

The Impact of COVID-19 on Smoking Cessation Motivation and Lung Cancer Screening in Quitline Clients

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Background Information

Smoking is the leading cause of lung cancer.

38% fewer lung cancer cases were diagnosed during the COVID-19 pandemic, but cases diagnosed were at a more advanced stage.

Both people who smoke/have a smoking history and lung cancer patients have an increased risk of COVID-19 and worse outcomes if infected.

Previous research shows why smoking cessation varied during the pandemic, where those who believed that smoking increases COVID-19 risk or those infected with COVID-19 were most likely to quit.

Methods

Study Design: Online survey of quitline clients who expressed an interest in lung cancer screening

Participant Eligibility: Quitline clients between ages 55-80 with a 30-pack year smoking history

Data Analysis: Chi-square analysis

Figure 1:



Results

Quitline Client Characteristics

- 116 total quitline clients
- 58.6% female (n=68)
- 86.3% of clients currently smoke
- Average pack year calculation: 51.81 years (SD=19.39)

Figure 2. Years of smoking per quitline client (M = 42.62, SD=9.30)

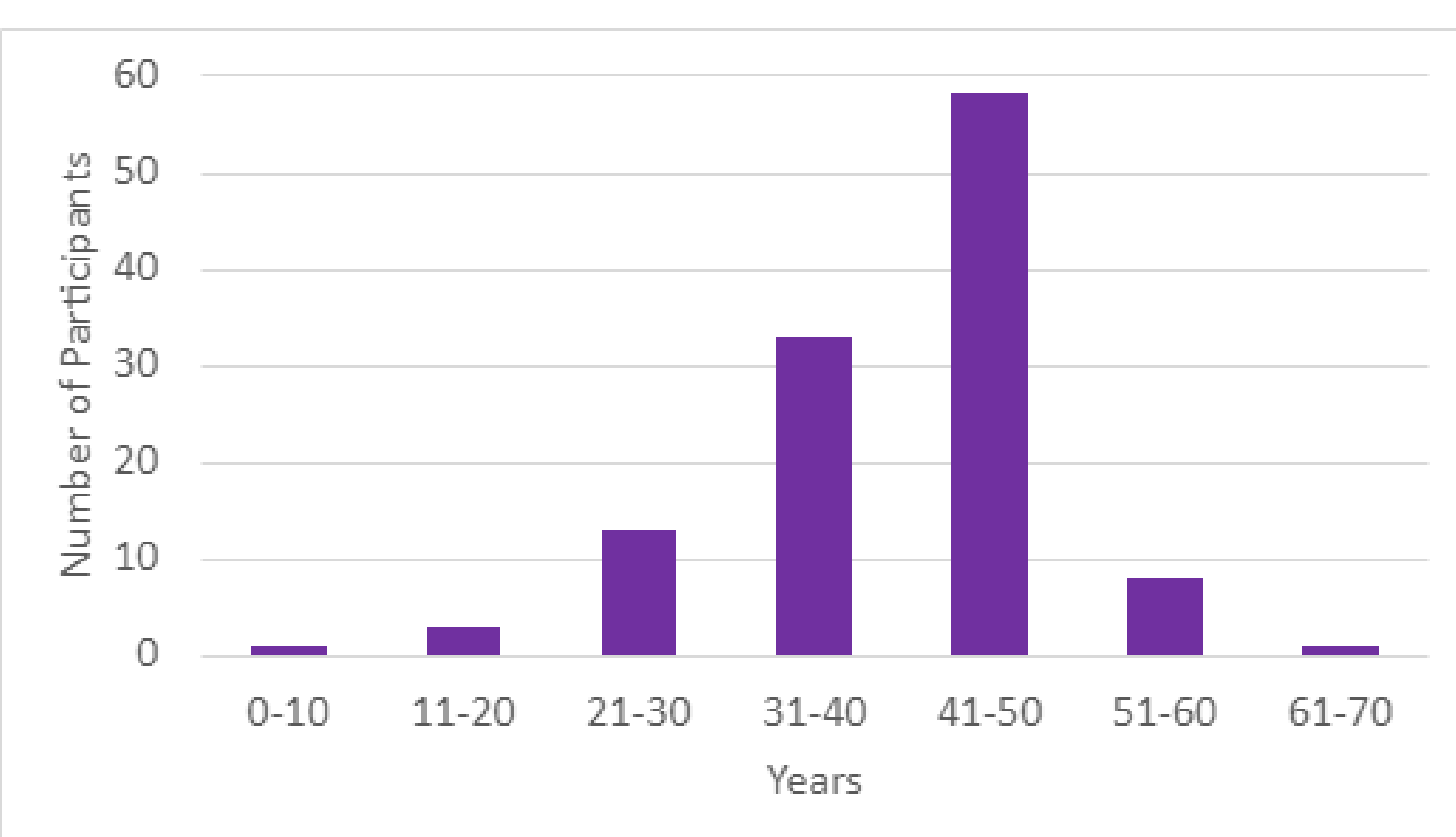


Figure 3. Cigarettes smoked a day per quitline client; (M=19.60, SD=10.77)

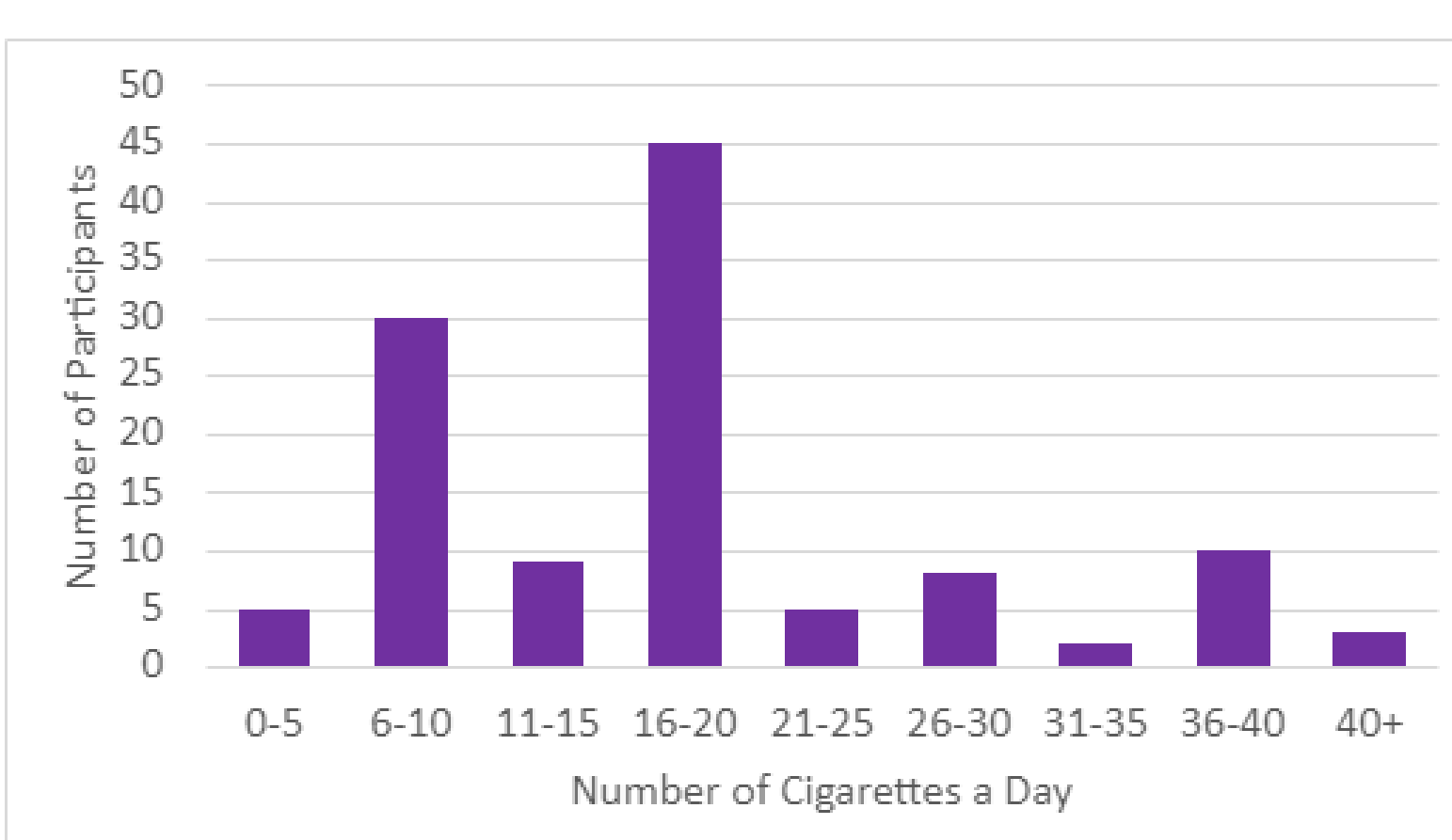


Figure 4. Quitline participants referred from each state

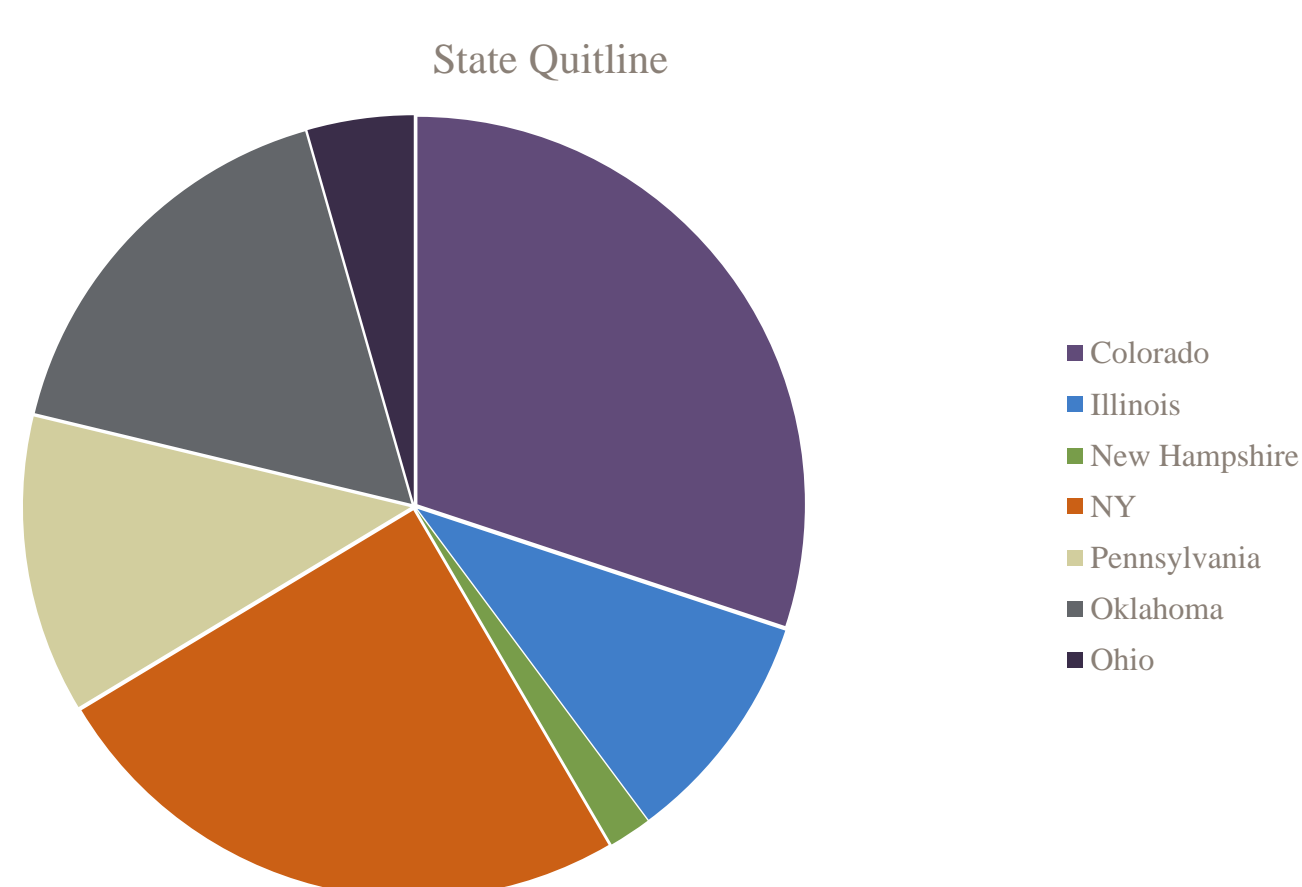


Figure 5. Change in smoking habits during COVID-19 impact on smoking cessation motivation ($\chi^2 (4, N = 117) = 16.943, p = 0.002$)

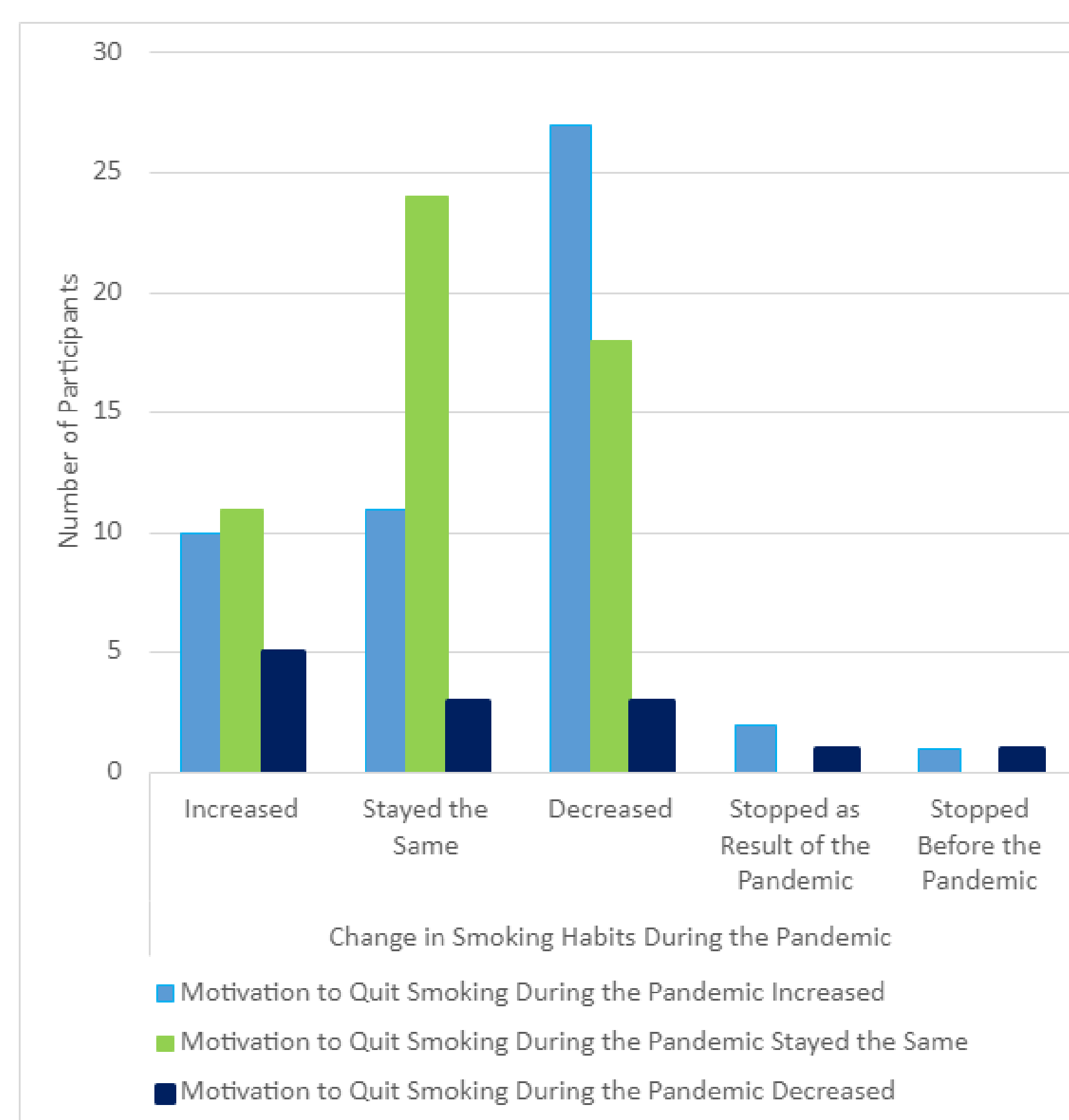


Figure 6. Change in smoking habits during COVID-19 impact on interest in LCS ($\chi^2 (8, N = 117) = 2.087, p = 0.978$)

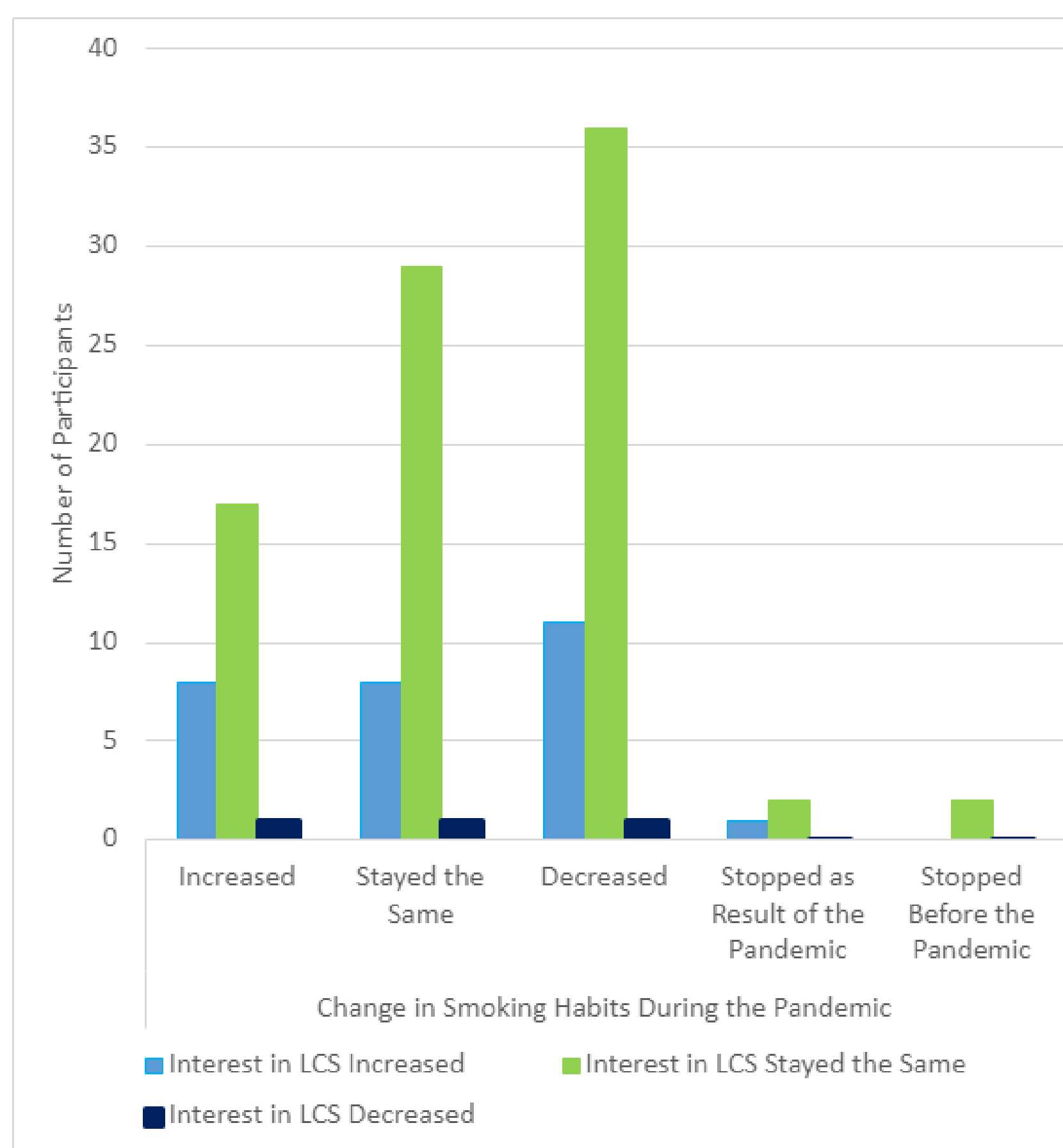


Table 1. COVID-19 diagnosis for client or close contact/member of household impact on change in smoking cessation motivation or interest in LCS

	Number of Quitline Clients	
	Change in Smoking Cessation Motivation	Change in LCS Interest
Increased		
Client tested positive for COVID-19	5	3
Client NEVER tested positive for COVID-19	24	14
Close contact/member of household tested positive for COVID-19	14	11
Close contact/member of household NEVER tested positive for COVID-19	37	17
Stayed the same		
Client tested positive for COVID-19	4	9
Client NEVER tested positive for COVID-19	29	44
Close contact/member of household tested positive for COVID-19	17	24
Close contact/member of household NEVER tested positive for COVID-19	36	62
Decreased		
Client tested positive for COVID-19	4	1
Client NEVER tested positive for COVID-19	13	1
Close contact/member of household tested positive for COVID-19	5	1
Close contact/member of household NEVER tested positive for COVID-19	8	2

Purpose

Previous research has not looked at how the quitline client population was affected during COVID-19, so this project can assist in identifying how to best support clients following the pandemic, and help the scientific community aim research focus, and decide where to allocate resources.

Discussion/Conclusion

Smoking cessation motivation and interest in LCS overall did not change during the COVID-19 pandemic.

On average, clients smoked 20 cigarettes every day for 52 years, so consistent progress in smoking cessation motivation or LCS interest, despite the pandemic, is hopeful.

Time and money can be spent on improving access and awareness to lung cancer prevention resources and quitlines.

Data was collected in early 2021, after the peak of COVID-19, when people began to have COVID-19 fatigue, so data may not fully represent attitudes toward COVID-19.

Further Work

Further research can be done on a broader population, first with quitlines in all states, then the general population to further encourage efforts placed into resources that can help prevent lung cancer and see the impact of COVID-19 across all groups.

Acknowledgments

I would like to thank Dr. Lisa Lowenstein for all her help and the entire Department of Health Services for their support!

Research reported in this work was funded through a Patient-Centered Outcomes Research Institute (PCORI) Award (DI-2018C3-14825) and a grant from NIH/NCI under award number P30CA016672 and used the Decision Science Core and Clinical Protocol and Data Management.

The statements in this work are solely the responsibility of the authors and do not necessarily represent the views of the Patient-Centered Outcomes Research Institute (PCORI), its Board of Governors or Methodology Committee.