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Introduction

- People living with HIV experience high morbidity and mortality for age associated, non-communicable lung diseases such as COPD and lung cancer^[1].
- They also have a higher symptom burden and poorer outcomes from respiratory disease, than HIV negative populations^[1].
- This is due to a complex interplay between HIV co-infection and other risk factors (Diagram 1).
- Current British HIV guidelines include information on annual screening for cardiovascular, kidney and bone health^[2]. However, unlike European HIV guidelines^[3], there is no recommendation regarding assessments for respiratory health.
- We wanted to document, therefore, the burden of uninvestigated respiratory symptoms at our London HIV clinic.

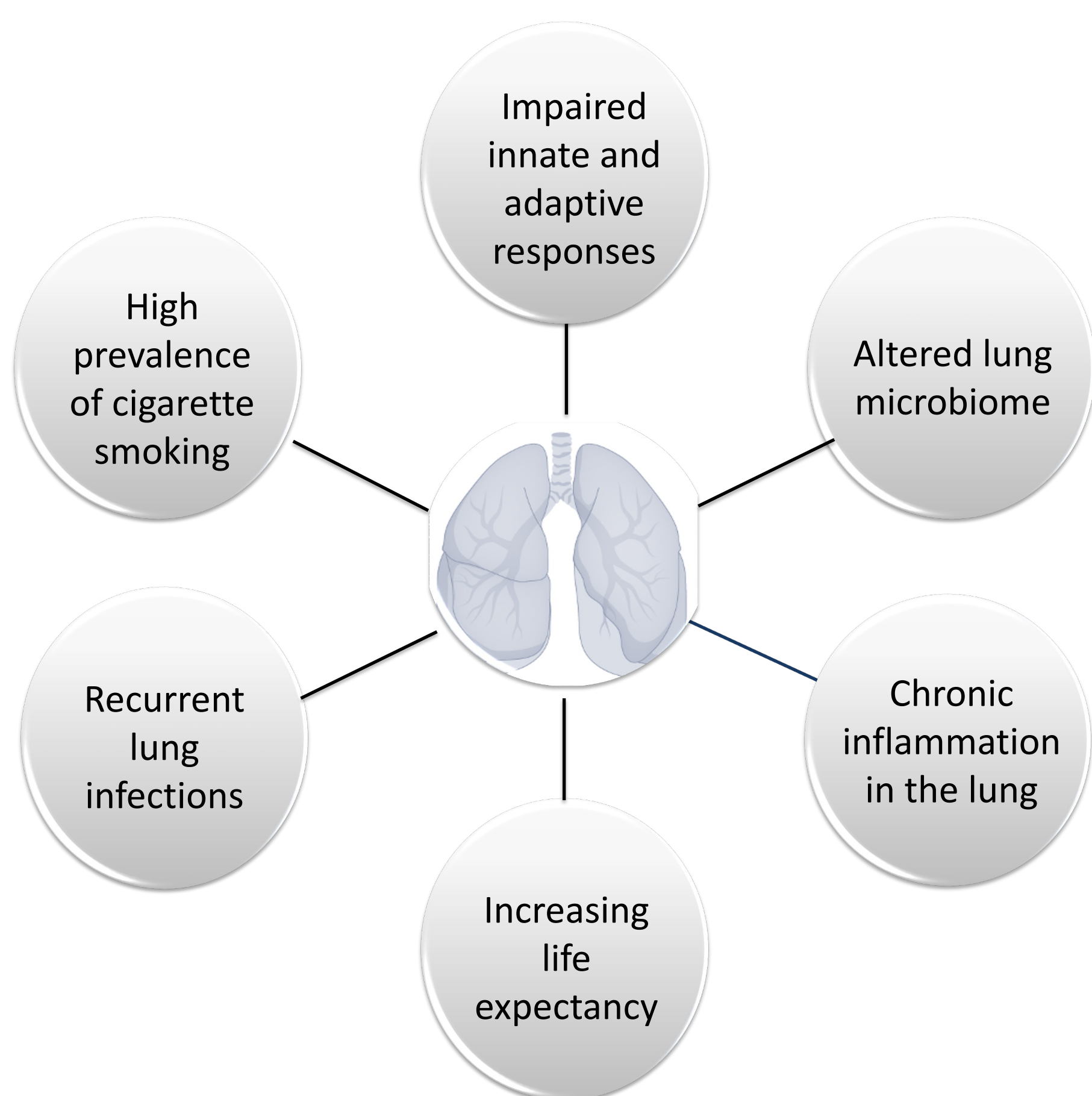


Diagram 1: Chronic lung disease in people living with HIV is due to the interplay between a number of different factors.

Methods

- We adapted a simple respiratory symptom questionnaire taken from European guidelines (Diagram 2), and included questions on smoking status, current lung infections and previous follow up for these symptoms.
- The questionnaire was distributed in the waiting area of our London HIV ambulatory clinic and took 2-3 minutes to complete. Participation was optional.
- Responses were collated after 3 weeks and cross-referenced with electronic patient and GP records, in which we looked for previous investigations that may explain symptoms (spirometry, CT thorax or echocardiography), and relevant follow-up by a parent cardiology or respiratory team.
- Participants were then divided into those who had previously been investigated or were under follow up for their symptoms, and those who had not been investigated.
- Uninvestigated participants received a telephone triage with a clinician, and further assessments were initiated as needed.

Diagram 2: Questionnaire used to assess respiratory health

Have you had any of the following for more than 3 days a week each week in the last few months:	Please circle	
• Shortness of breath on moderate exertion (for example when walking up a slight hill or hurrying on flat ground)	Yes	No
• Cough and/or sputum production	Yes	No
• Recurrent wheezing	Yes	No
Are you a current tobacco smoker?	Yes	No
If no, have you ever smoked tobacco regularly in the past?	Yes	No
If yes to either of the above, how many years did you or have you smoked for?	
How many cigarettes do you, or did you smoke a day on average?	<5	5-10 10-20 20-30 >30
Have you ever been diagnosed with a chronic respiratory illness? (This may include COPD, interstitial lung disease, pulmonary tuberculosis, asthma, lung cancer or heart failure etc). If yes, please state the diagnosis below.		
Are you currently being treated for a respiratory infection (such as tuberculosis, bacterial pneumonia, pneumocystis pneumonia, long covid or other).		
Are you currently being followed up by a doctor for your respiratory symptoms? Please give information if so.		

Results

- 76 participants filled in the questionnaire and aged in range from 31 to 77 years old. 56 were male, 8 female (12 no data).
- 41 (54%) reported at least one symptom, with 27% more than one (Figure 1).

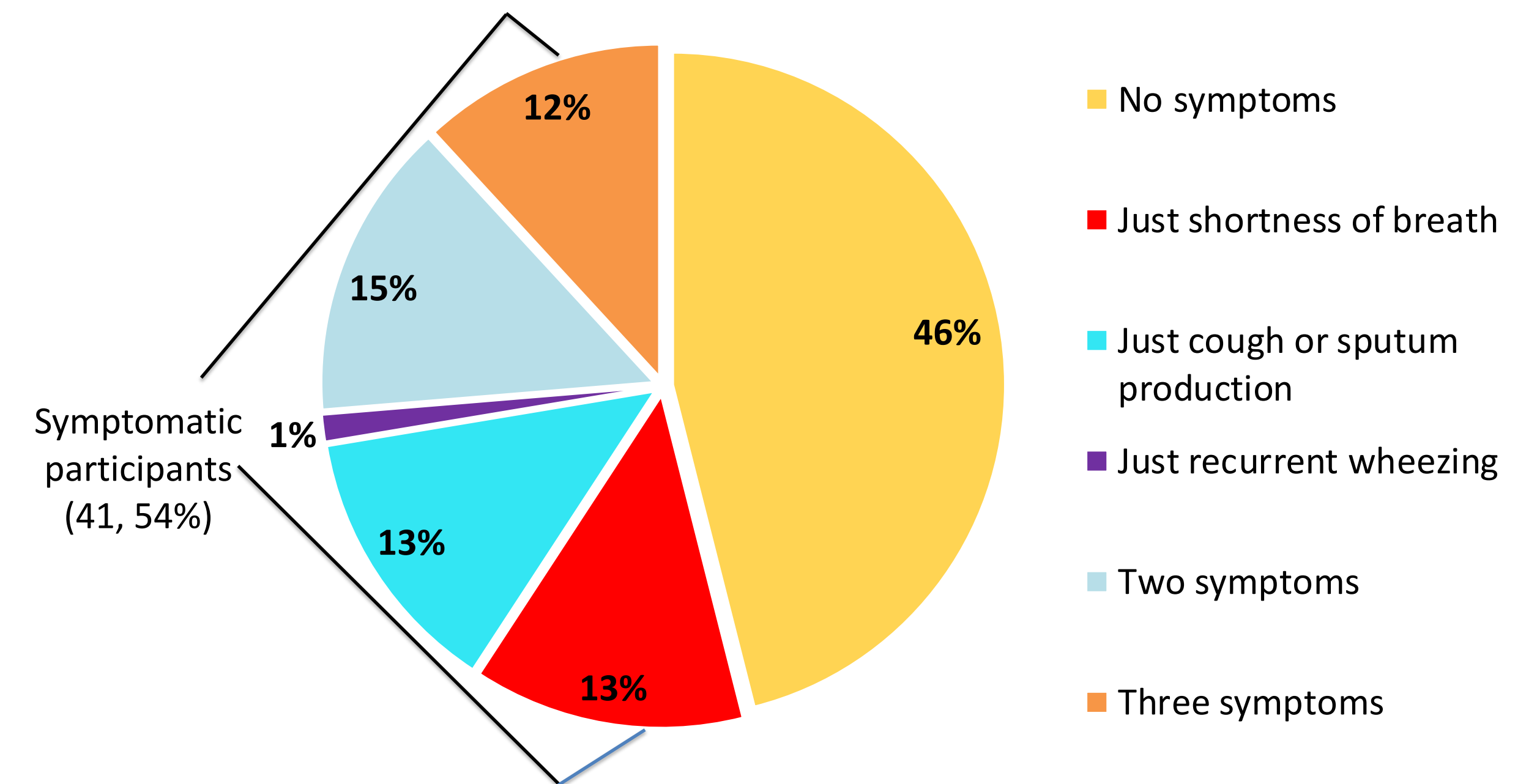
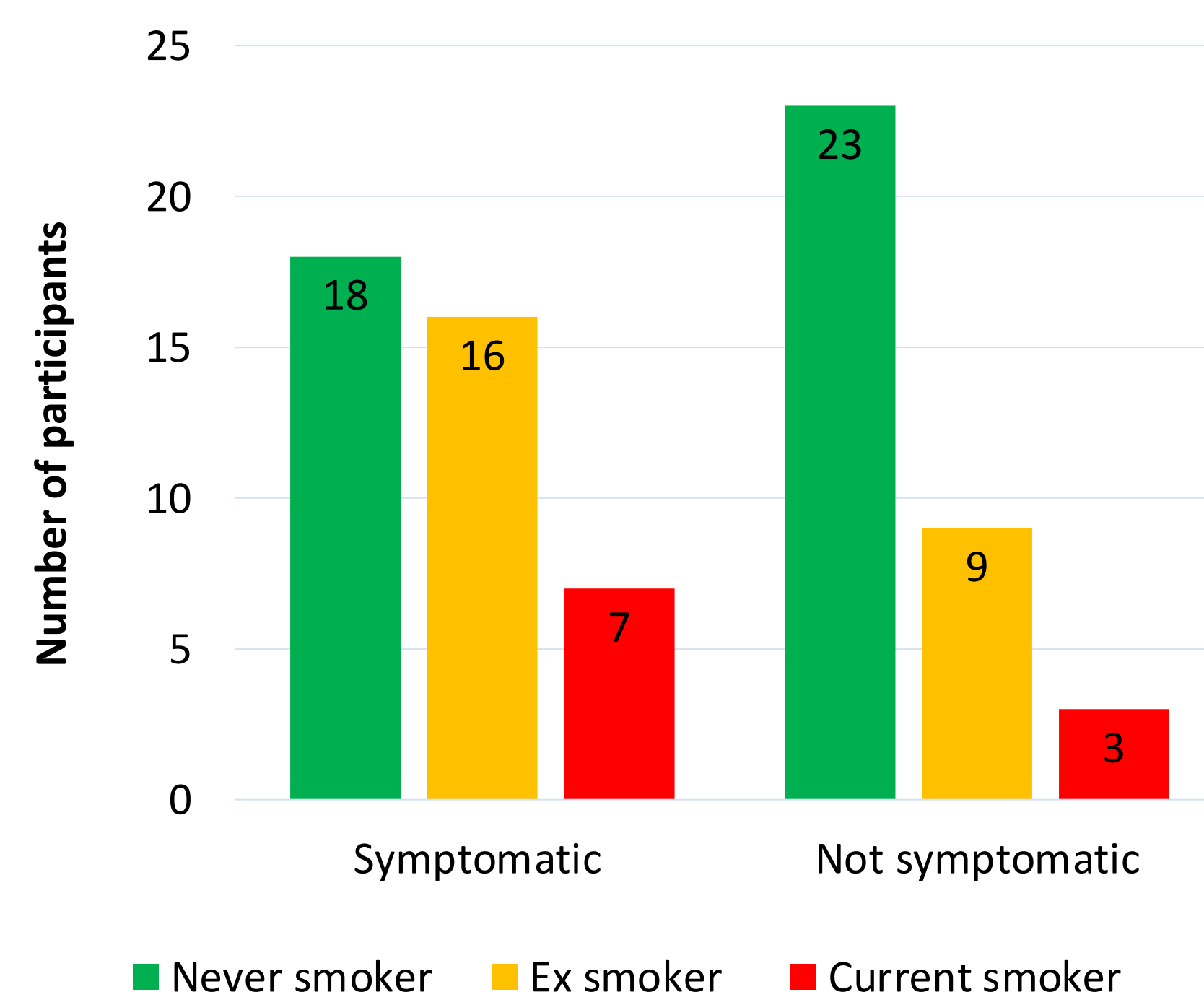


Figure 1: Proportion of self-reported respiratory symptoms (n = 76)



- 35 (46%) reported regular current- or ex- tobacco use (Figure 2).
- Of symptomatic participants, 18 (44%) had never smoked.
- Of symptomatic participants, 60% were aged between 51-65.

Figure 2: The proportion of symptomatic and asymptomatic participants and their smoking status (n = 76)

- Of 41 symptomatic participants, 18 (26%) had been investigated for, or had an established management plan for their symptoms, leaving 21 (28%) with uninvestigated symptoms.

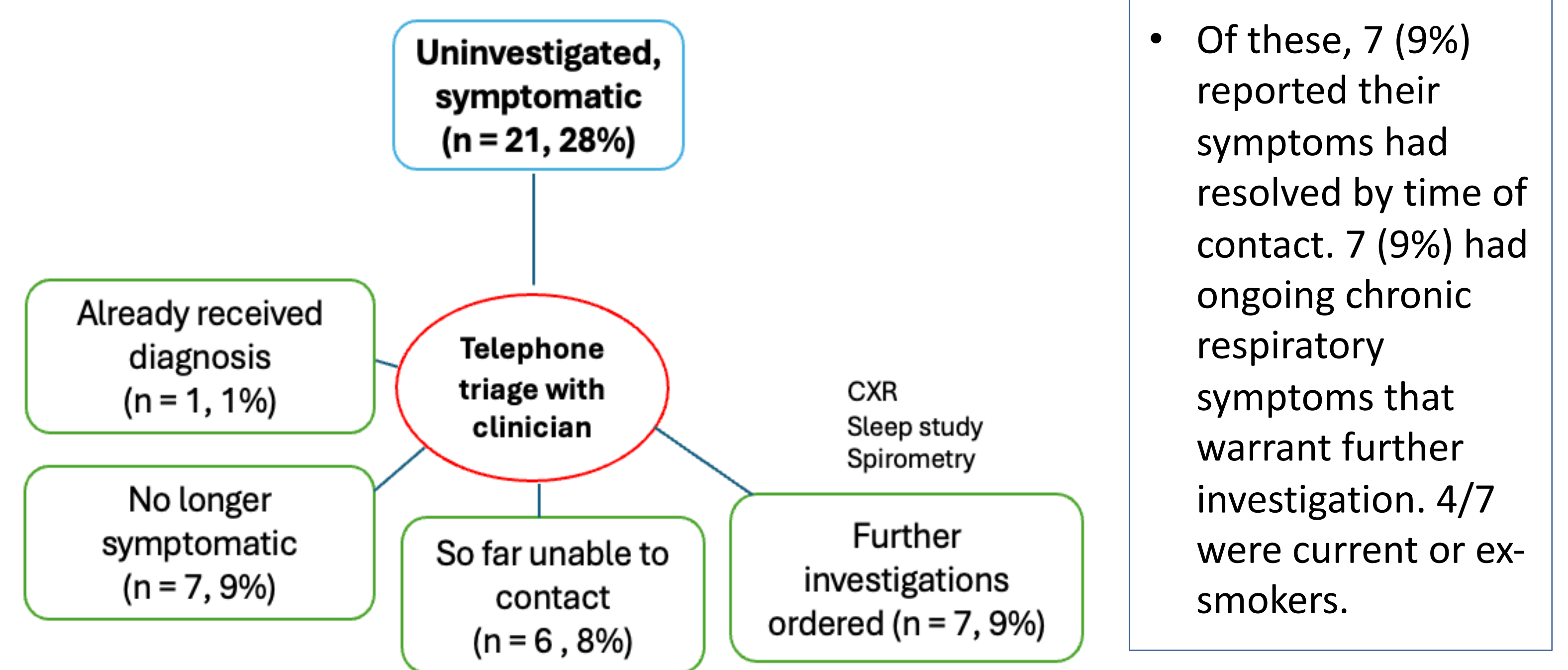


Figure 3: Outcomes of participants with previously uninvestigated respiratory symptoms (n = 21)

Conclusions

- Using a questionnaire-based assessment in a relatively small clinic-based sample, we identify a high burden of respiratory symptoms, many of which are uninvestigated.
- Symptoms are reported by both smokers and non-smokers living with HIV across a range of ages.
- Our results are consistent with our previous work, and we will now refine the tool and develop a clinical pathway that investigates efficiently this unmet symptom burden.
- This includes offering smoking cessation and tobacco dependency management in those requiring it.

References

1. HIV-associated lung disease. Konstantinidis et al. Nature rev primers. 2023
2. BHIVA Monitoring guidelines. Available at: <https://www.bhiva.org/file/DqZbRxfzYtLg/Monitoring-Guidelines.pdf>
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