

Attitudes of CF Center Pulmonologists Regarding CF Guidelines

C Williamson¹; T Glauser¹; H Nevins¹; L Debonnett²; J Zhang²; A Swensen²; K Rieker³

¹CE Outcomes, LLC; Birmingham, AL

²Novartis Pharmaceuticals

³Johns Hopkins Adherence Research Center

Background

- In 2007, guidelines were published by Flume et al. regarding specific therapeutic recommendations for treating patients, 6 years or older, with cystic fibrosis (CF)¹
- Studies have been conducted on barriers to guideline adherence in respiratory conditions such as asthma, COPD, and CF infection control,^{2,3,4,5} but to date, there is no data on the barriers to adherence of US-based consensus guidelines for the pulmonary management of CF
- A framework has been developed by Cabana and colleagues to explain and identify key determinants of physician adherence to guideline recommendations⁶
- The purpose of this study is to better understand the attitudes and perceptions of pulmonologists practicing at CF center facilities (director and non-director physicians) regarding these recommendations, specifically regarding the use of dornase alfa, inhaled tobramycin, hypertonic saline, and azithromycin

Methods

- Using the Cabana model, a survey was developed to assess current attitudes regarding the 2007 CF guidelines
- Framework of the survey was designed to assess how knowledge level and attitudes toward a given set of guidelines impact guideline adherence
- The survey was also informed by a comprehensive literature review and focus groups to identify potential barriers to CF guideline adherence
- This study was approved by IRB. The survey was distributed to directors of CF centers to be disseminated to their staff in April and May of 2010 through a partnership with the Cystic Fibrosis Foundation
- The sample was drawn from 115 unique CF centers:
 - Exclusion criteria: Authors or members of the 2007 guideline advisory committee, physicians practicing in the VA or other federal institutions and those who partially completed the survey were excluded from the analysis

References

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Figure 1. Framework of Study

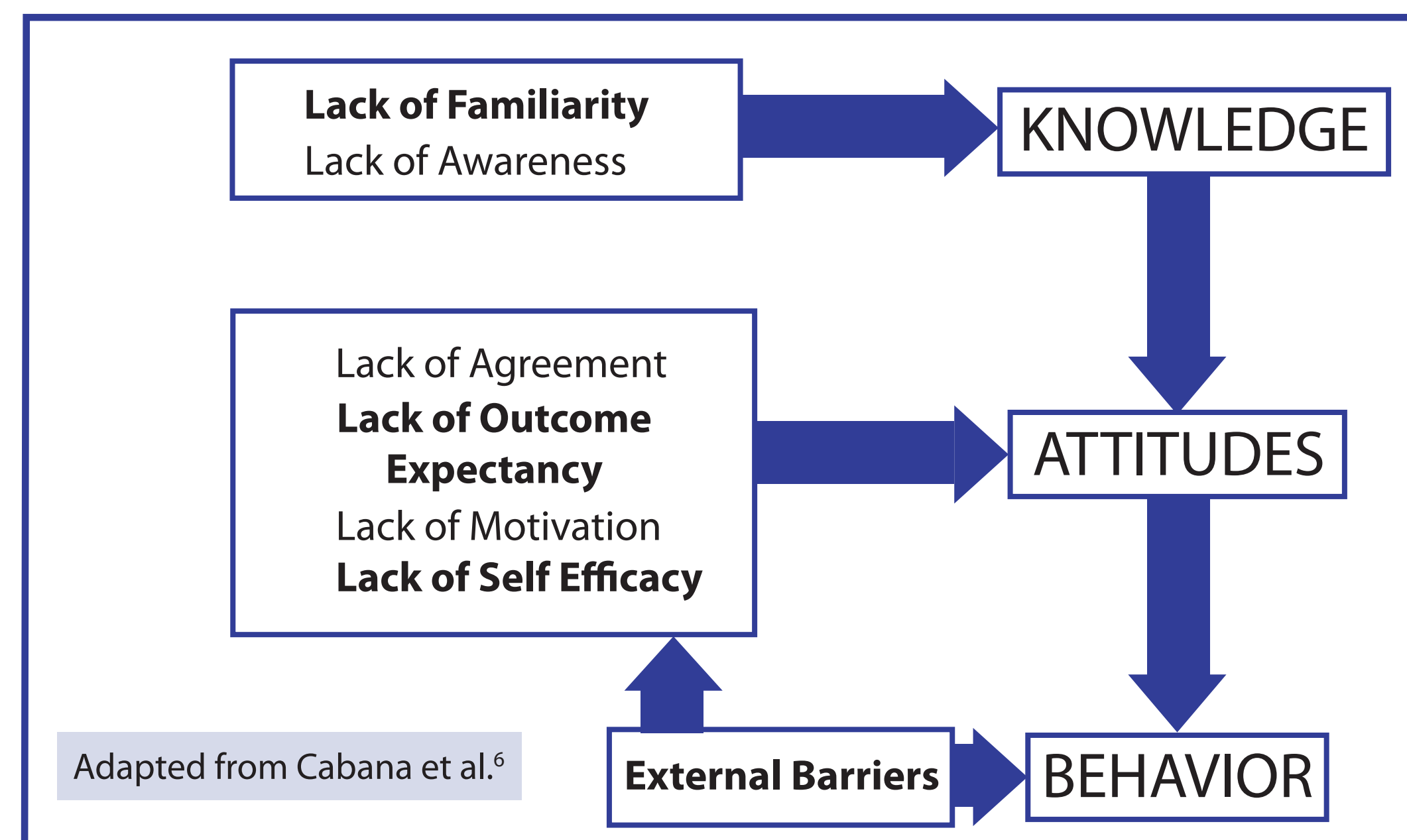
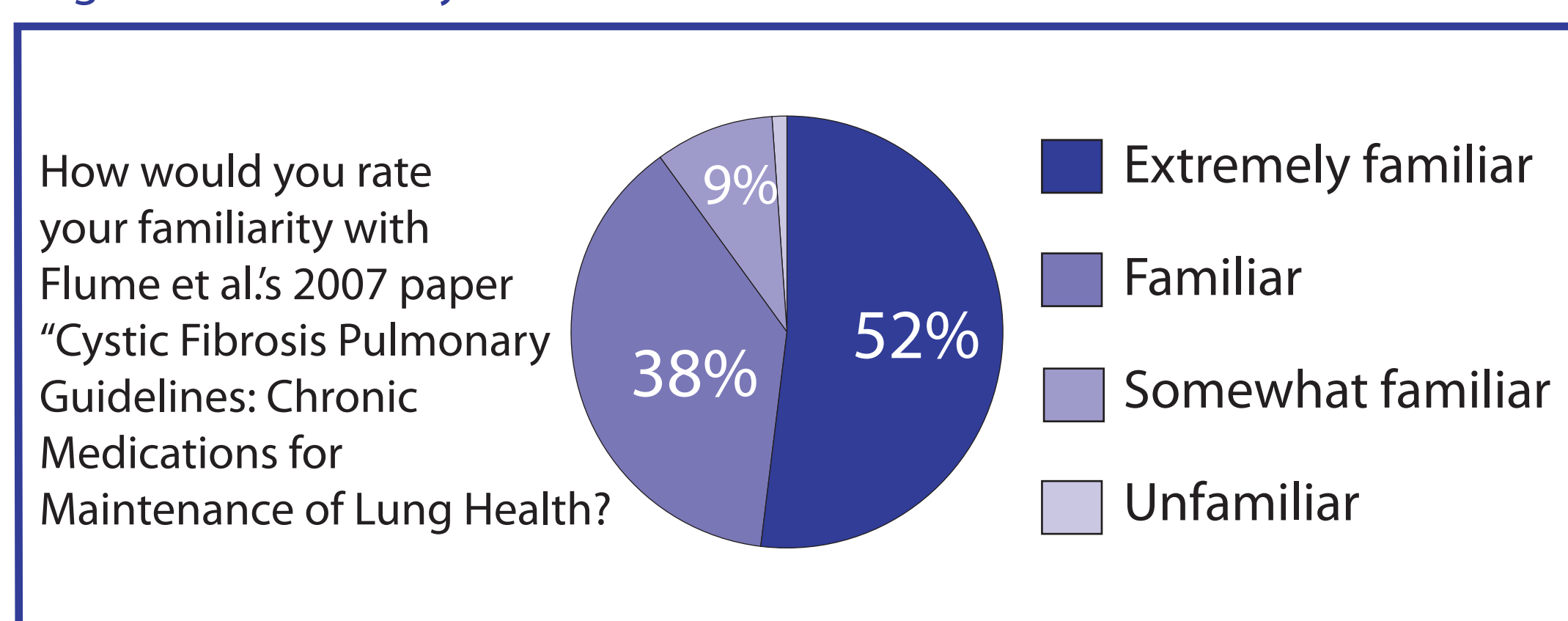


Table 1. Characteristics of Pulmonologist Sample (n=133)

	Director n = 88		Non-Director n = 45	
	Mean	SD	Mean	SD
Years since medical school graduation	27	9	19	12
Degree	MD 97%		98%	
	DO 3%		2%	
Specialty	Pediatric Pulmonary Medicine 70%		76%	
	Adult Pulmonary Medicine 30%		24%	
Gender (% male)	74%		69%	
Physicians in practice (including self)	6	6	6	4
Pediatric patients (≤ 18) seen per week with CF, (p = .01)	9	12	5	5
Pediatric patients (≥ 19) seen per week with CF	5	6	4	4
Total patients seen per week with CF, (p = .001)	14	1	9	6
Medicaid Patients	42%	21	46%	25

Figure 2. Familiarity with CF Guidelines



Results

Figure 3. Self Efficacy - Ease in Initiating Therapy

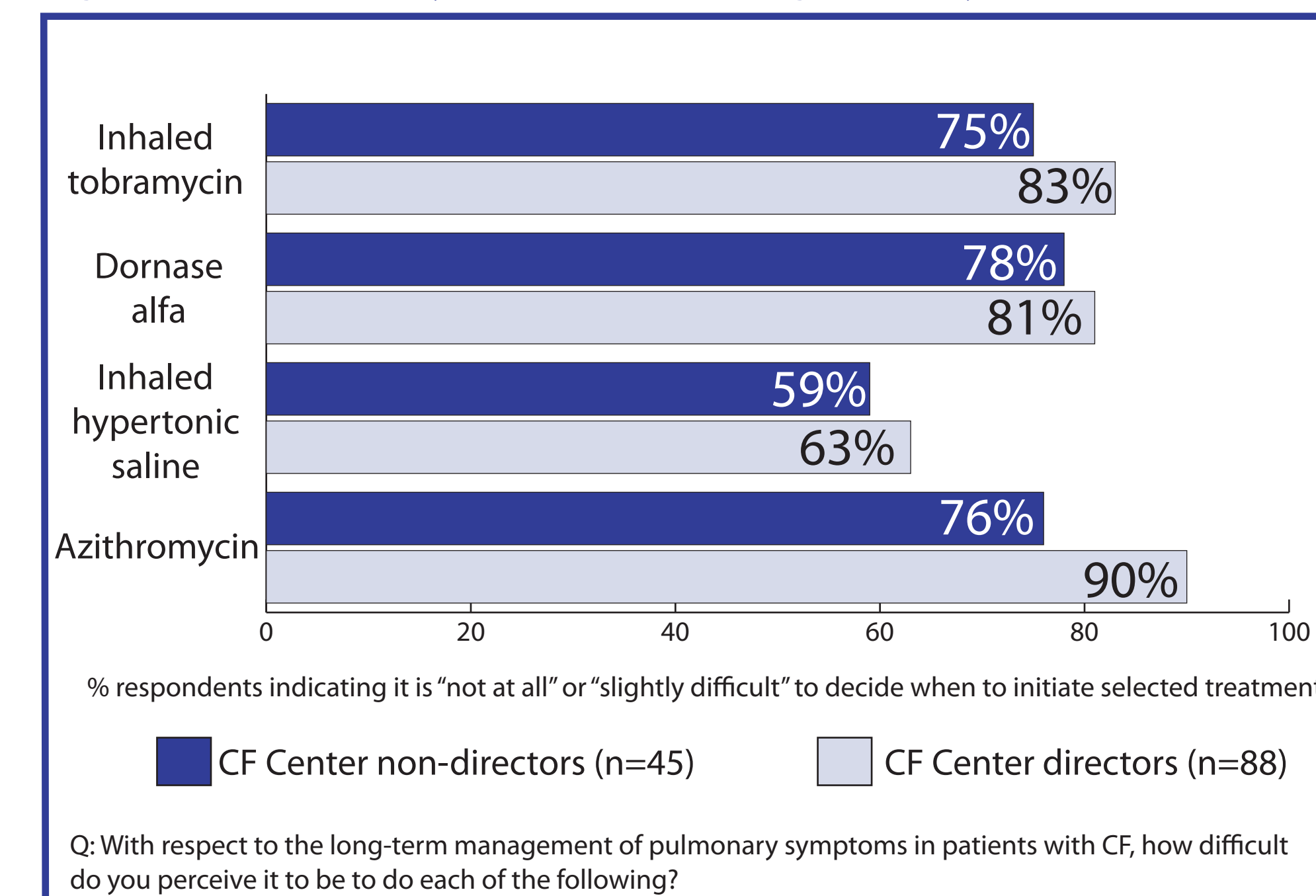


Figure 4. Outcome Expectancy - Reducing Exacerbation

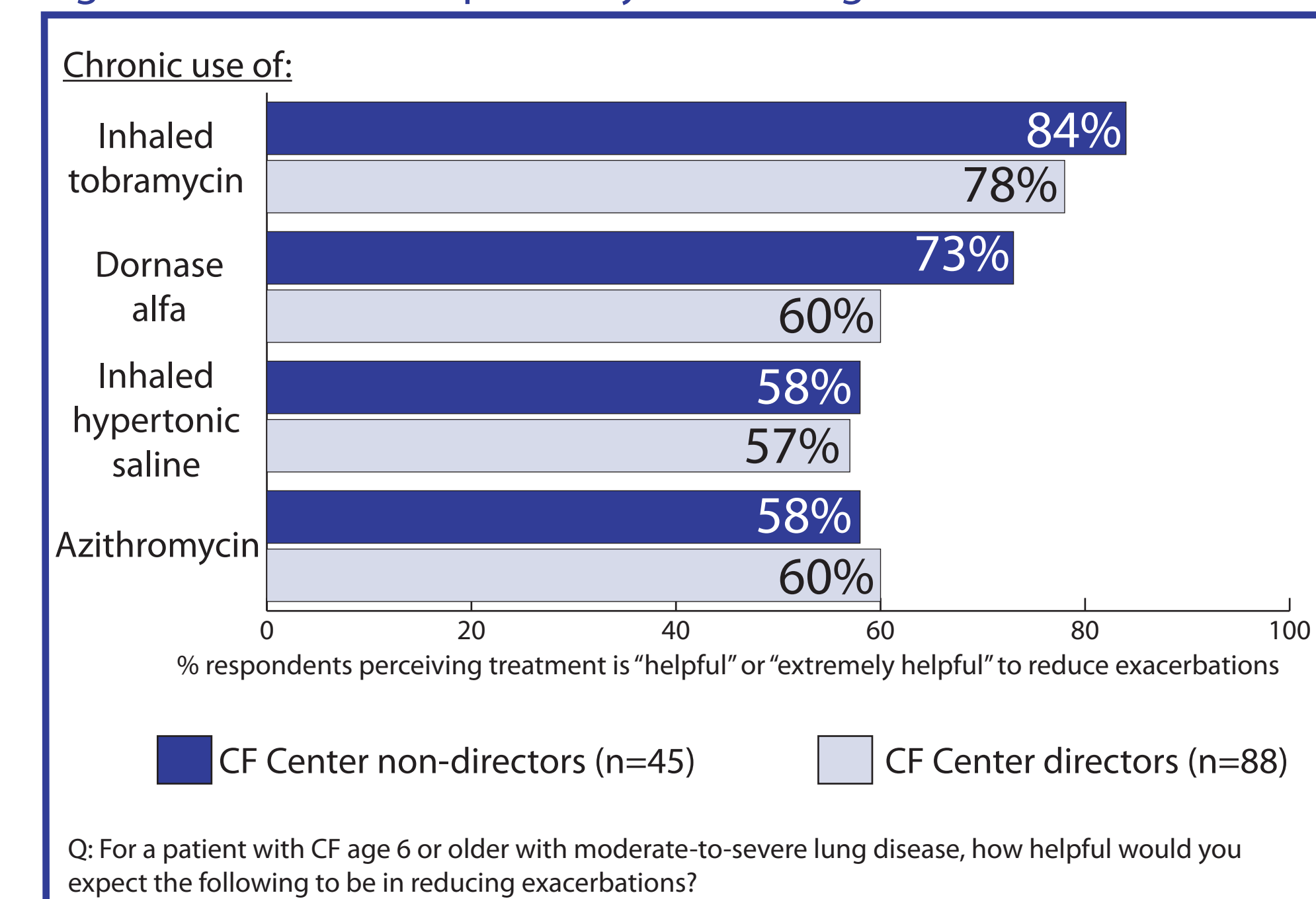


Figure 5. Outcome Expectancy - Improving Lung Function

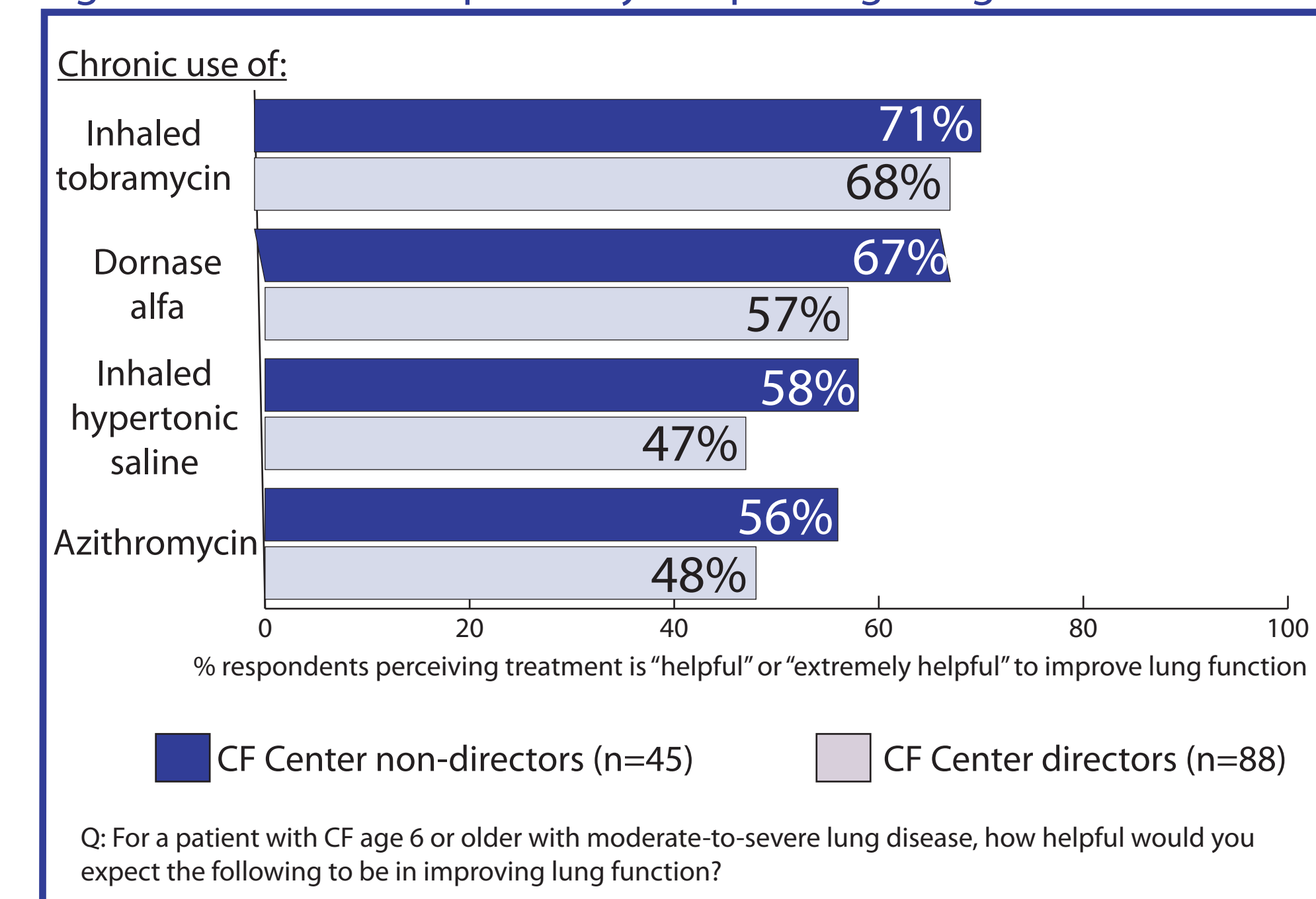
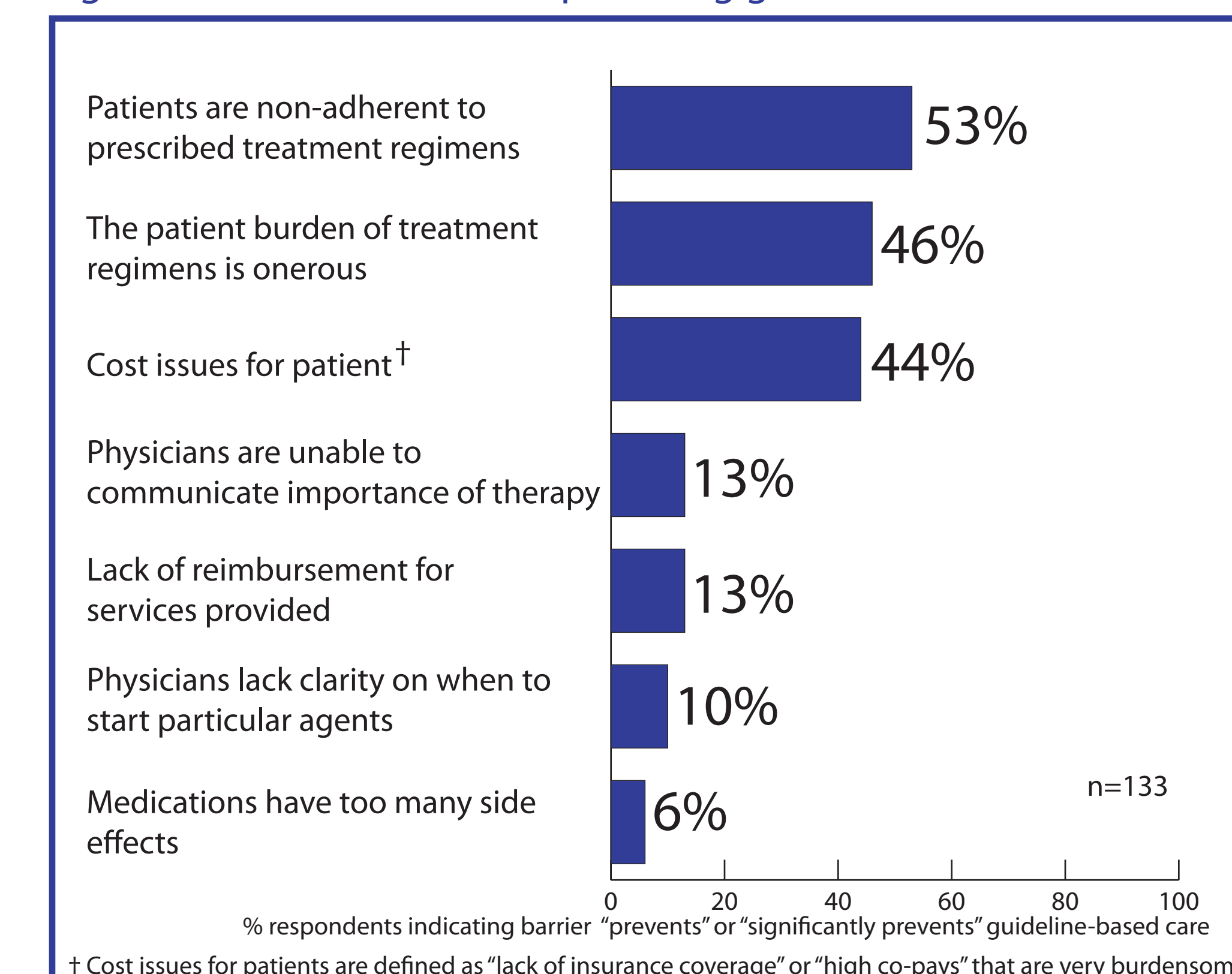


Figure 6. External barriers to providing guideline-based care



Conclusions

- Findings from this study suggest that the guideline recommendations were generally well-received by a majority of physicians treating patients at CF centers
- Physicians did not find it difficult to decide when to initiate any of the four recommended therapies, although use of inhaled hypertonic saline was perceived as more difficult (p < .001)
- Better outcomes (e.g. reduced exacerbations) were expected with the use of inhaled tobramycin, than inhaled hypertonic saline or azithromycin (p ≤ .03)
 - With the exception of dornase alfa, outcome expectancy was perceived to be greater in reducing exacerbations than improving lung function (p ≤ .023)
- Patient-centered external barriers such as non-adherence and drug costs were more strongly endorsed than other types of external barriers (p < .001)
- Future efforts to generate and disseminate evidence for the specific recommendations may be warranted to reinforce and improve adherence; highlighting key recommendations in combination with underlying evidence and relationship to favorable outcomes may be beneficial in increasing CF guideline adherence

Acknowledgements

- This study was supported by Novartis Pharmaceuticals and assistance was provided by the Cystic Fibrosis Foundation.