**Population health case studies (13)**

**Increasing early diagnosis in the Lung Cancer Screening Programme**

**What was the issue we were trying to resolve/why was it needed?**

**Issue/Aim:** to increase the proportion of people diagnosed with early-stage lung cancer (stage 1 and 2) improving both life expectancy and quality of life.

**Rational:**  **34%** of people in the UK are diagnosed with early-stage lung cancer, this has increased from 30.5% in 2021 which coincides with the launch of the national lung cancer screening programme. *(National Lung Cancer Audit 2024)*; in Lancs and South Cumbria (LSC) it is **28%.** Lung cancer is the biggest cancer killer across all individual districts except for Lancaster, where it comes second to prostate cancer. In 2014, approximately a third of patients across Lancashire and South Cumbria who were diagnosed with lung cancer survived one year post diagnosis. *(Lancashire and South Cumbria Cancer Prevention Profile 27/10/17).*

Over 6 in 10 people will survive lung cancer for >5 years when diagnosed at stage 1, this drops to < 1 in 10 when the diagnosis is at stage 4 (*Cancer Research UK)*

Since the programme launch in 2019 and up to March 2025, 7193 **lung** cancers have been diagnosed nationally through the Lung Cancer Screening Programme, **75%** at early stages. (63% Stage 1 and 12% stage2)

In the 12 months to February 2025, there were 1,533 people diagnosed with lung cancer in Lancashire and South Cumbria. Of those, 34% were in the most deprived IMD quintile and 54% in the bottom two most deprived IMD quintiles. Therefore, the lung screening programme targets some of our most deprived communities and improves outcomes through earlier diagnosis.

**Who was it aimed at?**

People between 55 and 74 who have smoked at least 100 cigarettes, or the equivalent over their lifetime.

**Summary of the project**

People who fall into the above category are identified from their GP record and invited to take part in the Lung Cancer Screening Programme.

A telephone assessment is carried out by a respiratory nurse using an algorithm-based risk tool to calculate the likelihood of the participant developing cancer over a 5year period. People who are deemed to be high risk are offered a low dose CT scan. CT scans are carried out on mobile units in accessible community locations with good proximity to local transport networks and with ample parking. Participants whose scan shows something that needs further investigation are referred into the local trust, those with a clear CT will be invited for follow up scanning every 2 years until they are 75. The ICB receives targeted funding from the national cancer team to finance programme.

**Who was involved – partnership approach for example?**

Cancer Alliance, PCNs/CCGs, ICB, Trusts, General Practice, two private companies, we are also working with Preston North End, Roy Castle Lung Foundation, Smokefree Lancashire and Preston City Council.

**When did it start/finish (is it ongoing)?**

It began in 2020 and is ongoing.

**What area was/is it delivered in?**

The programme is active in Blackburn with Darwen, East Lancashire, Blackpool, and Fylde and Wyre. The Preston population will benefit from the scheme from August 2025.

**How did the team go about delivering it?**

After a lengthy consultation with both secondary and primary care colleagues it was decided that the most effective way to deliver the programme was to commission an end-to-end service via a third-party delivery partner. The decision was based on lack of capacity locally particularly in relation to respiratory nurses, radiographers, reporting radiologists and CT capacity.

**What were the main outcomes/impacts for people?**

This programme has contributed to an improvement in our overall rate of early diagnosis for patients with lung cancer. This has improved from 28% of lung cancers diagnosed at early stage in 2023 to 41% diagnosed at early stage (February 2025 data). The Lung Cancer Screening Programme in LSC has diagnosed 322 lung cancers between August 2021 and April 2025 of which 242 where stages 1 and 2, which equates to 73%. Between April 2024 and March 2025 uptake for the programme increased to 55%; 113 lung cancers were diagnosed of which 94 where stages 1 and 2, which equates to 83%. Both these figures are above the national averages for the programme.

**Are there any comments/statements from people it helped?**

No.