

Transforming COPD Care across the Humber: proactive identification and risk management across the care pathway (Humber COPD ProCare)

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Introduction

Chronic Obstructive Pulmonary Disease (COPD) is common, preventable and treatable, yet it remains a major driver of healthcare resource use and premature mortality. The respiratory transformation partnership aims to support early and accurate diagnosis and risk-based optimisation for people with asthma and COPD. In 2025, pathway transformation funding was made available to a number of health systems in England to achieve these goals. We report the implementation of a preventative, neighbourhood-based care model focused on early and accurate diagnosis, digital risk stratification, and proactive optimisation.

Aim

To report the implementation of a preventative, neighbourhood-based care model focused on early and accurate diagnosis, digital risk stratification, and proactive optimisation

Humber COPD ProCare

- Targeted case-finding aligned with lung cancer screening
- Workforce training to maximise locally enhanced service uptake
- Development of a digitally enabled population health management approach
- Risk-based optimisation and supported guideline implementation
- Enhanced integrated COPD care and COPD virtual ward expansion

Early and Accurate Diagnosis



Optimising Care to Improve Outcomes

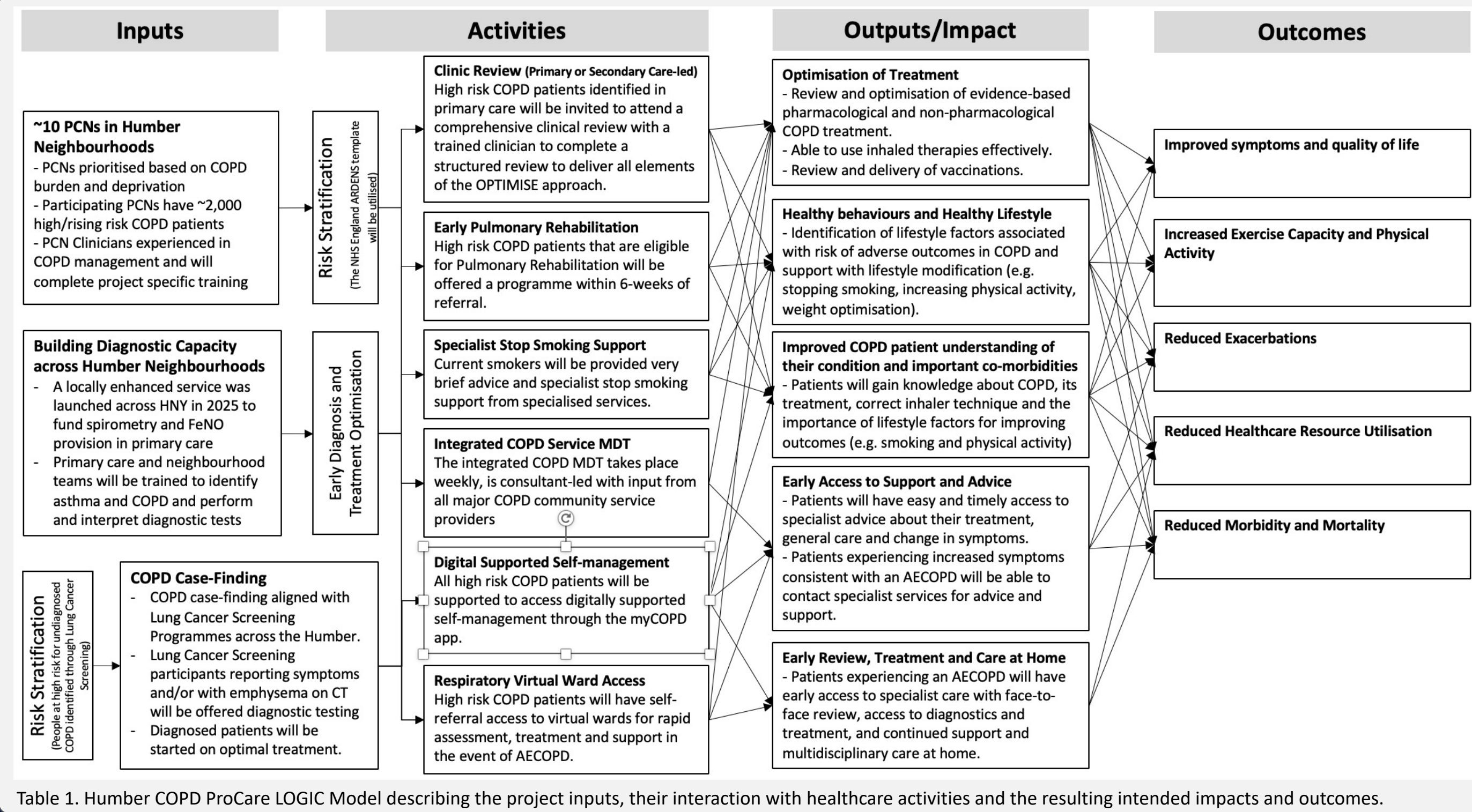
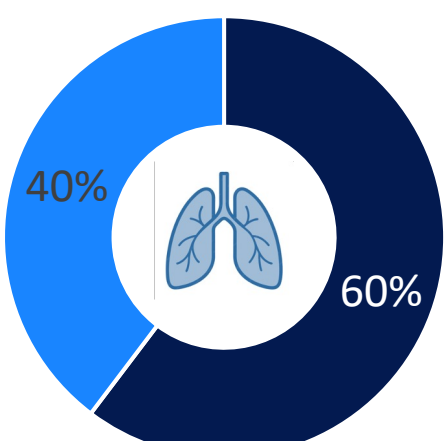


Table 1. Humber COPD ProCare LOGIC Model describing the project inputs, their interaction with healthcare activities and the resulting intended impacts and outcomes.

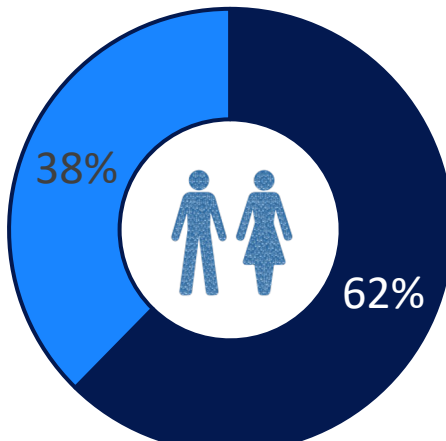
Results

Early and accurate diagnosis: lung cancer screening aligned COPD case-finding

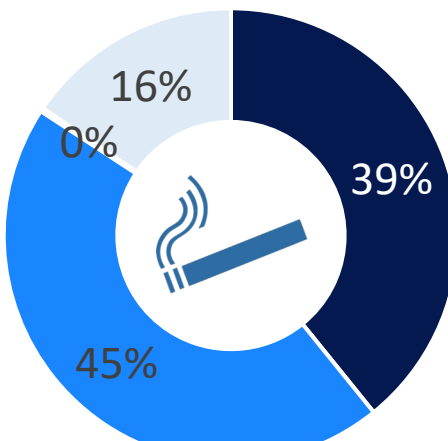
- 393 people attended a one-stop diagnostic appointment and 237 (60%) were diagnosed with COPD
- The median [range] age of participants was 69 [46-79] years
- 245 (62%) participants were male and 148 (38%) were female
- 154 (39%) participants were current smokers



■ COPD ■ No COPD



■ Male ■ Female



■ Current Smoker ■ Ex-smoker
■ Never smoker ■ Vapes

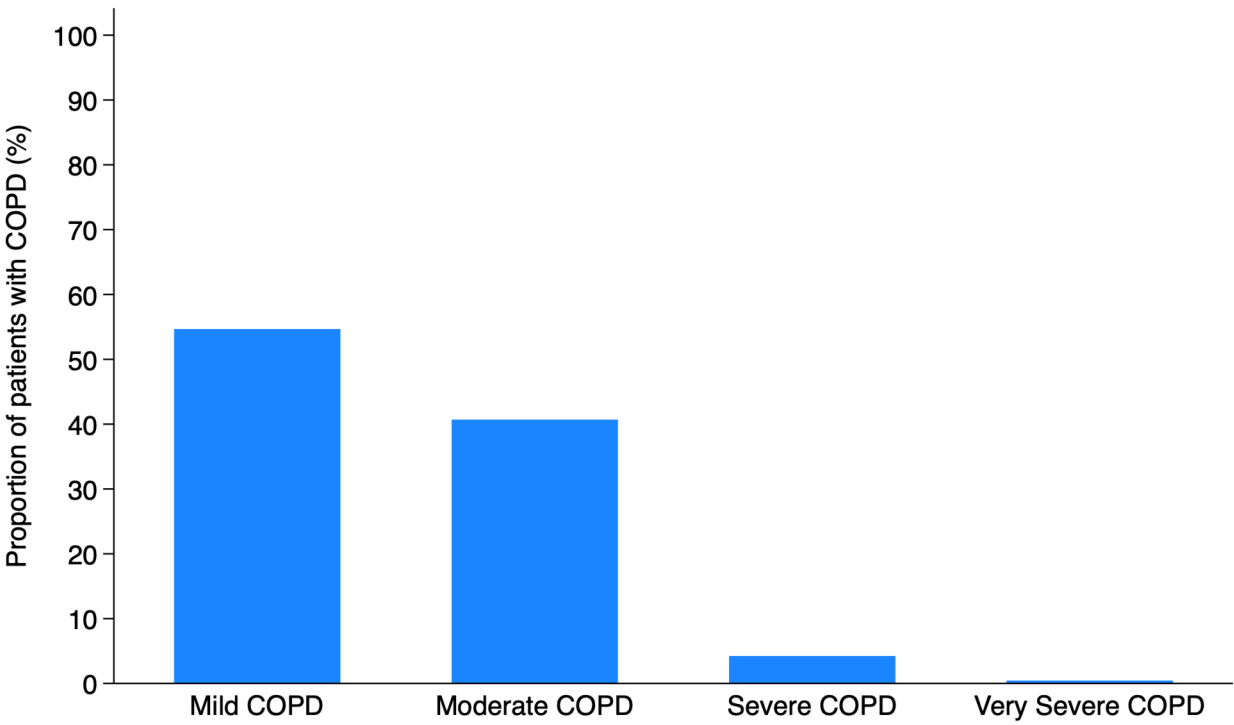
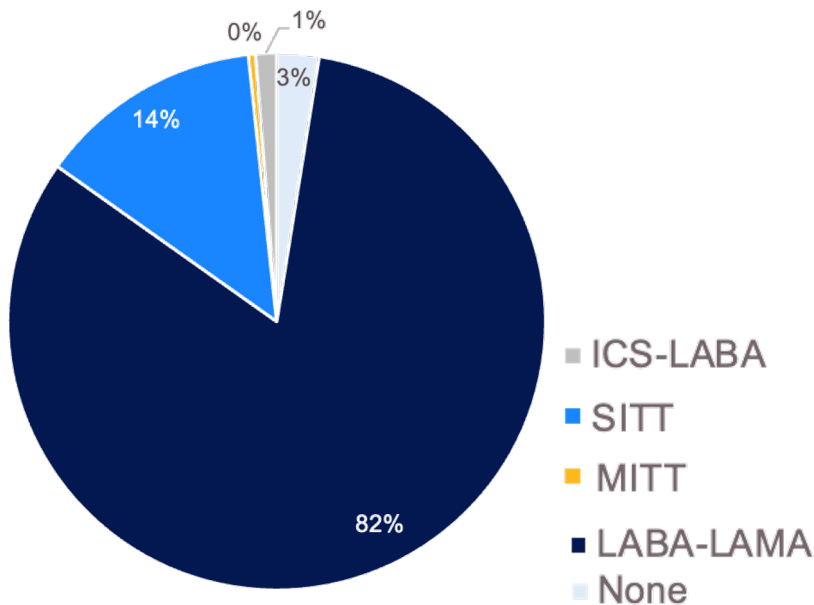


Figure 1. Bar graph demonstrating the proportion of patients with COPD confirmed through case-finding with the respective COPD GOLD severities based on their post-bronchodilator FEV1.

Management Plan	Frequency – n (%)
Pulmonary Rehab (COPD Only)	
- Not applicable	132 (57)
- Declined	18 (8)
- Referred	17 (7)
- Missing Data	70 (30)

Table 2. Pulmonary rehabilitation referrals for newly diagnosed COPD patients as an example of a non-pharmacological intervention

Figure 2. Pie chart demonstrating the pharmacological treatment initiated following COPD diagnosis during case-finding.



Risk-based optimisation and supported guideline implementation (OPTIMISE)

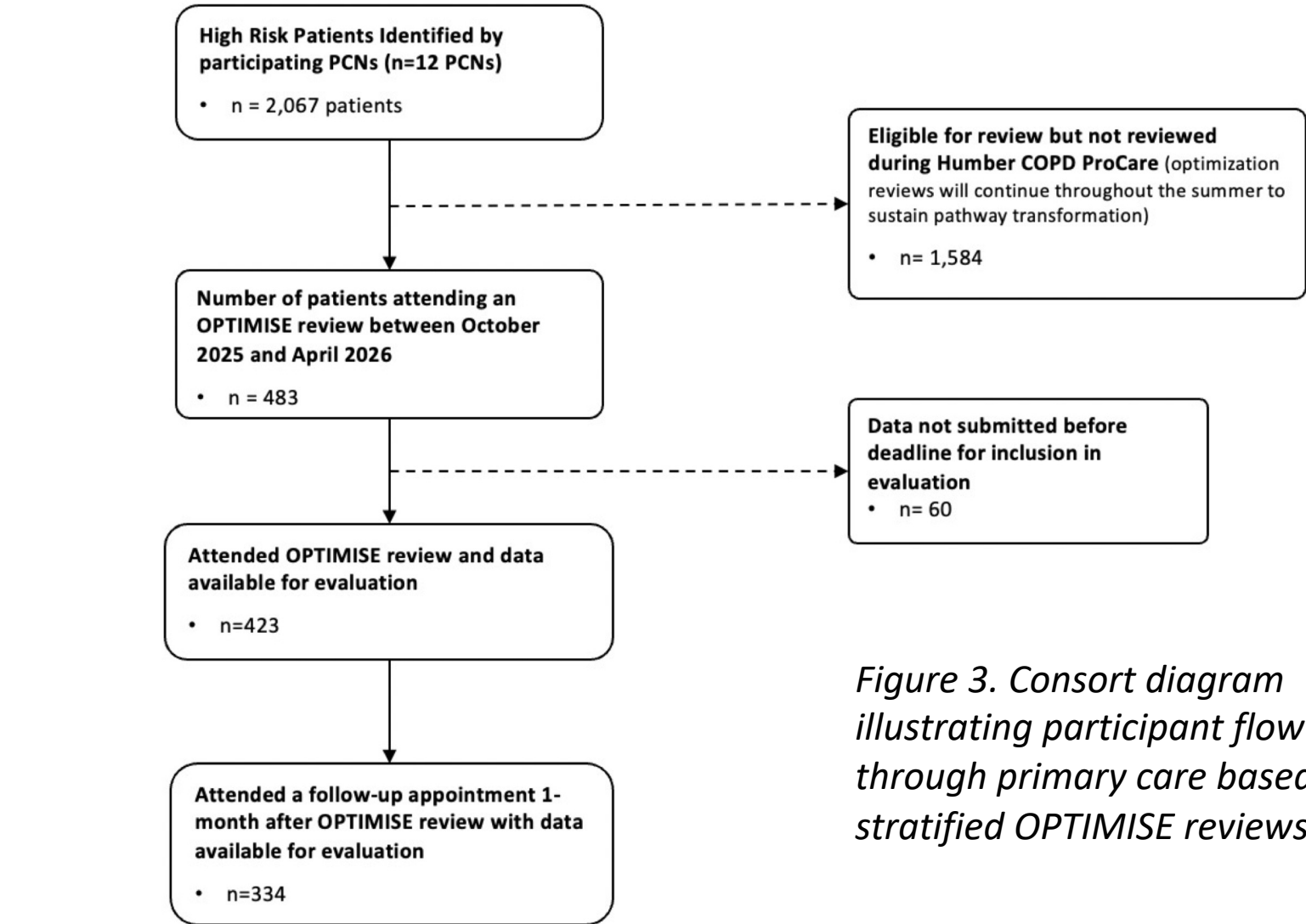


Figure 3. Consort diagram illustrating participant flow through primary care based, risk stratified OPTIMISE reviews.

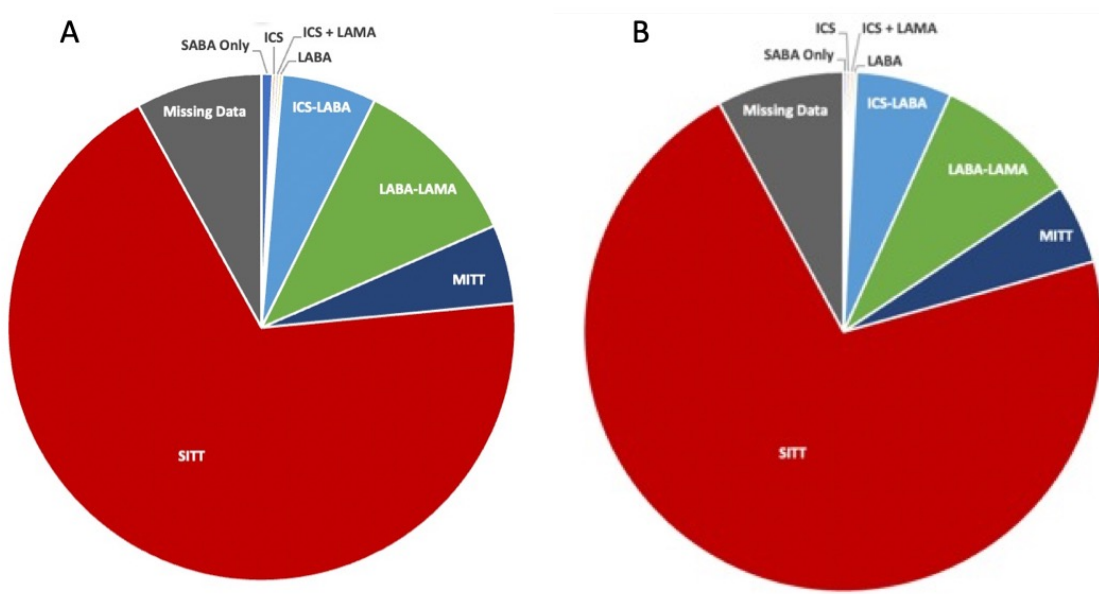


Figure 4. Pie charts illustrating COPD treatment maintenance inhaled therapy before (A) and after (B) OPTIMISE review.

Potential Biologics Eligibility	OPTIMISE Participants with complete data to enable biologic eligibility assessment (n=308)
Proportion of patients attending for OPTIMISE review that meet NICE Dupilumab eligibility criteria – n (%)	
- On triple therapy	244 (79)
- 2 or more moderate and/or 1 or more severe exacerbations	243 (79)
- Blood eosinophils >= 0.3 x10 ⁹ cells/L	101 (33)
- Meet Eosinophil and Exacerbation Criteria	80 (26)
- Meet all criteria	70 (23)

Table 3. The number (%) of OPTIMISE review participants meeting current biologics eligibility criteria at the time of review.

Conclusions

Lung cancer aligned COPD case-finding and the OPTIMISE model both represent pro-active, risk-based approaches that align with the NHS’s strategic ambitions. Adopting a whole system approach offers opportunities to improve the patient pathway and outcomes for people living with diagnosed and undiagnosed COPD.

Funding

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