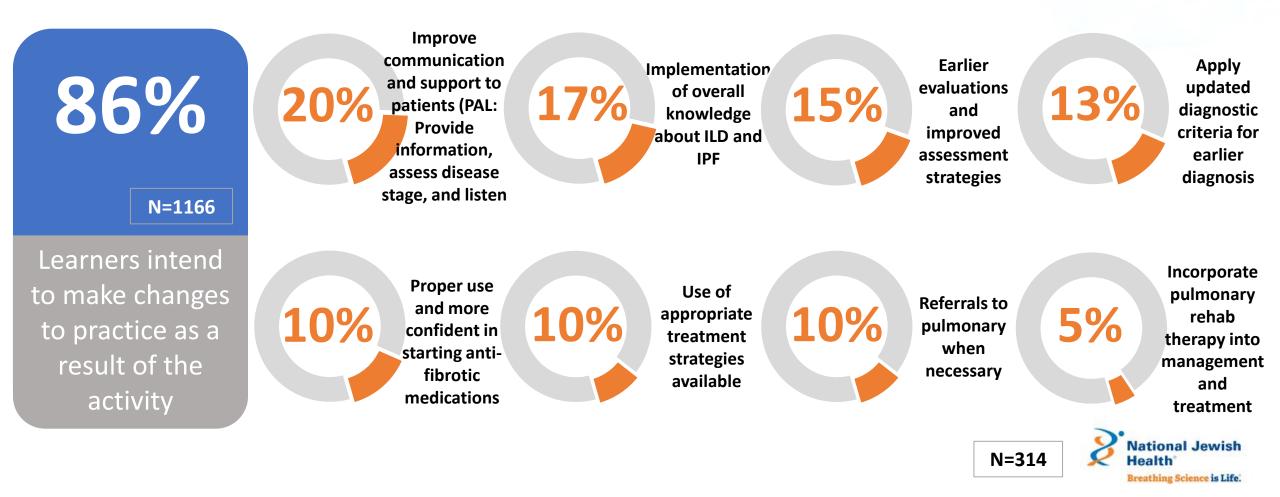
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### Level 4 Outcomes: Competence

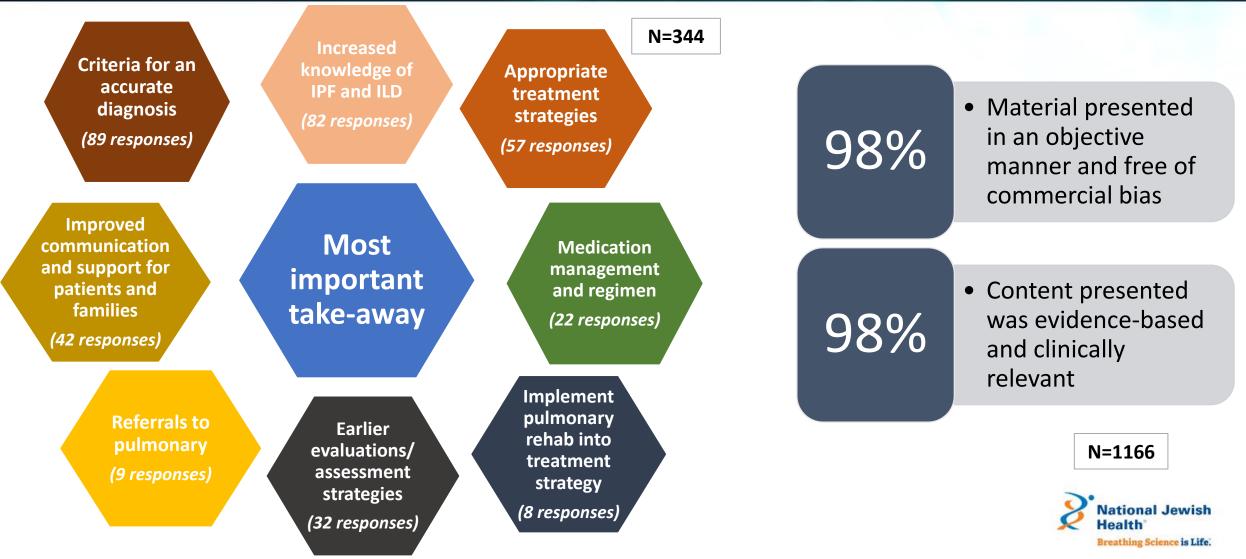
Final Outcomes Summary – Online Program

An analysis of open-ended comments demonstrates the following changes learners intend to make:





#### Final Outcomes Summary – Online Program





#### Final Outcomes Summary – Online Program

#### What do you think is the primary reason why making a diagnosis of IPF is so difficult?

Awareness	Barriers to care		
Biopsy	Cough and shortness of breath are common symptoms of other diseases		
Education	It mimics so many other etiologies		
Lack of education/knowledge	Lack of resources		
Non-specific symptoms	Not straight forward presentation		
Ruling out secondary causes	Other interstitial lung diseases in the differential		
Poor patient history	UIP vs NSIP not being 100% diagnostic		
Various pulmonary diseases can look and present similarly	Multiple etiologies		





#### Final Outcomes Summary – Online Program

### **Strategies for Overcoming Barriers**

- Access to care
- Access to patient learning material
- Allows me to be more proactive with pulmonary and clinical trials
- Cost, side effects and treatment of side effects
- Diagnosis and treatment
- Early diagnosis; implementing treatment; better counseling of patients
- Education and work as a team
- Patient concerns
- Patient resistance/noncompliance

67%

N=1166

Learners indicated the activity addressed strategies for overcoming barriers to optimal patient care





Final Outcomes Summary – Online Program

What topics would you like more information about in future educational activities?

Complete PFTs	Neurology
COPD	Neuroradiology
COVID-19	Occupational lung diseases, asbestosis and silicosis and HP
DM2	Occupational asthma and BOOP
Hypertrophic Cardiomyopathy	Pathophysiology ILD
ILD CT	Pulmonary HTN
ILD diagnostic work	Pulmonary Rehab and COVID
Lung cancer	Radiology
MRI and CT scan	Treatment of NSIP

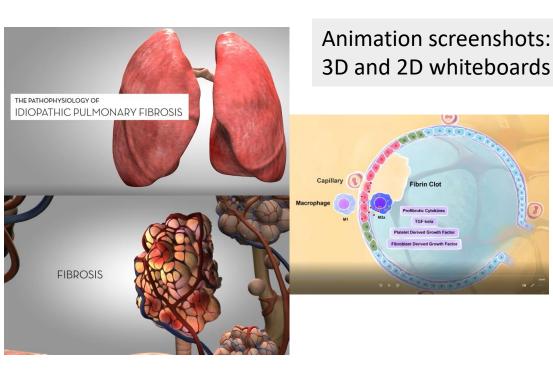


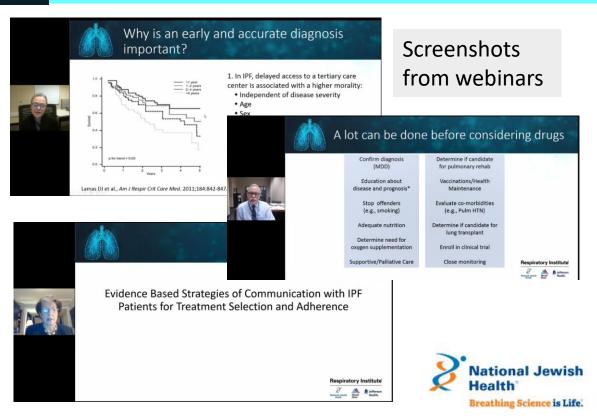


Final Outcomes Summary – Live Broadcasts

### The Importance of Early and Accurate Diagnosis and Treatment of ILD and IPF

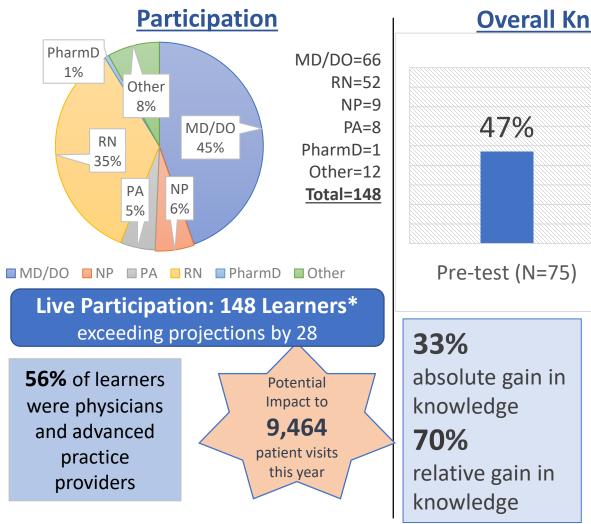
Three live webinars hosted from August – September 2020.



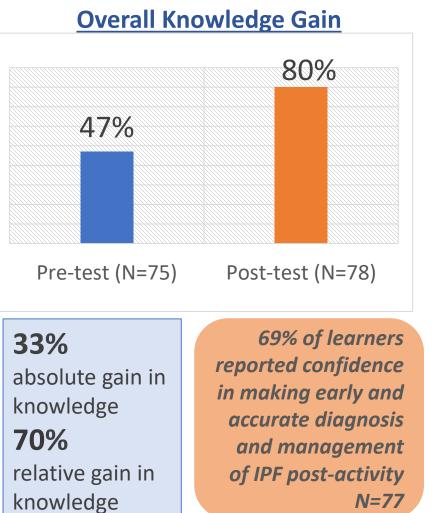




Final Outcomes Summary – Live Broadcasts



\*Learners defined as those who stayed on the webinar for more than 15 minutes



#### **Top 3 Practice Changes**

**68%** of follow up survey respondents (N=22) reported having already made changes to practice within 45 days of the activity:

- Incorporated different diagnostic strategies into patient evaluation (33%)
- Changed screening/prevention practice (27%)
- Used alternative communication methodologies with patients and families (20%)



Learners intend to make changes to practice as a result of the activity 56% of learners indicated that during the pandemic, they prefer the live webinar format for medical education. N=77

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#### Final Outcomes Summary – Live Broadcasts

#### Participants

#### **Educational Impact**

**148** Total Learners

Who see **182** IPF Patients Weekly

Which translates to **9,464** Potential patient Visits Annually **71%** of learners reported that post-activity they were very confident or confident in making an early and accurate diagnosis of ILD and IPF; discussing prognosis with IPF and ILD patients; developing treatment plans to preserve lung function and manage symptoms; and using a patient-centered approach to improve adherence. [N=77]

**83%** of learners indicated they intend to make changes to their practice based on the education, in the areas of improving patient care, applying proper diagnostic approaches to a patient with ILD, and being more aware of treatment needed. [N=77]

**69%** of learners indicated the education addressed strategies for overcoming barriers to optimal patient care, including comprehensive discussions with patients; adherence to medication therapy; better communication with patients; shared decision making; and establishing a relationship with your patient so they feel comfortable discussing their concerns. [N=77]

#### Practice Change

**68%** of follow-up survey respondents reported they had made changes to their practice as a result of the educational activity [N=22]

**23%** of followup survey respondents reported they had not yet made changes, but were committed to making practice changes [N=22]

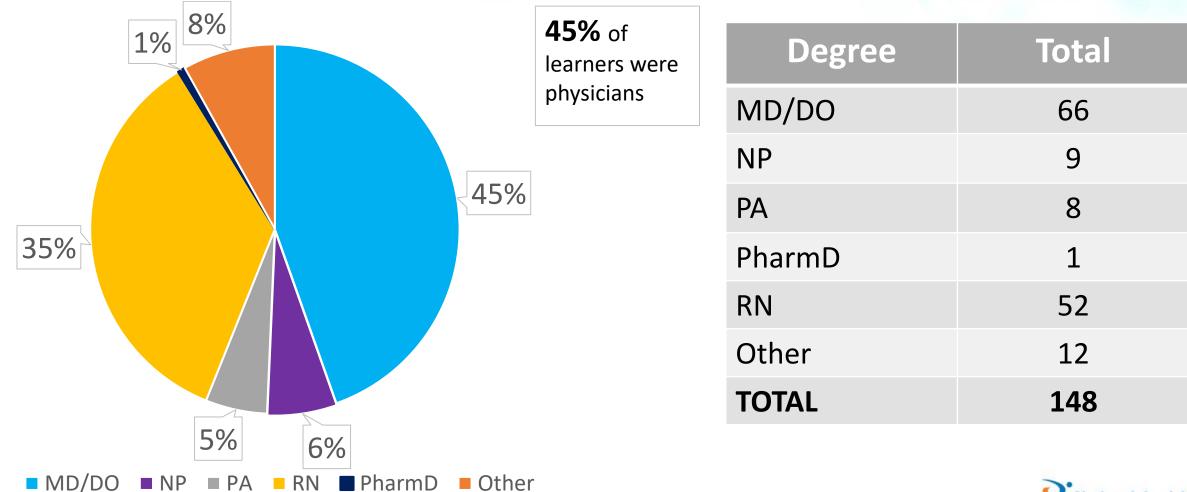
**75%** of follow up survey respondents reported their patients have benefited from the information they learned in the activity [N=20]





### Level 1 Outcomes: Participation (Degree)

Final Outcomes Summary – Live Broadcasts

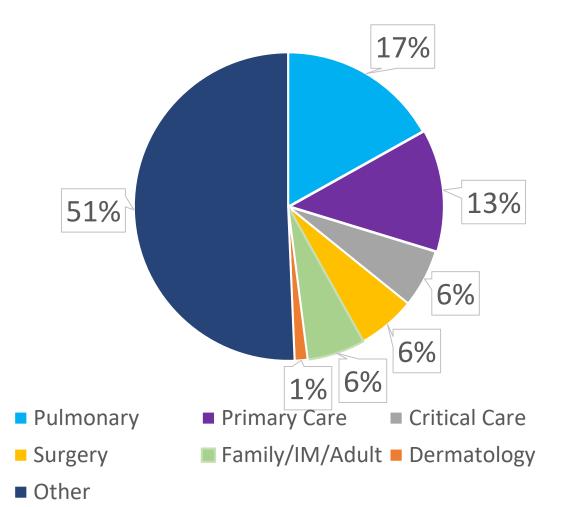


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### Level 1 Outcomes: Participation (Specialty)

Final Outcomes Summary – Live Broadcasts



Specialty	Total
Pulmonary Medicine	25
Primary Care	19
Critical Care	9
Surgery	9
Family/IM/Adult	9
Dermatology	2
Other	75
TOTAL	148
	<b>National Jewisl</b> Health

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### Level 4 Outcomes: Competence

Final Outcomes Summary – Live Broadcasts

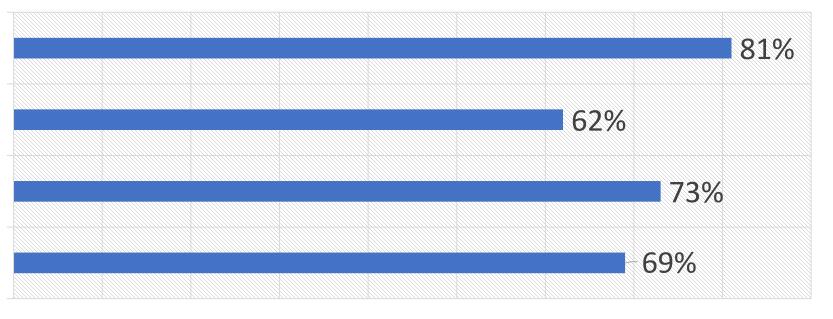
#### Learners reported their confidence as it relates to the learning objectives post-activity (Very confident – somewhat confident)

Using a patient-centered approach to improve adherence

Developing treatment plans to preserve lung function and manage symptoms

Discussing prognosis with IPF and ILD patients

Making an early and accurate diagnosis of ILD and IPF





N=77



### Level 2 Outcomes: Satisfaction

#### Final Outcomes Summary – Live Broadcasts

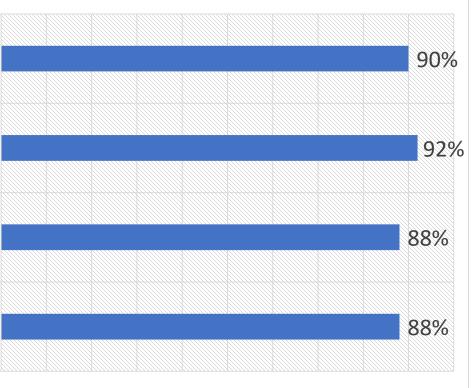
#### Analysis of participants' responses related to educational needs How well did the activity...

Improve your ability to treat or manage your patients?

Address topics that were useful for daily practice?

Reinforce and/or improve your current skills?

Meet your educational needs?



Learners reported high levels of satisfaction related to the ability of the activity to impact practical applications

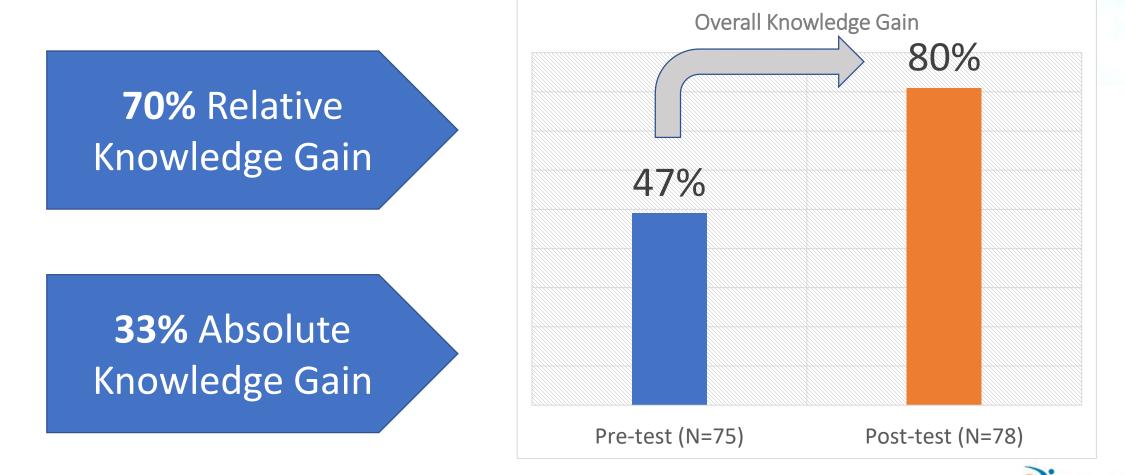


Excellent to Good (N=77)



### Level 3 Outcomes: Overall Knowledge

Final Outcomes Summary – Live Broadcasts



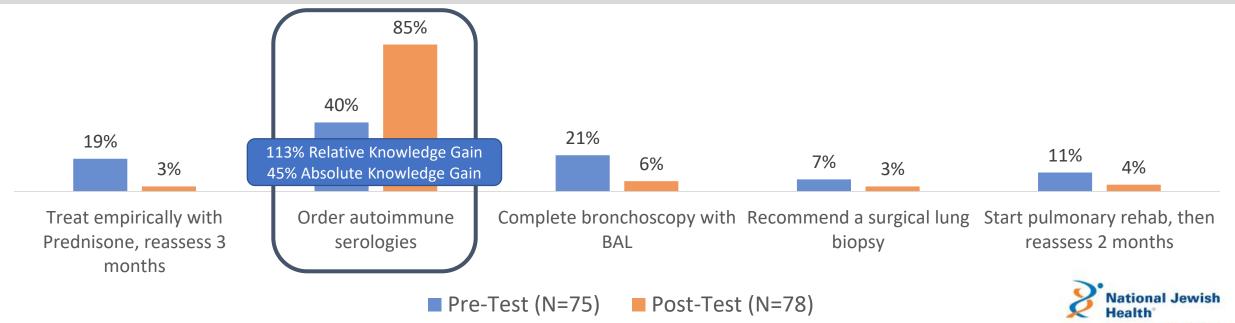




### Level 3&4 Outcomes: Knowledge & Competence (Question 1) Final Outcomes Summary – Live Broadcasts

**Learning Objective:** Develop pharmacologic and non-pharmacologic treatment plans for patients with IPF that help to preserve lung function and manage symptoms.

**Question 1:** A 58 year-old woman complains of gradually increasing dyspnea and a nagging cough for 7 months. She has exertional hypoxemia and pulmonary function tests show a restrictive pattern and low DLCO. After a clinical evaluation, she has no identifiable causes of ILD. A high-resolution chest CT scan shows "probable UIP pattern." There are no contraindications for bronchoscopy or a surgical lung biopsy. At this point, you would:



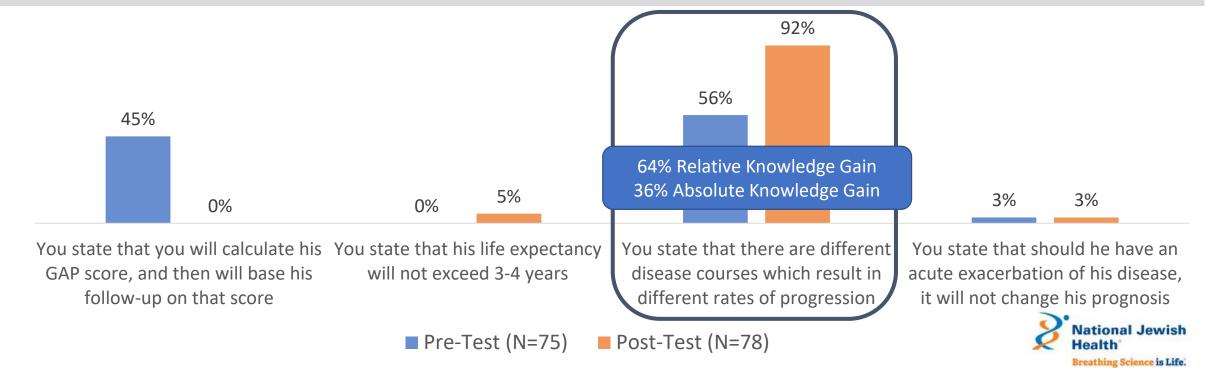
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### Level 3&4 Outcomes: Knowledge & Competence (Question 2) Final Outcomes Summary – Live Broadcasts

**Learning Objective:** Integrate new information about the natural history of IPF and other ILDs into clinical decision-making and discussions with patients

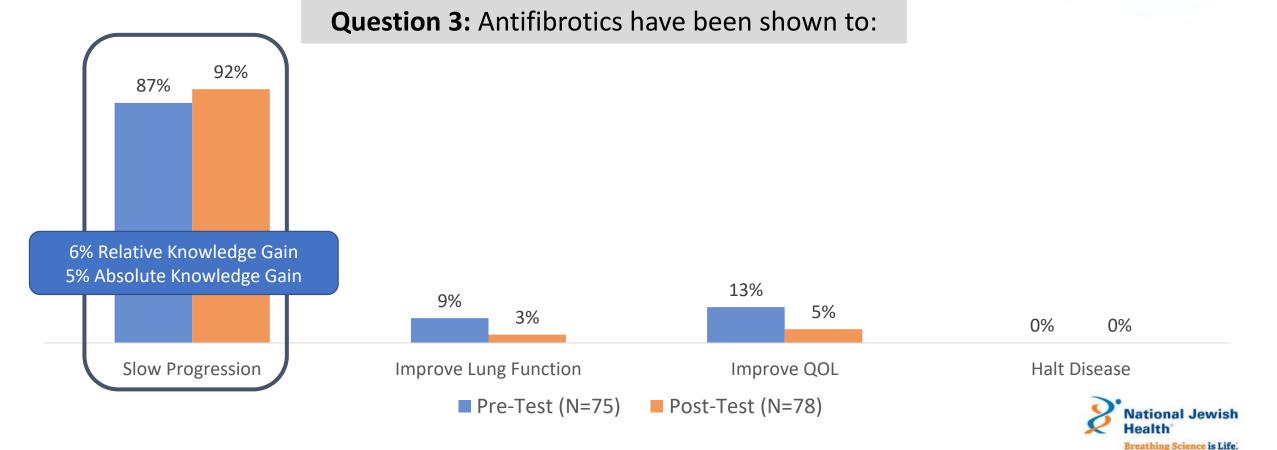
**Question 2:** A 67 year-old man recently diagnosed with IPF is asking you about his prognosis. He reports that after searching online, he saw that at 5 years, IPF patients have only a 30% chance of survival. Which of the following would be an appropriate response to his comment?





### Level 3&4 Outcomes: Knowledge & Competence (Question 3) Final Outcomes Summary – Live Broadcasts

**Learning Objective:** Develop pharmacologic and non-pharmacologic treatment plans for patients with IPF that help to preserve lung function and manage symptoms.

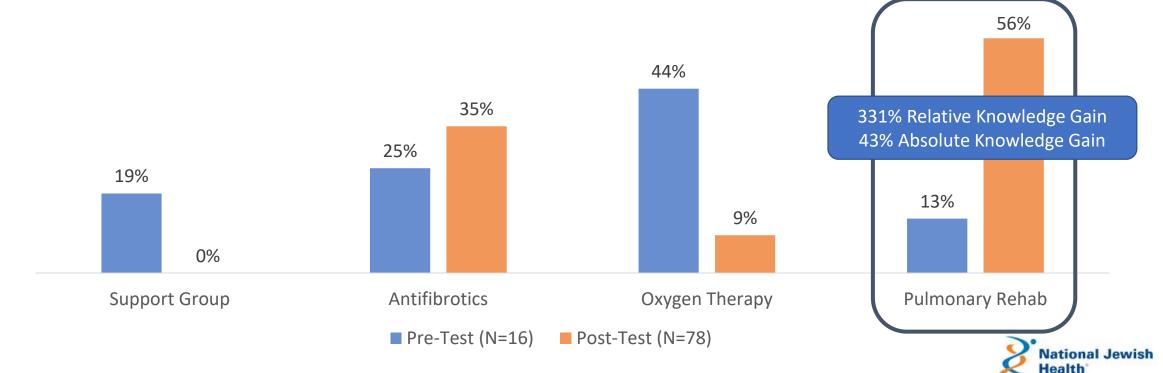




### Level 3&4 Outcomes: Knowledge & Competence (Question 4) Final Outcomes Summary – Live Broadcasts

**Learning Objective:** *Employ best practices for the early and accurate diagnosis of IPF and other ILDs* 

**Question 4:** For patients like Scott, which of the following interventions would be the best option to help promote his active lifestyle, decrease his fatigue and improve his overall quality of life?



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### Level 4 Outcomes: Competence

Final Outcomes Summary – Live Broadcasts

An analysis of open-ended comments demonstrates the following changes learners intend to make:

Proper diagnostic approach to a patient with ILD [N=12]

## Patient education about diagnosis and options for treatment [N=10]

Early antifibrotic therapy [N=4] Early diagnosis and referral

[N=3]



Learners intend to make changes in practice as a result of the activity

83%

N=77



### Self Reported Performance: 45 Day Follow

#### Final Outcomes Summary – Live Broadcasts

**68**% of respondents indicated that they have incorporated changes into their practice as a result of this activity. [N=22]

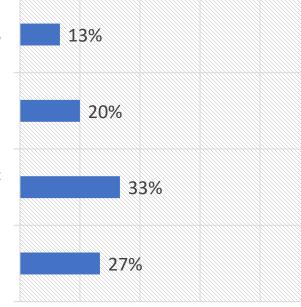
What changes have you incorporated into practice as a result of this activity?

Modified treatment plans

Used alternative communication methodologies with patients and families

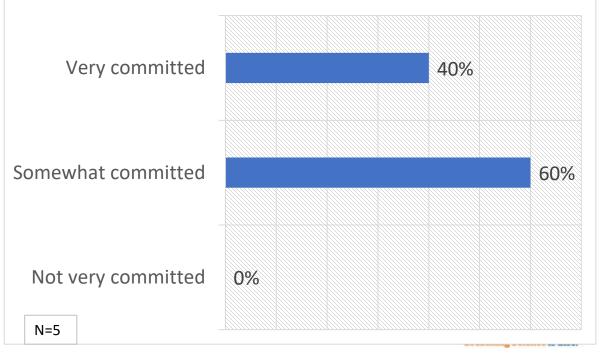
Incorporated different diagnostic strategies into patient evaluation

Changed screening/prevention practices



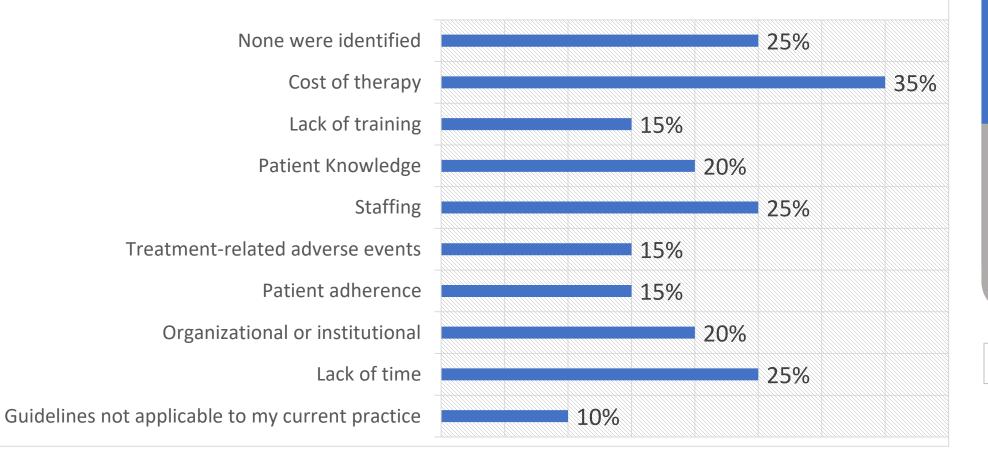
23% indicated they haven't made changes yet but are committed to making changes. [N=22]

### What is your level of commitment to making those changes?



### Self Reported Performance: 45 Day Follow-Up Survey Final Outcomes Summary – Live Broadcasts

What barriers have you experienced since this activity that may impact patient outcomes or optimal patient care?



# 60%

N=20

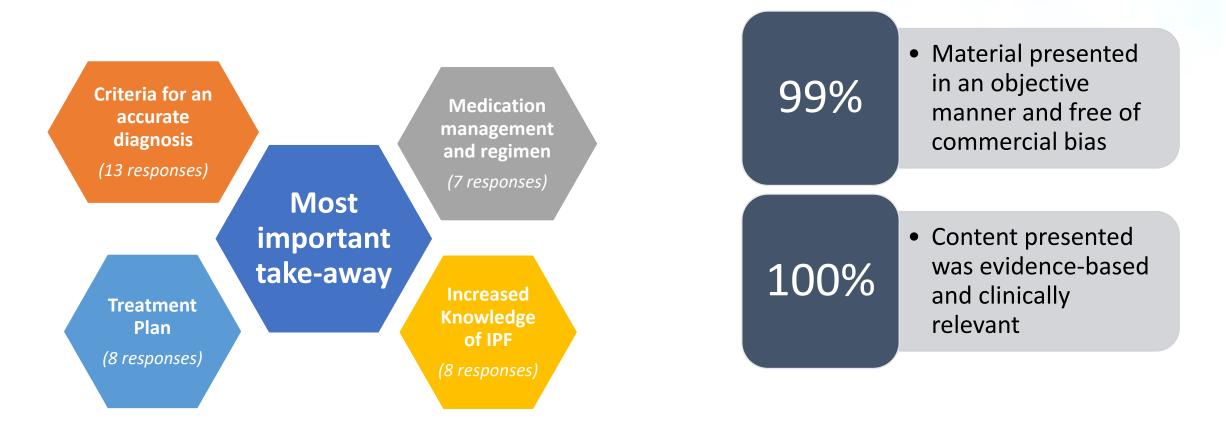
The activity provided information, education, tools, or resources to address barriers.

N=12

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#### Final Outcomes Summary – Live Broadcasts







#### Final Outcomes Summary – Live Broadcasts

What do you think is the primary	reason why making a	diagnosis of IPF is so difficult?
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Non-specific symptoms	Currently, many patients are avoiding health care due to fear of COVID	
Late referrals	Lack of understanding	
No access to multi-disciplinary teams	Primary providers miss the symptoms and don't refer to specialists early enough	
So similar to other lung diseases	Awareness of the early imaging finding of IPF	
Failure to distinguish from other ILDs	Emphysema, Asthma, Bronchitis	
Older age patients are not referred early enough	Nonspecific symptoms like a cough	
Physicians often do not perform complete tests to determine the correct diagnosis for the patient's symptoms.	Many clinicians may not have current knowledge to recognize IPF or even put it in their differential diagnosis.	





#### Final Outcomes Summary – Live Broadcasts

### **Strategies for Overcoming Barriers**

- Understanding the disease process
- Need for introduction of antifibrotics for improvement of long term QOL
- Supportive care in ILD
- Comprehensive discussions with patients
- Patient medication non-adherence and treatment of medication side effects.
- Improved patient/caregiver understanding of the progression of the disease process and treatment plans.
- Patients that discontinue treatment or who feel hopeless

69%

N=77

Learners indicated the activity addressed strategies for overcoming barriers to optimal patient care





#### Final Outcomes Summary – Live Broadcasts

What topics would you	a like more informatio	on about in future	educational activities?
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Immunosuppressive therapy for ILD	Severe Asthma
Hematological illnesses	Dementia in the elderly
Dementia	Autoimmune ILD
COPD, Asthma	Congestive heart failure
Orthopedic	Emphysema, Asthma, Bronchitis
Cardiomyopathy	More information on treatment of COPD which is increasingly a problem
Diabetes Mellitus and new medications for treatment including insulin and non-insulin therapies.	Strokes evaluation and new approach
Sarcoidosis	Case management





### **Accreditation Information**

NJH is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The NJH Office of Professional Education produced and accredited this program and adhered to the updated ACCME guidelines.

NJH designates the live activity for a maximum of 1.0 AMA PRA Category 1 Credits<sup>™</sup>.

Provider approved by the California Board of Registered Nursing, Provider Number 12724 for 1.0 nursing contact hours.

NJH designates the enduring activity for a maximum of 1.0 AMA PRA Category 1 Credits™.







# Thank you for your support of this educational program!

