Policy Proposal:
Ignore or Explore COPD?

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Contents:

List of Abbreviations:

- **COPD:** Chronic Obstructive Pulmonary Disease
- **CT:** Computed Tomography
- **GOLD:** Global Initiative for Chronic Obstructive Lung Disease
- **LDCT:** Low-Dose Computed Tomography
- **LHC:** Lung Health Check
- **NHS:** National Health Service
- **NICE:** National Institute for Health and Care Excellence
- **OP:** Operational Pilot
- **TLHC:** Targeted Lung Health Check
- **UK NSC:** UK National Screening Committee
- **WIMD:** Welsh Index of Multiple Deprivation

Policy Proposal Overview:

Over the past 20 years, Wales and the rest of the UK have not seen significant improvements in outcomes for individuals living with lung conditions.[1] Chronic Obstructive Pulmonary Disease (COPD), which includes conditions such as emphysema and chronic bronchitis, remains a substantial public health concern.[2] Currently in Wales:

- One in five people has a lung condition.[3]
- Respiratory diseases are among the top three leading causes of death.[4]
- COPD causes 1,800 deaths each year.[5]
- Individuals living in the most deprived areas of Wales, as indicated by the Welsh Index of

Multiple Deprivation (WIMD), are five times more likely to die from COPD.[5,6]

- Over the past 20 years, the avoidable mortality rate for respiratory diseases has improved by 4%, while the avoidable mortality rate for cardiovascular diseases has improved by 56%.[5]

In June 2022, the UK National Screening Committee (UK NSC) recommended introducing targeted lung cancer screening.[7] Three years later, the Welsh Government has completed its Lung Health Check (LHC) Operational Pilot (OP), which examined how Wales might implement the UK NSC's recommendation.[8] The OP used low-dose computed tomography (LDCT) scans to detect lung cancer. LDCT scans provide detailed images of the lungs, which can reveal abnormalities such as emphysema or airway thickening, both of which are indicative of COPD.[9] This is commonly referred to as incidental findings.

This pilot uncovered significant incidental findings of emphysema, one of the conditions included in COPD. Among participants:

- 61% of participants had mild, moderate, or severe emphysema.[8]
- Nearly half of those with moderate or severe emphysema were unaware of their condition.[8]

Given the current landscape of respiratory disease in Wales, we call on the Welsh Government to adopt a comprehensive approach to COPD management. This includes deciding whether to explore or ignore incidental findings of COPD when developing a national lung cancer screening programme.

By utilising the efficiencies of any future lung cancer screening programme that can identify potential cases of COPD, we could significantly improve outcomes for patients. This approach could provide essential support to a proportion of the estimated 54,000 individuals in Wales living with undiagnosed COPD, giving them access to appropriate treatment.[10]

The primary goal of this policy proposal is to enhance the diagnosis and management of COPD by utilising incidental findings from lung cancer screenings. This proposal underscores a unique opportunity for Wales to transform the diagnosis and care for individuals with COPD.

Purpose and Scope:

Purpose: Integrate an incidental findings pathway for COPD into a national lung cancer screening programme to transform diagnosis and treatment in Wales. This approach could improve patient outcomes and reduce the burden on the National Health Service (NHS).

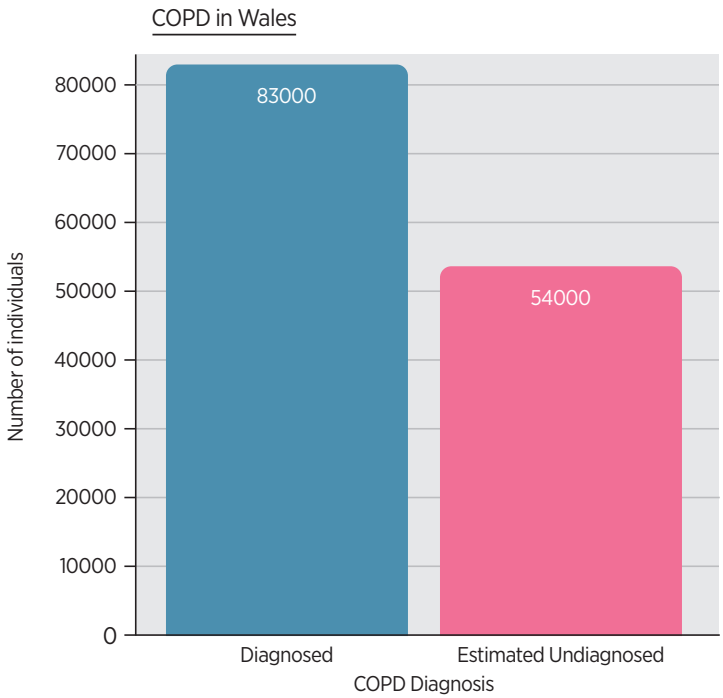
Scope: This policy will target people aged 60-74 years who are current or past smokers participating in the lung cancer screening programme, which, through low-dose computed tomography LDCT scans, have been identified as having moderate or severe emphysema.

Declining Outcomes for COPD in Wales:

COPD is a significant health issue in Wales, with the joint highest prevalence of COPD in the UK, affecting around 83,000 diagnosed individuals.[11] However, it is estimated that around 54,000 more people are living with COPD but remain undiagnosed.[10]

COPD encompasses conditions such as emphysema and chronic bronchitis.[2] Around 85% of COPD cases are caused by smoking directly, and around 1 in 5 smokers will develop COPD.[12] Wales currently has the second-highest smoking prevalence in the UK.[13]
It is important that patients can access quality-assured post-bronchodilator spirometry testing, which is a Lung function test before and after using medication.[11]

As highlighted in the Wales primary care clinical audit report 2021–23, only 21.4% of COPD patients had accessed post-bronchodilator spirometry testing at the time of writing the audit.[11]



Asthma + Lung UK. Delayed Diagnosis and Unequal Care.[10]
Royal College of Physicians. Wales primary care clinical audit report 2021–23.[11]

COPD causes 1,800 deaths each year, and the avoidable mortality rate for respiratory disease has improved by 4% in the past 20 years.[5] This is in sharp contrast to cardiovascular disease, which has seen a 56% improvement in the avoidable mortality rate.[5]

Deaths due to COPD contribute to respiratory disease remaining in the top three causes of death and a significant health equity issue.[4] People living in the most deprived areas of Wales, as identified by WIMD, are five times more likely to die from COPD.[5,6]

Each year, there are 12,000 emergency hospital admissions due to COPD.[5] According to research by Asthma + Lung UK, treating COPD costs the NHS £211 million a year, and it is the second largest cause of emergency hospital admissions in Wales.[5]

However, the strain of respiratory disease on the NHS is not new, as we know that from 1999 to 2020, COPD-related admissions in England and Wales rose by 65.5%.[14]

Despite clinicians' dedicated efforts, the evidence presented in this proposal indicates that COPD poses a considerable burden on NHS resources. Although the Welsh Government has taken measures to improve outcomes for patients with COPD, there remains significant potential for further improvements.

A Unique Opportunity to Reverse the Declining Outcomes for COPD In Wales:

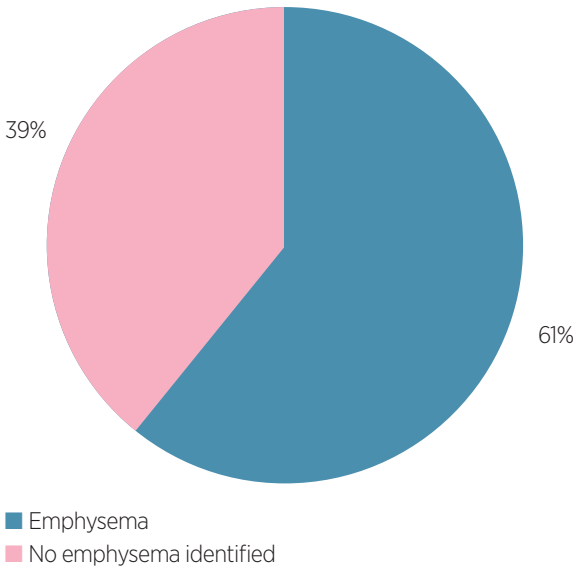
Following the UK NSC recommendation to introduce targeted lung cancer screening,[7] in September 2024, the Welsh Government concluded its LHC OP, which tested how Wales might adopt the UK NSC recommendation.[8]

The OP used LDCT scans to detect lung cancer. LDCT scans provide detailed images of the lungs, which can reveal abnormalities such as emphysema or airway thickening, both of which are indicative of COPD.[9] This is commonly referred to as incidental findings.

The LHC OP evaluation report showed that the majority of participants had signs of emphysema.

Among the 546 participants in the OP, 332 were identified as having emphysema.[8] The severity of emphysema in these participants were categorised as follows: 260 cases were mild, 56 cases were moderate, and 16 cases were severe.[8]

Emphysema found in Lung Health Check Operational Pilot Participants



NHS Wales. Figure7. Lung Health Check Operational Pilot for Wales: Evaluation Report 1.[8]

The evaluation report also gives some detail regarding those with a known diagnosis of COPD for those identified as having either mild or moderate emphysema during the OP.[8] Unfortunately, this information was not provided for those identified with mild COPD.

However, the evaluation report highlights that 52.7% of those with moderate or severe emphysema had a known diagnosis of COPD prior to the OP.[8] **However, 47.3% of these participants did not have a known diagnosis of COPD prior to the OP.[8]**

Despite nearly half of the participants being identified with moderate or severe emphysema, not having a confirmed diagnosis of COPD. The OP did not suggest further investigation or assessment for participants or primary care based on these findings.[8]

Implementing a lung cancer screening programme that explores these potential cases of COPD could significantly benefit individuals experiencing symptoms and reduce the burden on the NHS. This approach would allow a proportion of the estimated 54,000 individuals in Wales living with undiagnosed COPD to access appropriate treatment.[10]

The table below provides a full break down of these participants.

Emphysema Severity	Participants identified	Known COPD Diagnosis (Number)	Known COPD Diagnosis (Percentage)	No known COPD Diagnosis (Number)	No known COPD Diagnosis (Percentage)
Severe	16	10	62.5%	6	37.5%
Moderate	56	24	42.9%	32	57.1%
Total	72	34	52.7%	38	47.3%

NHS Wales. Lung Health Check Operational Pilot for Wales: Evaluation Report 1.[8]

Improving COPD Diagnosis & Care by Leveraging Lung Cancer Screening Programmes:

Both the National Institute for Health and Care Excellence (NICE) and the Global Initiative for Chronic Obstructive Lung Disease (GOLD) recommend utilising targeted Computed Tomography (CT) scanning to find cases of COPD.[15,16] NICE guidance states clinicians should consider primary care respiratory review and spirometry for people with emphysema or signs of chronic airways disease on a chest X-ray or CT scan.[15]

GOLD in their 2025 report states the following:
"There is currently a missed opportunity to perform spirometry in people at high risk of having COPD during lung cancer screening programmes or when incidental lung abnormalities are found on imaging that may indicate the presence of COPD. The use of spirometry in targeted patients undergoing lung cancer screening or when incidental imaging abnormalities are found consistent with parenchymal or airway manifestations of airways disorders is recommended by GOLD."[16]

Collaborations utilising lung cancer screening programmes: Chiesi has a strong track record of working with the NHS to utilise lung cancer screening programmes to support better diagnosis of COPD.

FRONTIER (Finding the hidden millions: restoration of early COPD diagnosis for Hull Lung Health Check participants to optimise treatment and improve outcomes): Since September 2023, Chiesi has collaborated with Hull University Teaching Hospitals NHS Trust to deliver the FRONTIER project. This two-year project builds on the previously named Targeted Lung Health Check Programme (TLHC) in England. FRONTIER aims to facilitate COPD diagnosis and the timely initiation of evidence-based interventions, including pharmacological and non-pharmacological interventions, to improve patient outcomes.[17]

Methodology: Participants of the Hull Lung Health Check scheme who were not diagnosed with lung cancer but identified as high-risk for COPD based on symptoms or imaging findings

are invited to a one-stop diagnostic clinic in a hospital.

This clinic includes symptom assessment and objective measurement of airflow limitation for all patients. Patients diagnosed with COPD in the clinic are immediately started on treatment and provided with a comprehensive care plan, which includes disease education and self-management.[17] This is done directly in the clinic, rather than referring them back to primary care.

Results: The latest findings (January 2025) show that 46.8% (383/819) of people who have attended the clinic have now been diagnosed with COPD (of which 37%, 142/383, had moderate or severe COPD) and have a treatment plan in place.[18]

Vision for the future: Chiesi is now collaborating with the NHS in The Wirral, delivering a project called COMET (COPD Targeted Management, Early Intervention and Treatment), which takes the FRONTIER findings and utilises the model using the region's existing Community Diagnostic processes rather than a bespoke hospital clinic.[19]

We will continue to publish findings and insights from these collaborations as they progress, as Chiesi believes that there is a real opportunity to significantly improve the outcomes for people living with undiagnosed COPD.

Developing a Pathway to Improved Outcomes for People Living with COPD:

Recognising the declining outcomes for individuals living with COPD, the Welsh Government must seize the opportunity presented by any future targeted lung cancer screening programme.

Such programmes can enhance the diagnosis and management of COPD, as both conditions share risk factors such as age and smoking and can be detected through LDCT scans.[9]

The Welsh Government should examine whether to ignore or explore incidental findings of COPD in developing a national lung cancer screening programme.

Addressing the Issues: Public Health Wales must assess the challenges highlighted in this proposal regarding the difficulties individuals with COPD encounter in obtaining a diagnosis and management.

While many NHS services are under pressure, it's crucial to view the challenges alongside the opportunities that lung cancer screening brings.

This policy proposal has demonstrated that integrating a fully funded incidental findings pathway for COPD into any national lung cancer screening programme could transform diagnosis and treatment in Wales.

Evidence-Based Interventions: The Welsh Government should prioritise evidence-based interventions, such as smoking cessation programmes, pharmacological treatments, and pulmonary rehabilitation, to improve patient outcomes.

Patient Education: Any proposed pathway should incorporate patient education to raise awareness and encourage early diagnosis and adherence to treatment plans.

Conclusion: Immediate action is essential to improve respiratory outcomes in Wales. Any national lung cancer screening programme offers a strategic opportunity to transform the diagnosis and care of COPD, potentially benefiting the estimated 54,000 individuals in Wales living with undiagnosed COPD, while alleviating pressure on the NHS.

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