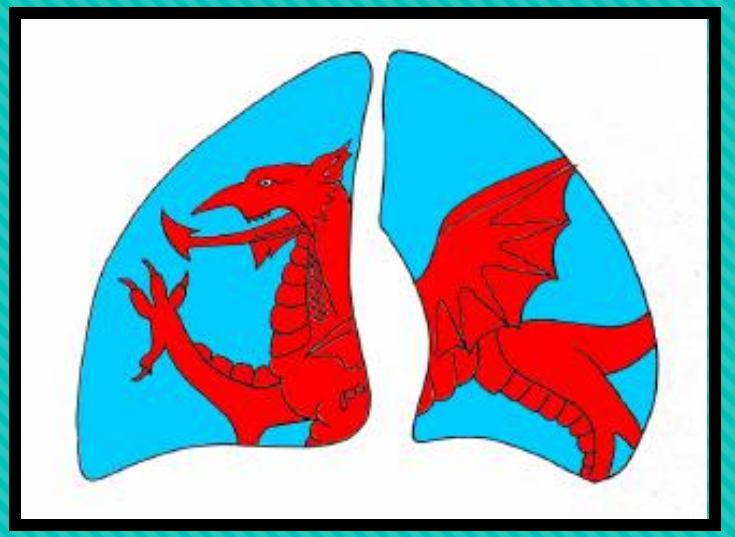
# Lung Cancer Screening in Wales



## Respiratory Matters Webinar
13th May 2026

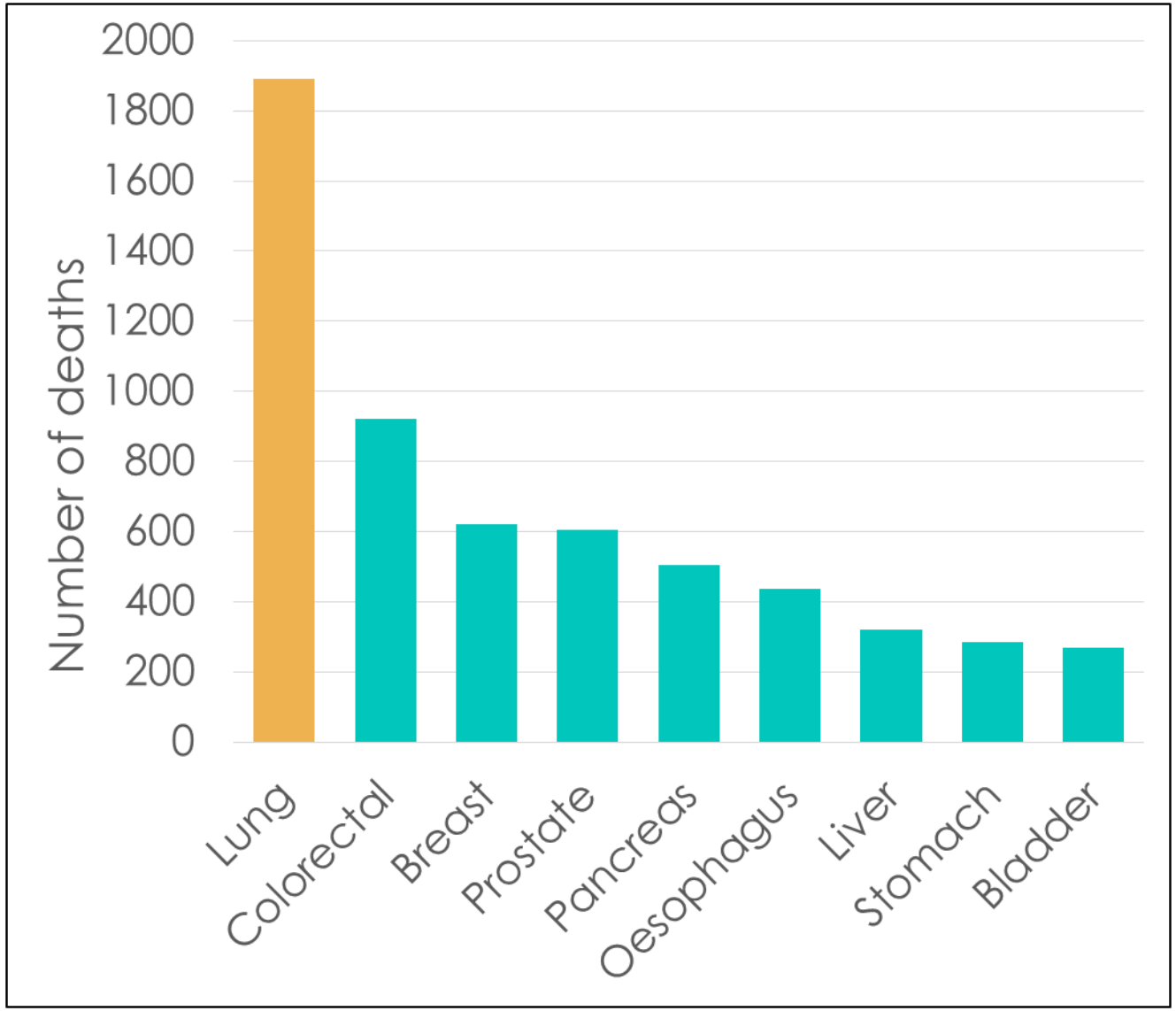

**Dr Sinan Eccles**

Respiratory Clinical Lead for Lung Cancer Screening Implementation Programme, Public Health Wales

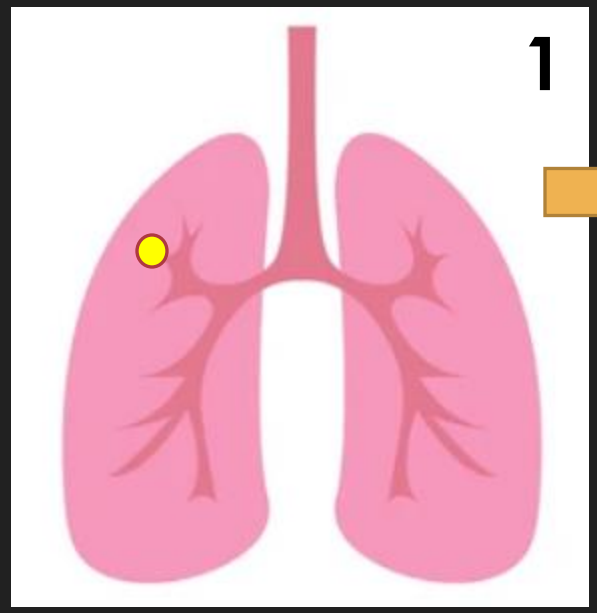
Consultant Respiratory Physician, Cwm Taf Morgannwg UHB

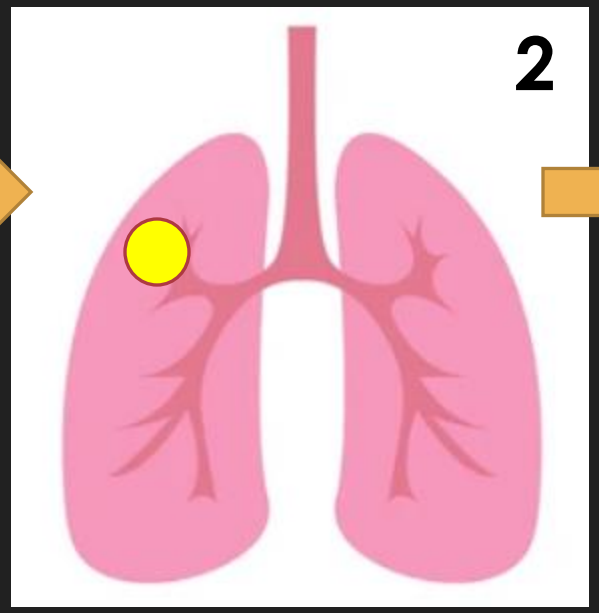
# Overview

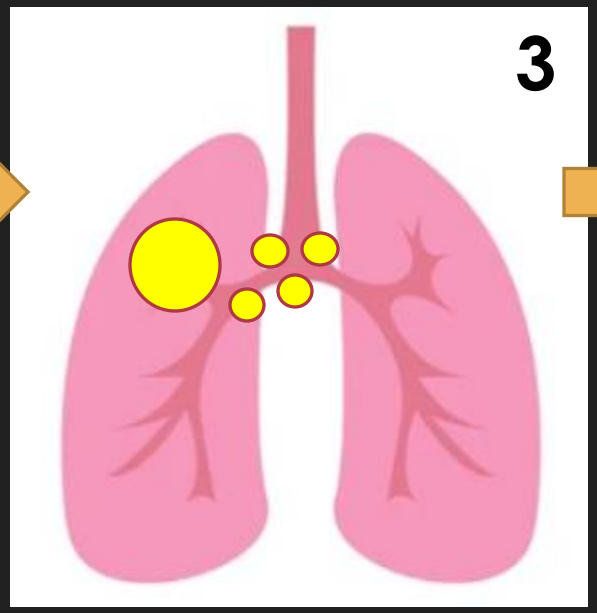
- Lung cancer in Wales
- Evidence for screening
- Operational Pilot
- National programme development
- Incidental findings

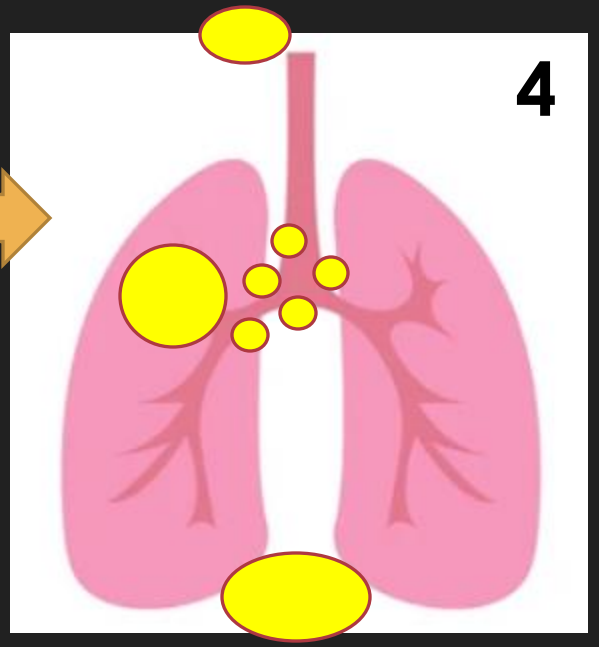



# Cancer Deaths in Wales




Early-stage

Localised to the lung

Rarely causes symptoms

Usually curable

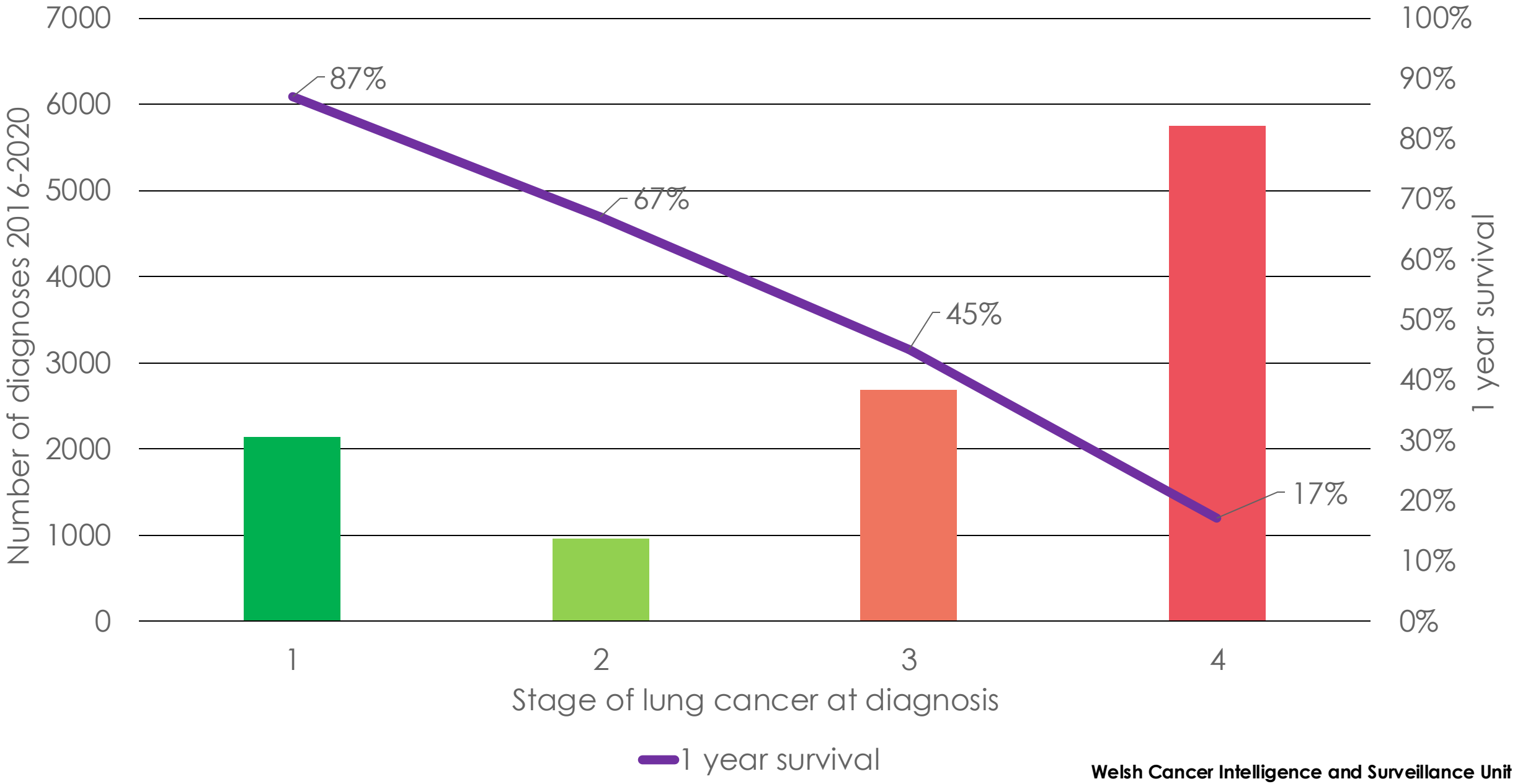
Late-stage

Spread beyond the lung

Various symptoms

Rarely curable

# Lung Cancer stage and survival in Wales



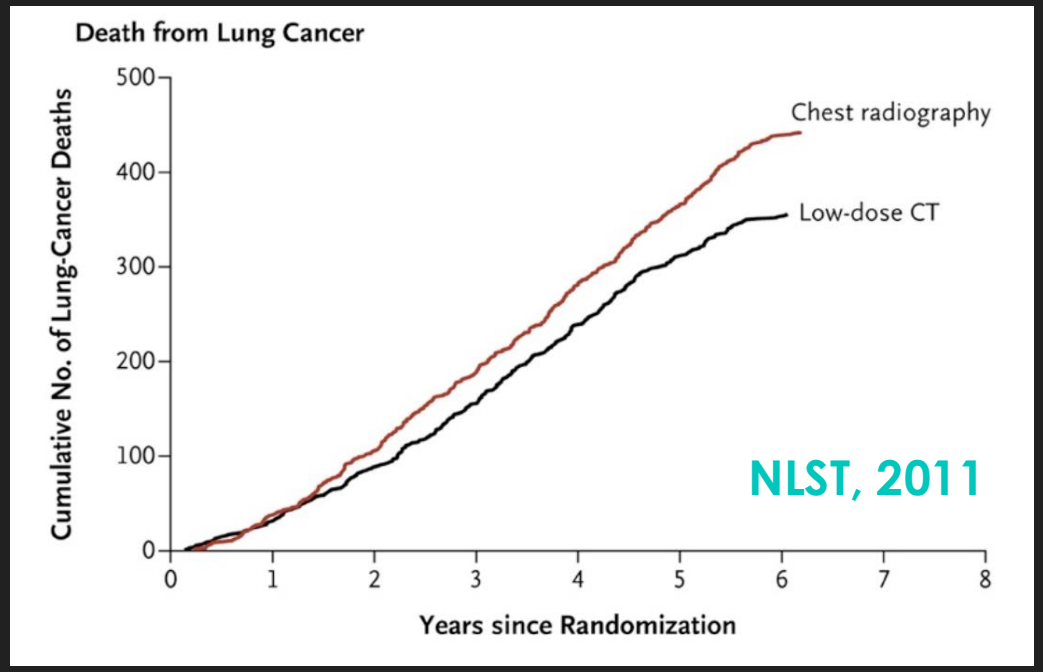

Welsh Cancer Intelligence and Surveillance Unit

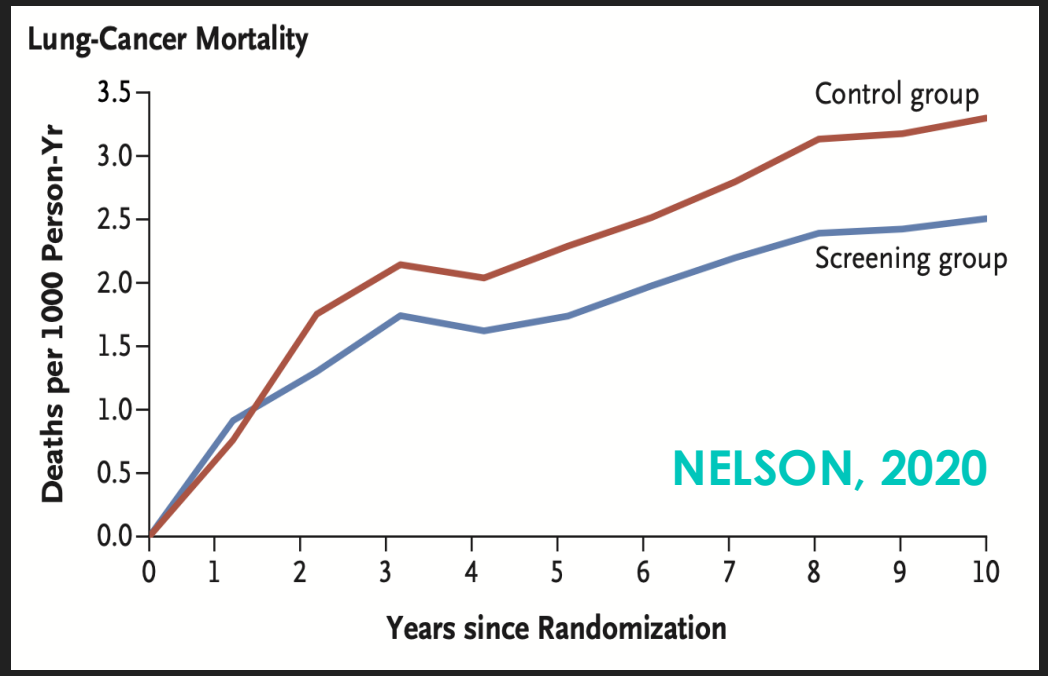
# Wilson and Jungner's principles of screening

***World Health Organization - 1968***

***"In theory, screening is an admirable method of combating disease… but in practice, there are snags"***

1. The condition sought should be an **important health problem**.
2. The **natural history** of the condition, including development from latent to declared disease, should be adequately understood.
3. There should be a recognizable **latent or early symptomatic stage**.
4. There should be a **suitable test** or examination.
5. The **test should be acceptable** to the population.
6. There should be an agreed policy on **whom to treat** as patients.
7. There should be an **accepted treatment** for patients with recognized disease.
8. **Facilities for diagnosis and treatment** should be available.
9. The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be **economically balanced** in relation to possible expenditure on medical care as a whole.
10. Case-finding should be a **continuing process** and not a "once and for all" project.


Death from Lung Cancer
Cumulative No. of Lung-Cancer Deaths
500
400
300
200
100
0
Chest radiography
Low-dose CT
NLST, 2011
0
1
2
3
4
5
6
7
8
Years since Randomization


Lung-Cancer Mortality
Deaths per 1000 Person-Yr
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Control group
Screening group
NELSON, 2020
0
1
2
3
4
5
6
7
8
9
10
Years since Randomization

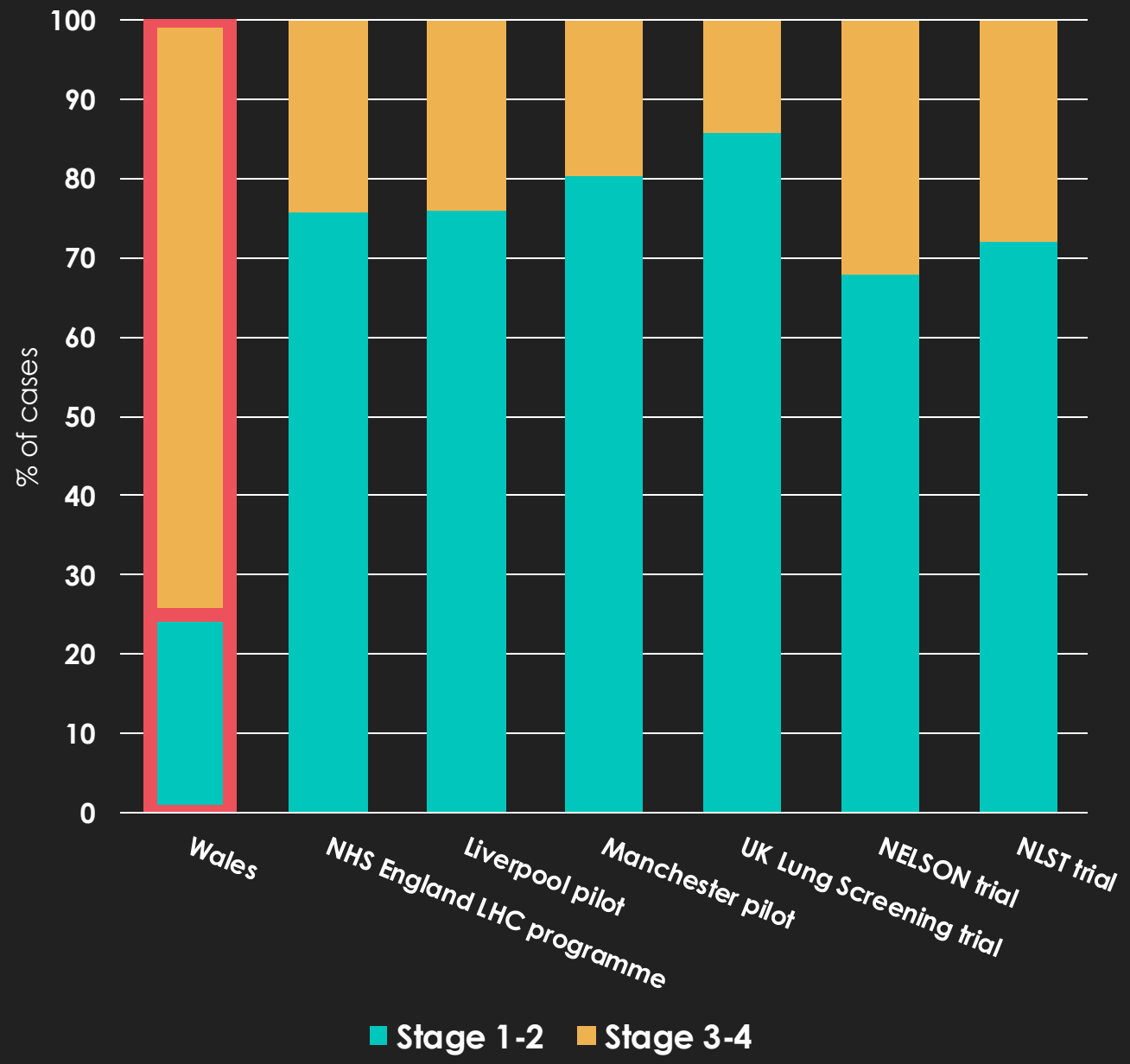

Stage-shift with lung cancer screening
% of cases
100
90
80
70
60
50
40
30
20
10
0
Wales
NHS England LHC programme
Liverpool pilot
Manchester pilot
UK Lung Screening trial
NELSON trial
NLST trial
Stage 1-2
Stage 3-4

Table 16 Base case cost-effectiveness of strategies on the cost-effectiveness frontier (per ever-smoker 55-80 years)

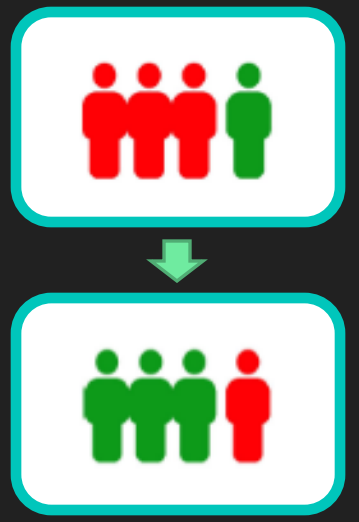
| Strategy (ranked by ascending cost) | Costs (£) | QALYs | ICER vs No screening (£) | Incr. Costs vs next least costly (£) | Incr. QALYs vs next least costly | Full ICER (£) |
|---|---|---|---|---|---|---|
| No screening | £3,463 | 8.511 | - | - | - | - |
| S-55-75-4% | £3,479 | 8.522 | £1,529 | £17 | 0.011 | £1,529 |
| T-55-75-4% | £3,494 | 8.526 | £2,179 | £14 | 0.003 | £4,313 |
| A-55-75-3% | £3,550 | 8.537 | £3,336 | £56 | 0.012 | £4,722 |
| A-55-80-3% | £3,588 | 8.540 | £4,385 | £39 | 0.003 | £14,984 |

ICER, incremental cost-effectiveness ratio; QALYs, quality-adjusted life year

# Lung Cancer Screening

Identify people at **high risk of lung cancer**

Low-dose **CT screening scan**



**Reduces lung cancer deaths by 25%**

**Promotes smoking cessation**

**Highly cost-effective**

GOV.UK

UK National Screening Committee

**Screening for this condition is recommended.**

The UK National Screening Committee (UK NSC) advises ministers and the NHS in the 4 UK countries about all aspects of screening and supports implementation of screening programmes.

Targeted screening for lung cancer is **recommended** for people aged 55 to 74 identified as being at high risk of lung cancer.

NOW

2020 2022 2024 2026 2028 2030

Scoping

Operational Pilot

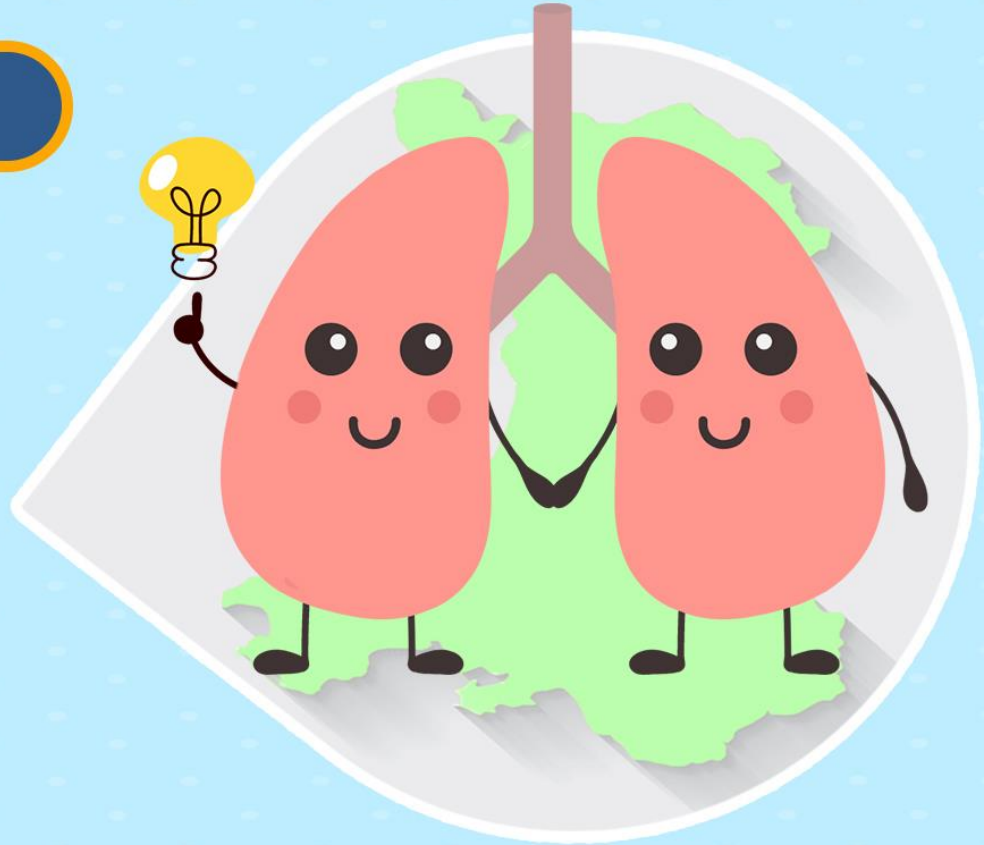
National Planning

GOV.UK
UK National Screening Committee

Lung cancer

Screening for this condition is recommended.

# NHS Lung Health Check



Patients from **Llywynypia Surgery** who smoke or have smoked in the past and who are aged 60-74 will soon be invited for a NHS Lung Health Check.

To find out more ask your GP or visit
https://ctmuhb.nhs.wales/services/lung-health-**checks/**

GIG CYMRU NHS WALES
Gwiriad Iechyd yr Ysgyfaint
Bwrdd Iechyd Prifysgol
Cwm Taf Morgannwg
University Health Board
Lung Health Check

GIG CYMRU NHS WALES
Rhwydwaith Canser Cymru
Wales Cancer Network

# Wales "Lung Health Check" Pilot

## Objectives

**Advance learning to support and de-risk future roll-out**

**Develop core team as a nucleus for national roll-out**

**Immediate health benefits to pilot cohort**

## Funding

Bristol Myers Squibb

Roche

NOVARTIS

MSD

tenovus cancer care gofal canser

MOONDANCE CANCER INITIATIVE

## Location

**North Rhondda**

High lung cancer and smoking prevalence

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Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

GIG CYMRU NHS WALES
Rhwydwaith Canser Cymru Wales Cancer Network

## Delivery

**60-74, ever-smoker**

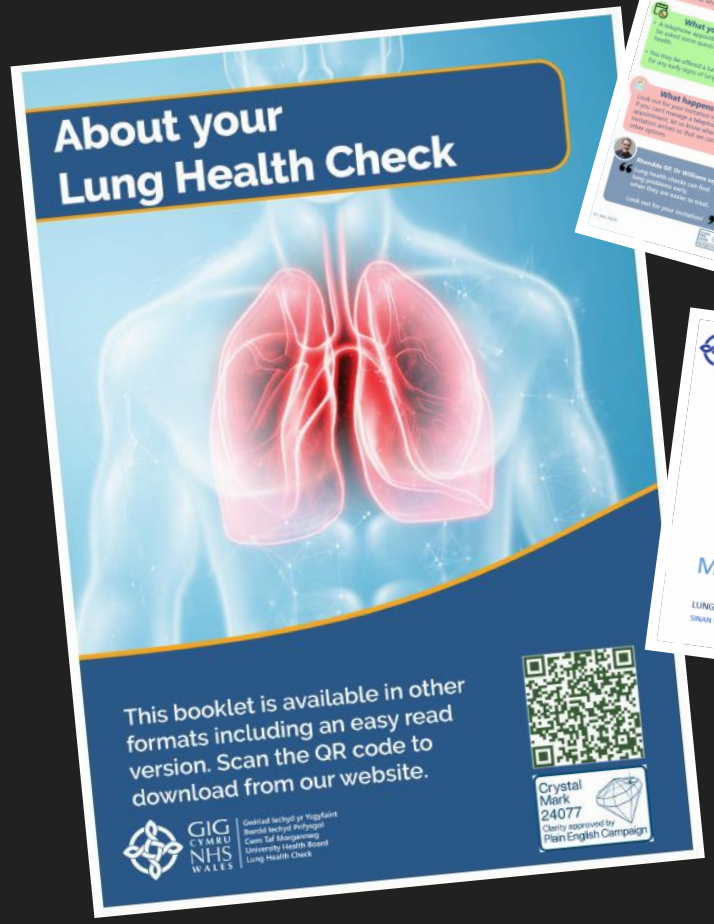
**Telephone assessment**

HELPA FI I STOPIO – HELP ME QUIT

**~500 baseline LDCTs**

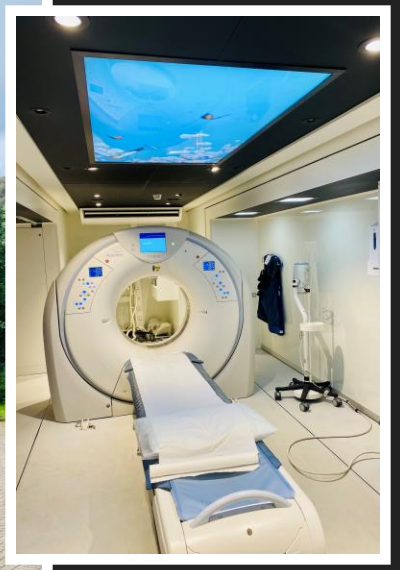
INHEALTH

Heart&Lung
HeartLungHealth.com

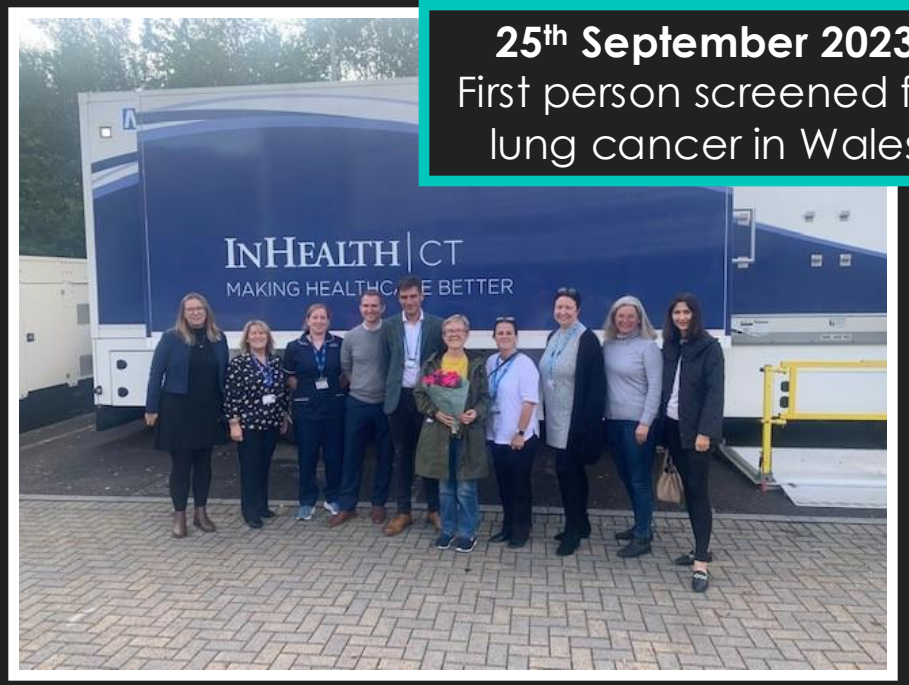


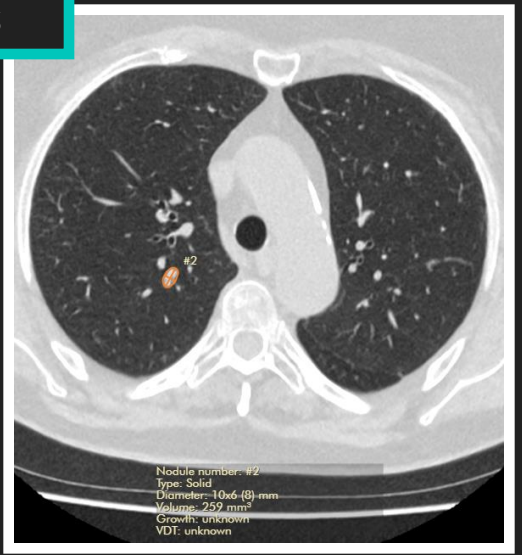






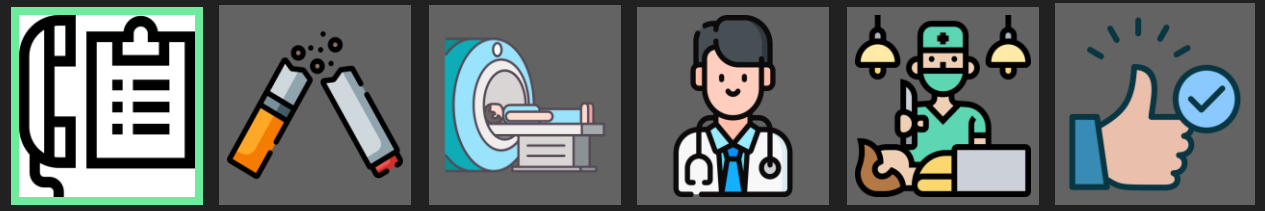
**25th September 2023**
First person screened for lung cancer in Wales

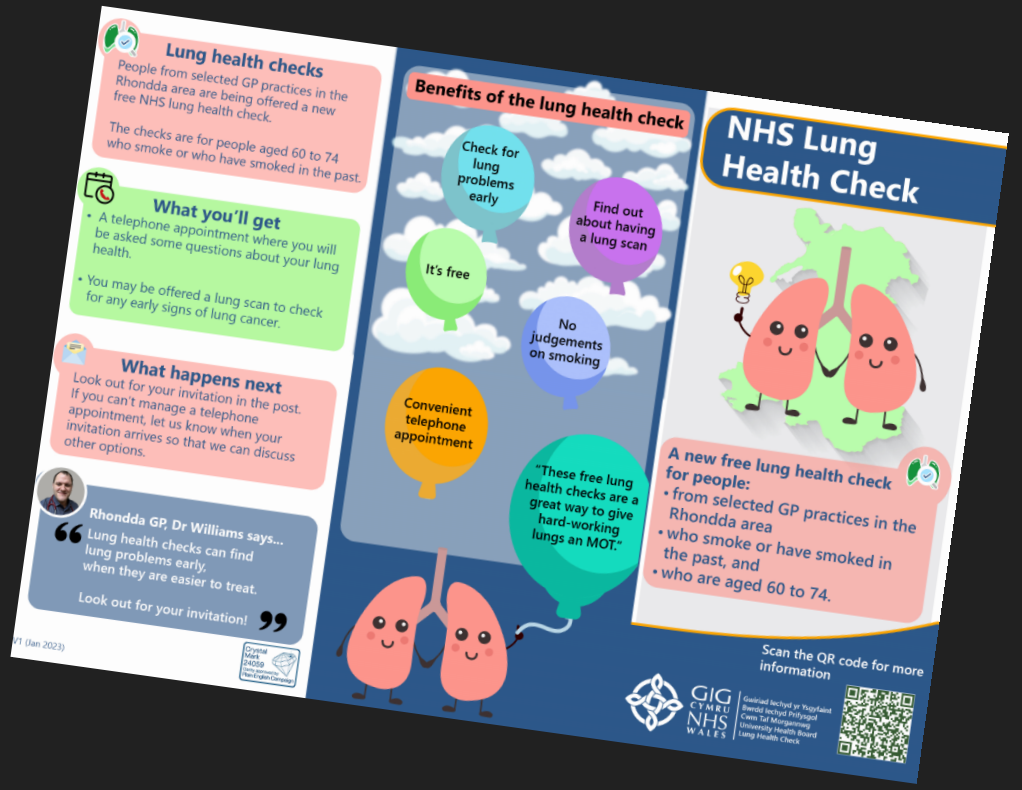


# Lung Health Check pilot: **Phil's story**

GIG CYMRU NHS WALES
Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board





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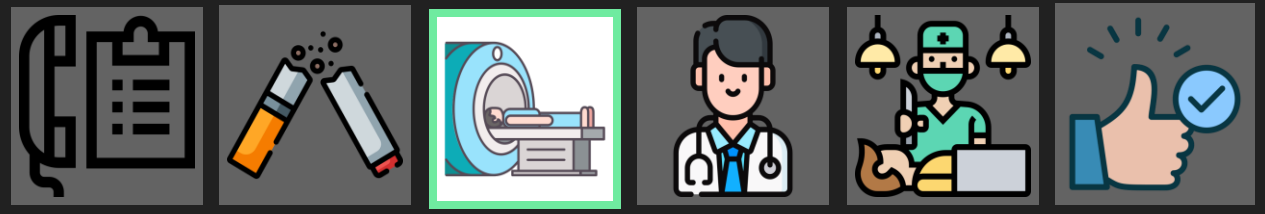


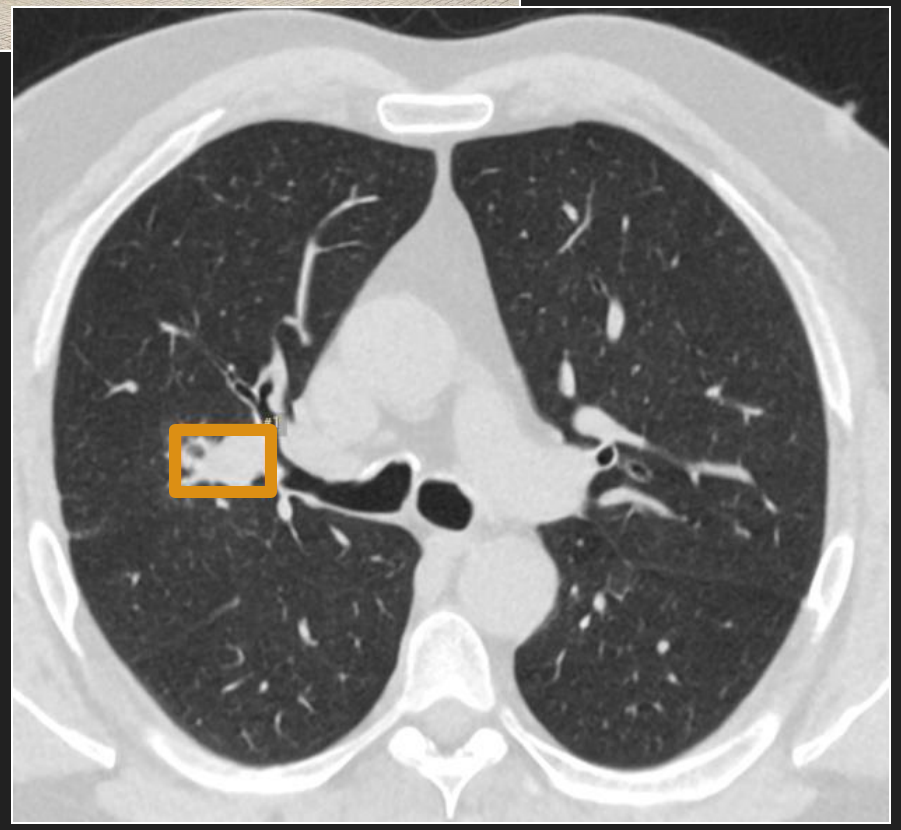

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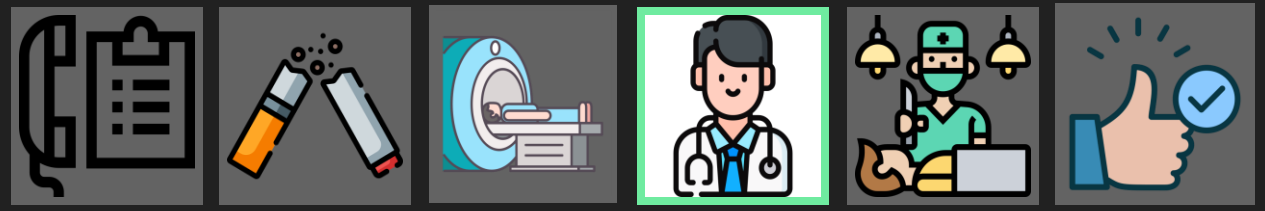
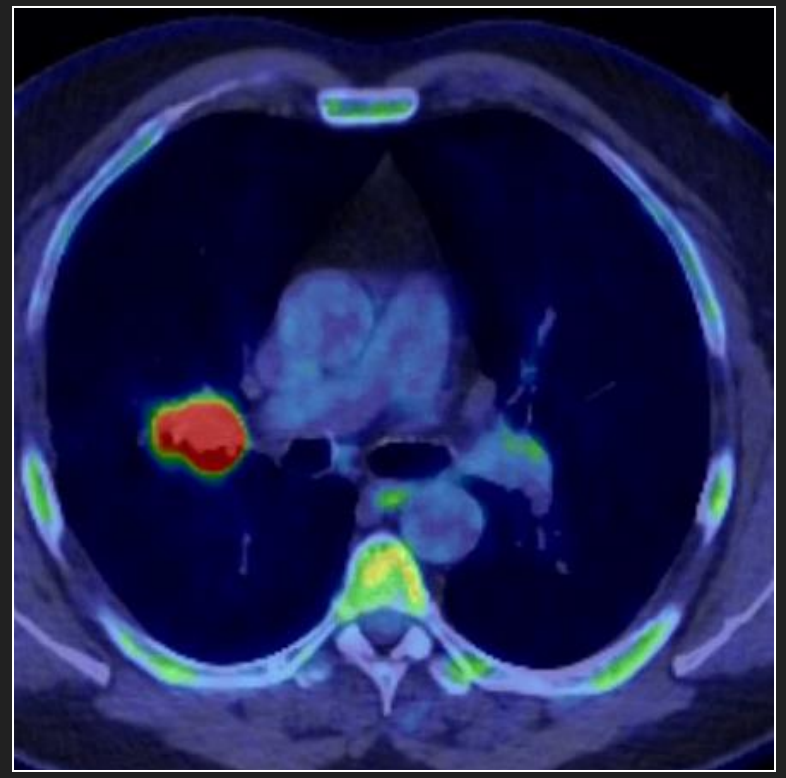
University Health Board






# **VATS lobectomy**
December 2023

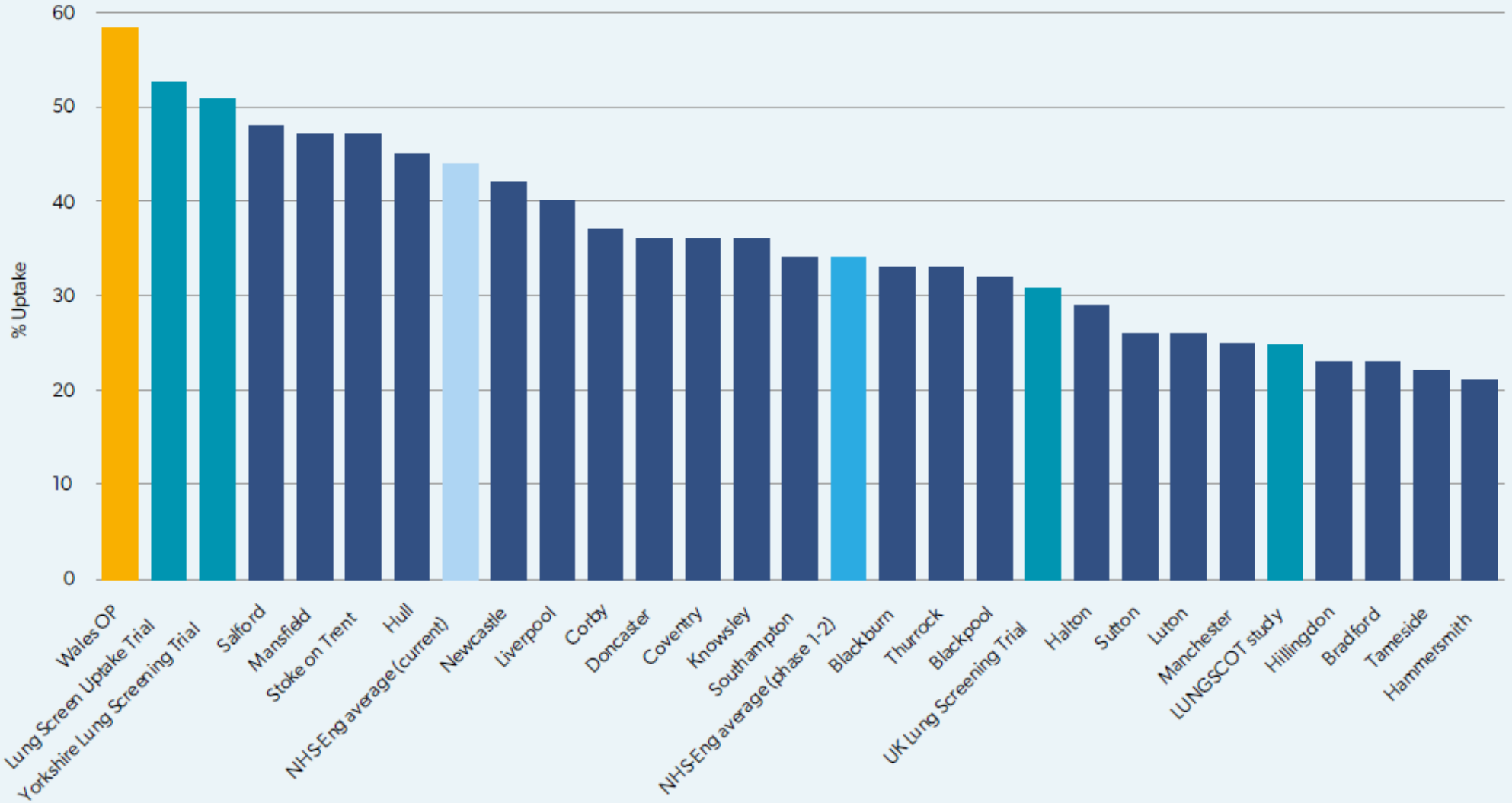

**Curative treatment**
for lung cancer

Has **quit smoking**

Taking a statin for
**coronary artery calcification**

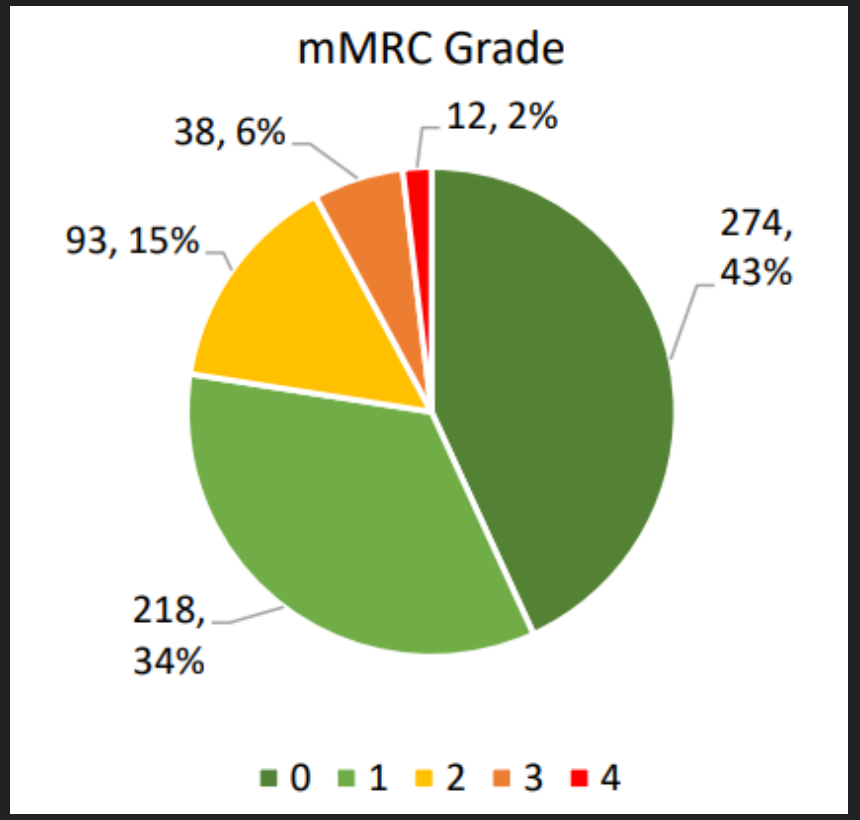
Under **surveillance**

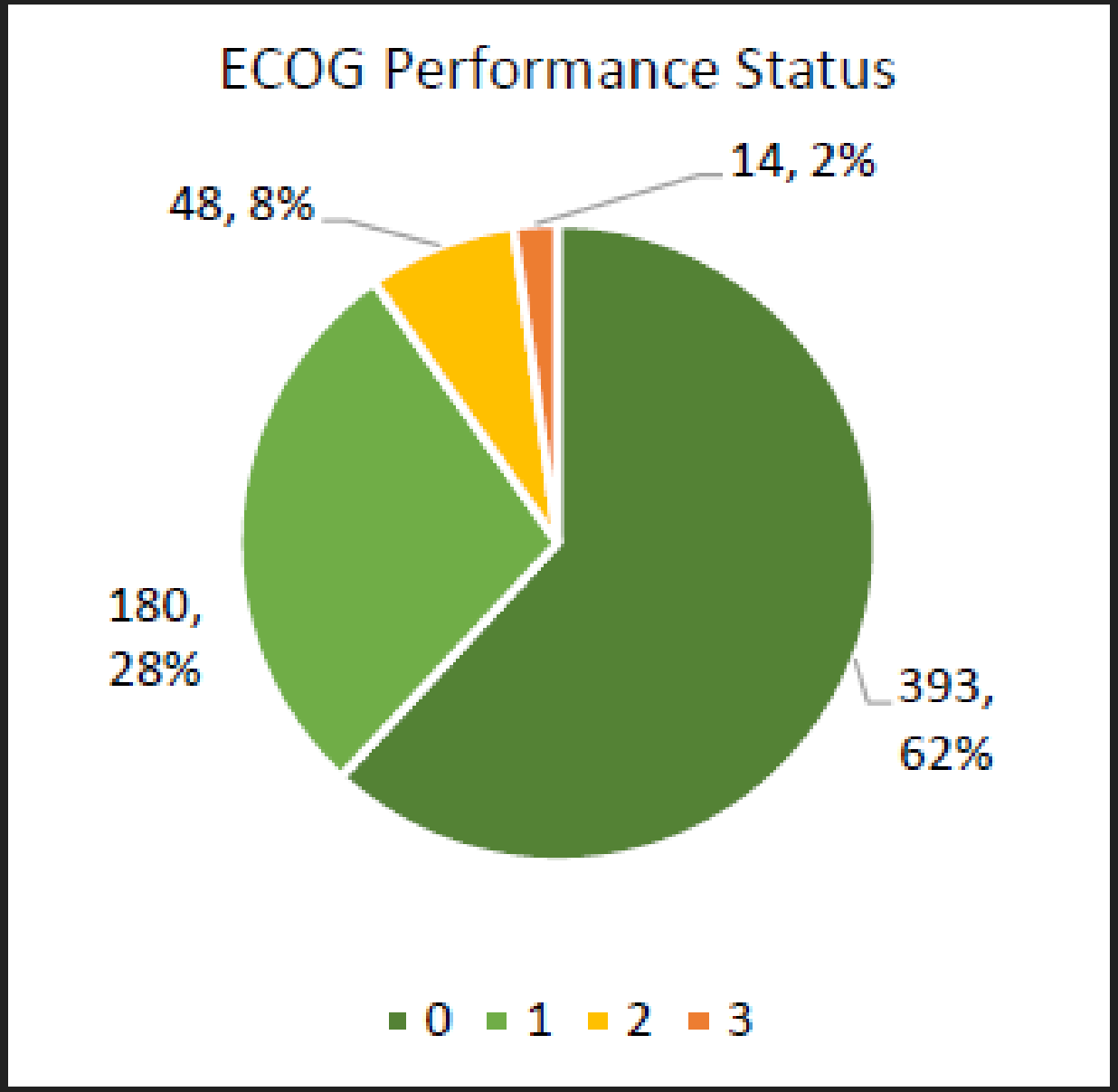
# Uptake of Pilot compared to other UK Lung Health Check activities

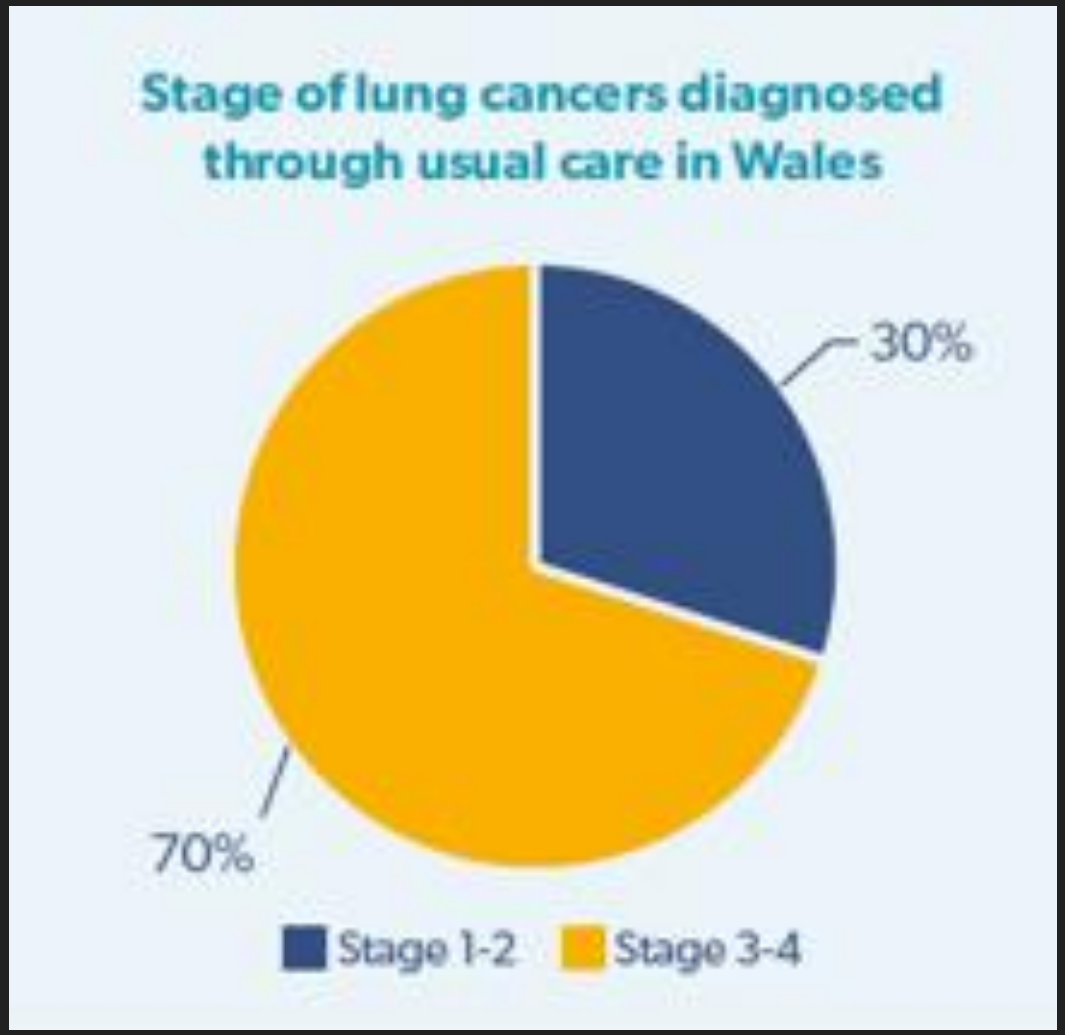


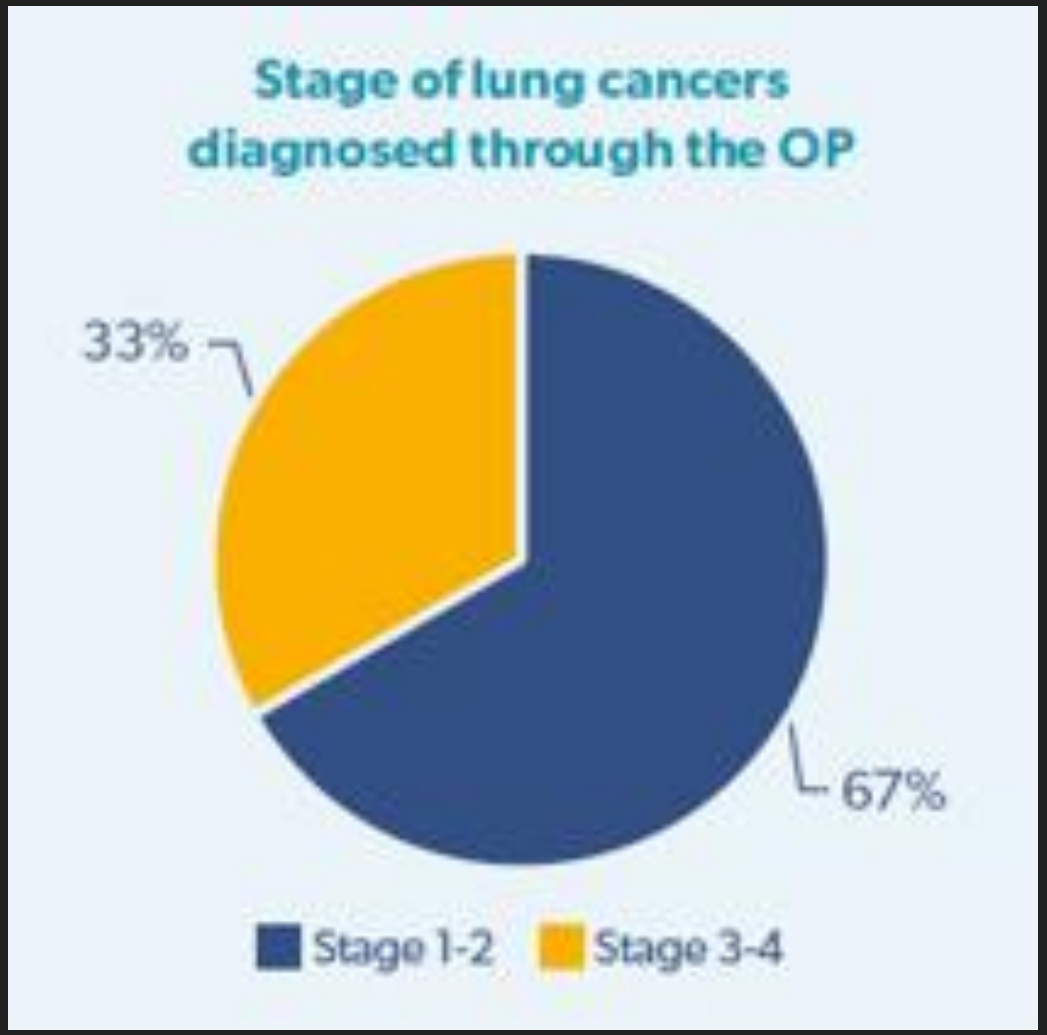
27.5% **current smokers**

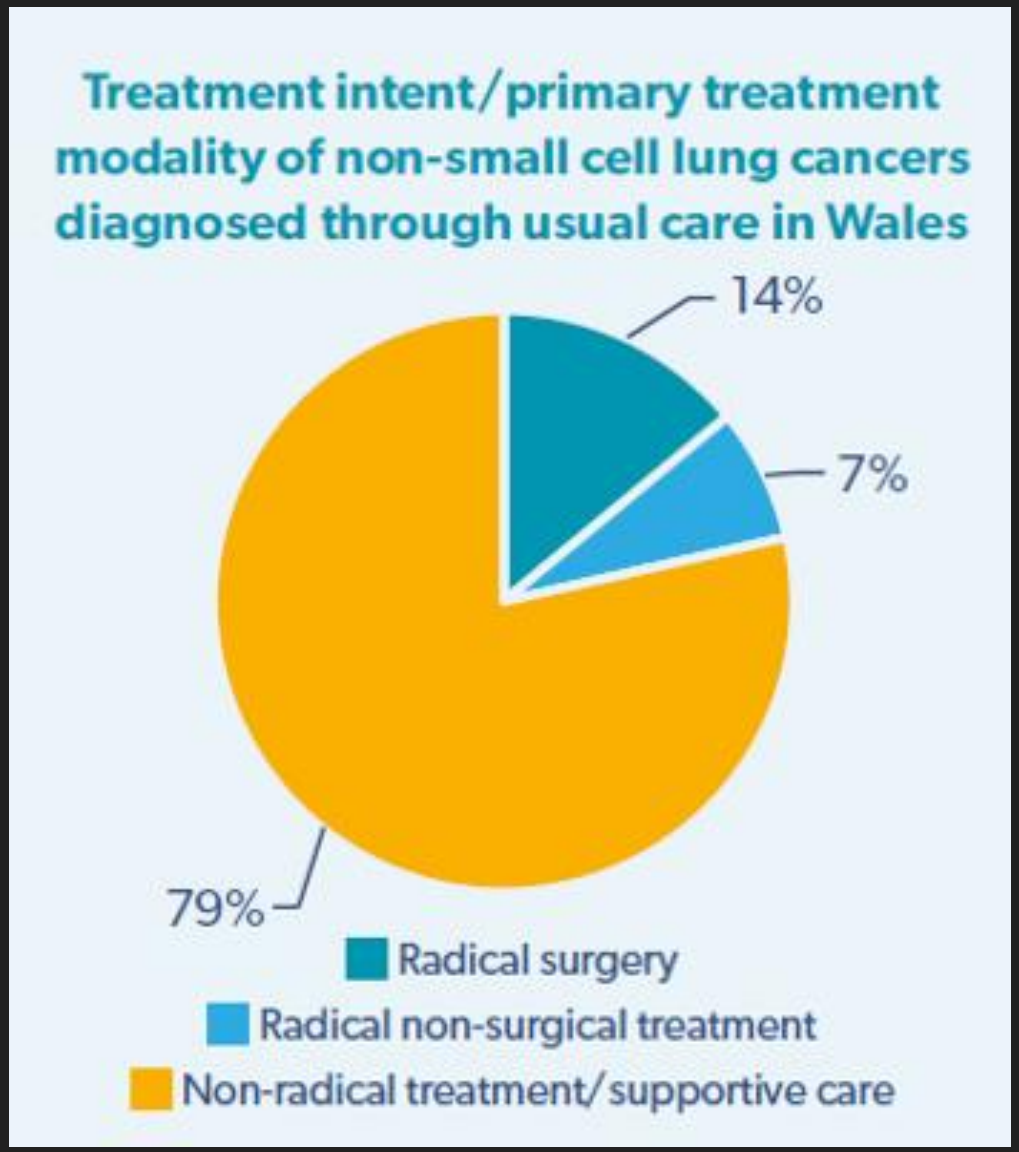
26.3 **pack-years** average

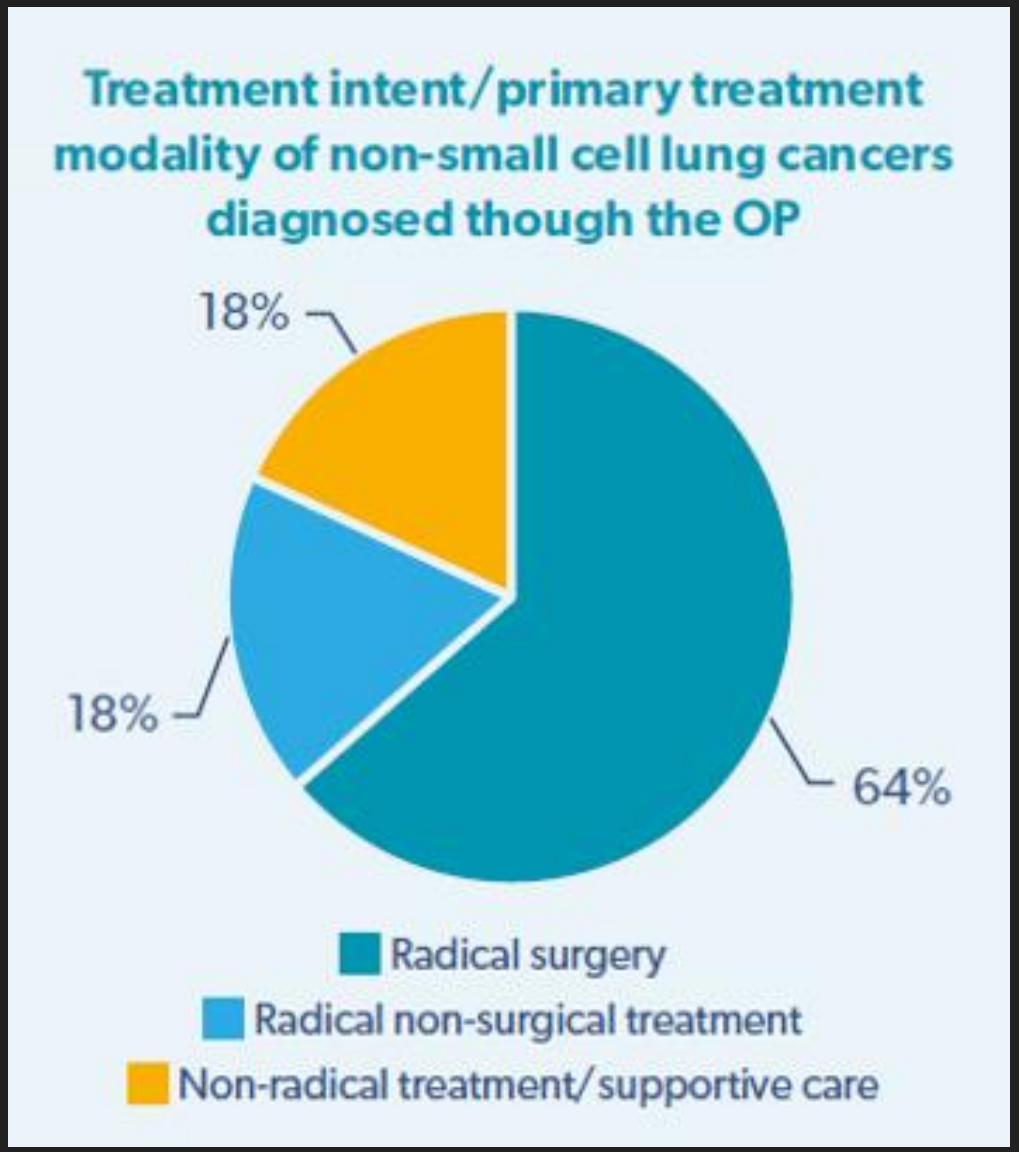



Stage of lung cancers diagnosed through usual care in Wales
30%
70%
Stage 1-2
Stage 3-4


Stage of lung cancers diagnosed through the OP
33%
67%
Stage 1-2
Stage 3-4


Treatment intent/primary treatment modality of non-small cell lung cancers diagnosed through usual care in Wales
14%
7%
79%
Radical surgery
Radical non-surgical treatment
Non-radical treatment/supportive care


Treatment intent/primary treatment modality of non-small cell lung cancers diagnosed though the OP
18%
18%
64%
Radical surgery
Radical non-surgical treatment
Non-radical treatment/supportive care

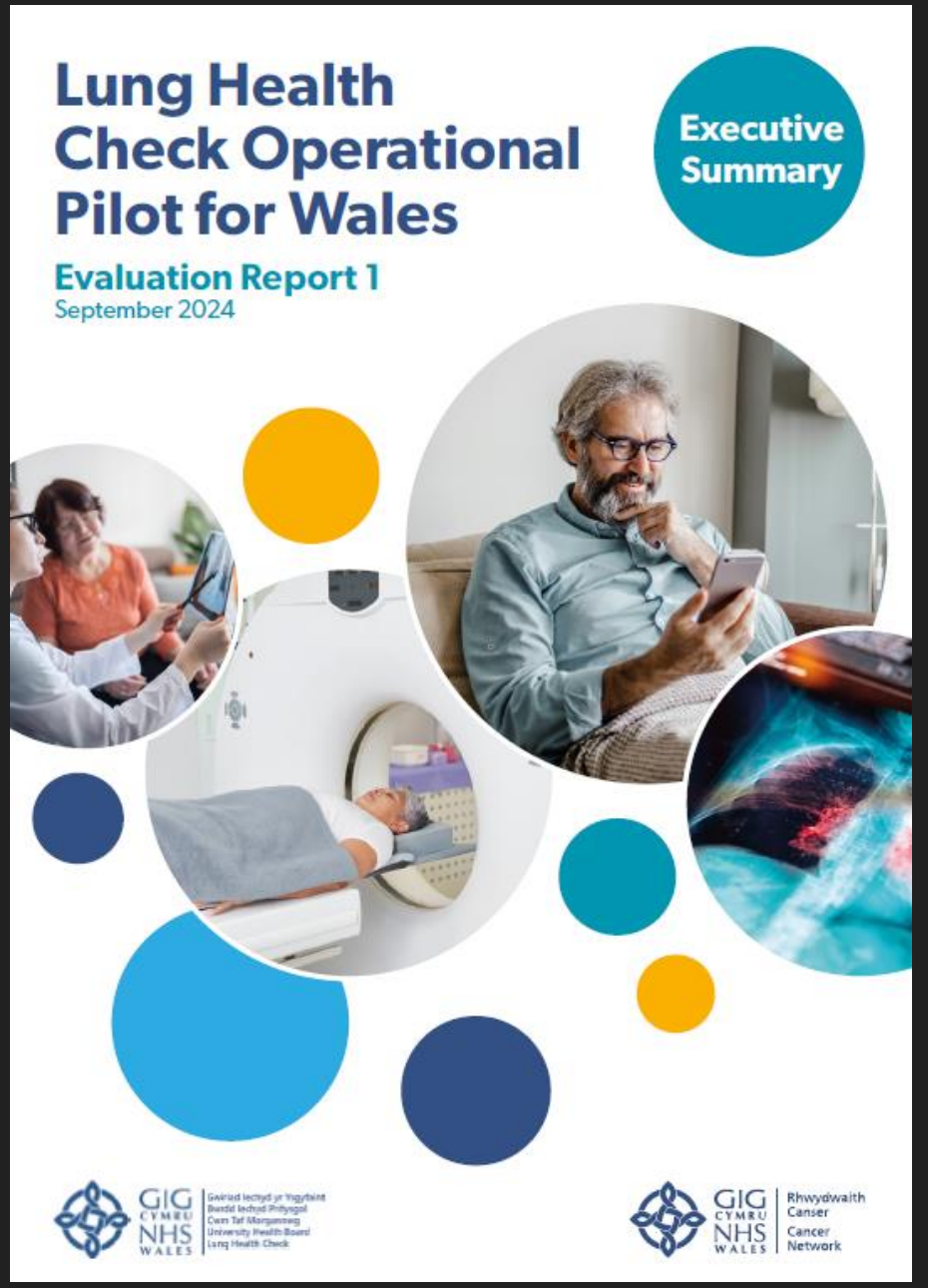
| System | Finding | Actionable rate | Total | Actionable | Non-actionable following SRM discussion |
|---|---|---|---|---|---|
| **Respiratory** | Interstitial lung disease (ILD) | 0.4% | 4 | 2: Referred to Respiratory | 2: Known finding |
| | Inflammatory changes | 0.2% | 6 | 1: Clinical review | 3: Clinical judgement<br>2: Known finding |
| | Pleural | 0.5% | 3 | 3: Referred to Respiratory | 0 |
| | Bronchiectasis | 0.2% | 2 | 1: Referred to Respiratory | 1: Known finding |
| | Mediastinal lesion | 0.0% | 1 | 0 | 1: Clinical judgement |

| Malignancy type | Status | Treatment |
|---|---|---|
| Breast cancer | 1 confirmed | 1 surgery & systemic therapy |
| Mesothelioma | 1 confirmed | 1 immunotherapy |
| Renal cell carcinoma | 1 confirmed | 1 surgery & immunotherapy |
| | 2 highly suspected | 1 surgery planned |
| | | 1 offered surgery, opted for surveillance |

| KPI | Result | |
|---|---|---|
| Uptake | 58.3% | >50% |
| Baseline scans | 547 | >500 |
| Lung cancer detection rate | 2.2% | >1% |
| Number needed to scan per lung cancer | 46 | <100 |
| False-positive rate | 0.2% | <2% |
| Invasive procedures for false-positives | 0% | <2% |
| Lung nodule requiring recall scan | 17.6% | <20% |
| Actionable incidental finding rate | 7.3% | <10% |

## The Pilot **provides assurance** that:

- Lung cancer screening **can be delivered effectively** within the Welsh healthcare system
- Lung cancer screening is likely to **yield benefits** in Wales as seen elsewhere
- A lung cancer screening programme would significantly **improve lung cancer outcomes** in Wales



NOW

2020 2022 2024 2026 2028 2030

Scoping

Operational Pilot

National Planning

GOV.UK
UK National Screening Committee

Lung cancer

Screening for this condition is recommended.

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

# Introducing a targeted lung cancer screening programme in Wales

## Public Health Wales

March 2025

Senior Responsible Officer: Heather Lewis
Programme Manager: Chris Coslett
Respiratory Clinical Lead: Dr Sinan Eccles
Radiology Clinical Lead: Dr Timothy Pearce



CABINET STATEMENT

# Written Statement: A National Lung Screening Programme for Wales

**Jeremy Miles MS, Cabinet Secretary for Health and Social Care**

First published: 28 June 2025

Last updated: 28 June 2025



I am pleased to announce the Welsh Government will introduce a national lung cancer screening programme in Wales, targeted towards those at greatest risk of the disease.

NOW

2020 2022 2024 2026 2028 2030

Scoping

Operational Pilot

National Planning

Preparation

Live programme

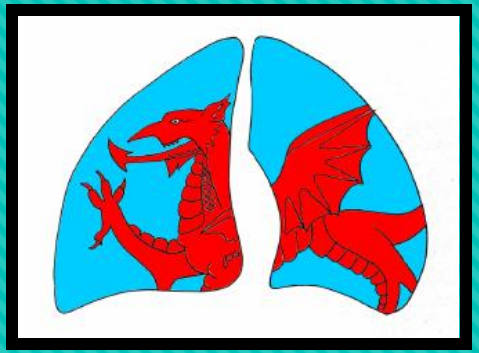
GOV.UK
UK National Screening Committee

Lung cancer

Screening for this condition is recommended.

Llywodraeth Cymru
Welsh Government

# Key elements of planned programme in Wales



- **"Lung Screening Wales"**
- Phased **roll-out by age** starting at upper end of 55-74yos
- Procure single **all-Wales Screening Administration System** (PAS) to underpin programme
- Centrally delivered **telephone-based risk assessment**
- Multi-variable lung cancer risk assessment – **PLCOm2012 + LLPv2**
- New specific CT capacity for screening – **mobile scanners**
- Pooled all-Wales CT reporting with **single queue**
- Establish **Screening Review Meetings** in each Health Board
- Standard **2-year interval**, in-programme lung nodule surveillance
- Enhanced NHS Wales **Help Me Quit** offer for current smokers

**Meng Khaw**
Senior Responsible Officer
(PHW Exec Medical Director)

**Heather Lewis**
Programme Director
(Public Health Consultant)

**Chris Coslett**
Head of programme

**Sinan Eccles**
Respiratory Clinical Lead

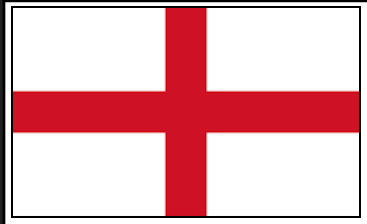
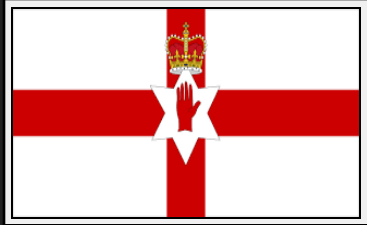
**Tim Pearce**
Radiology Clinical Lead

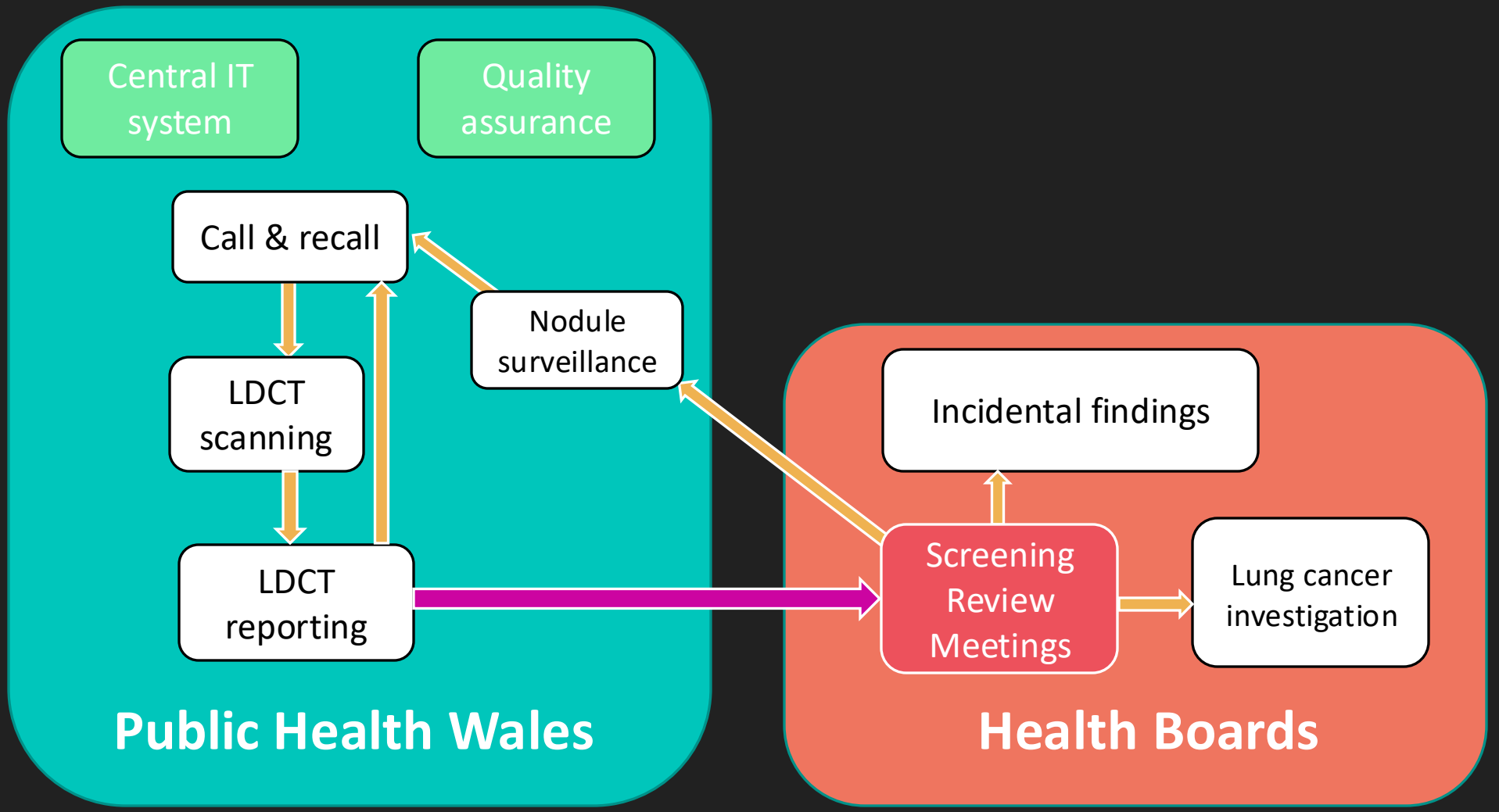
**Claire Hammond-Bowers**
Lead Radiographer

**Sarah Maclean**
Lead Nurse

- Welsh Government
- Health Boards
- Primary care
- Industry
- Third Sector
- Joint Commissioning Committee

- Quality & Improvement
- Comms & Engagement
- Estates, Health & Safety
- People & Organisational Development
- Smoking cessation
- Legal
- Project management
- Digital
- Strategy, Planning & Corporate Affairs
- Operations
- Finance
- Procurement
- Information Governance

| | Scoping | Pilot(s) | National | | Roll-out | |
|---|---|---|---|---|---|---|
| | | | Planning | Preparation | | |
|  | | 2011- | | 2019 | 2019 | 2030? |
|  | 2019-20 | 2023-25 | 2024-25 | 2025-28 | 2028 | 2034 |
|  | | 2013- | 2024- | | ? | ? |
|  | | | | | | |


Central IT system
Quality assurance
Call & recall
Nodule surveillance
LDCT scanning
LDCT reporting
Public Health Wales
Incidental findings
Screening Review Meetings
Lung cancer investigation
Health Boards

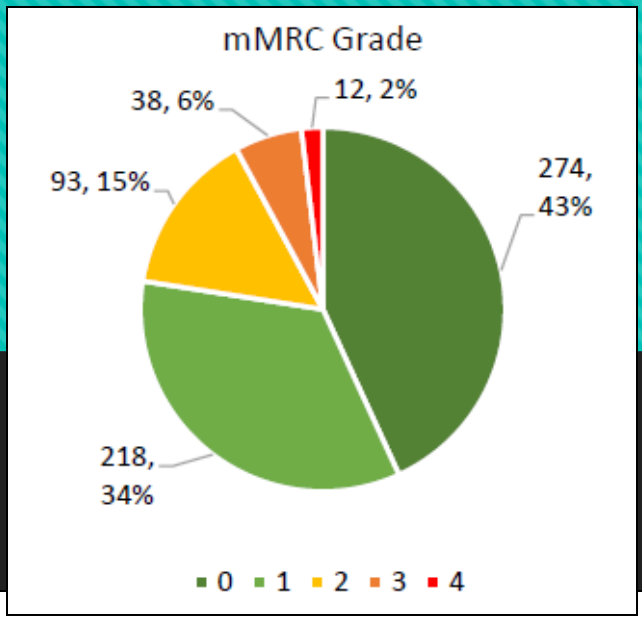
# Incidental findings

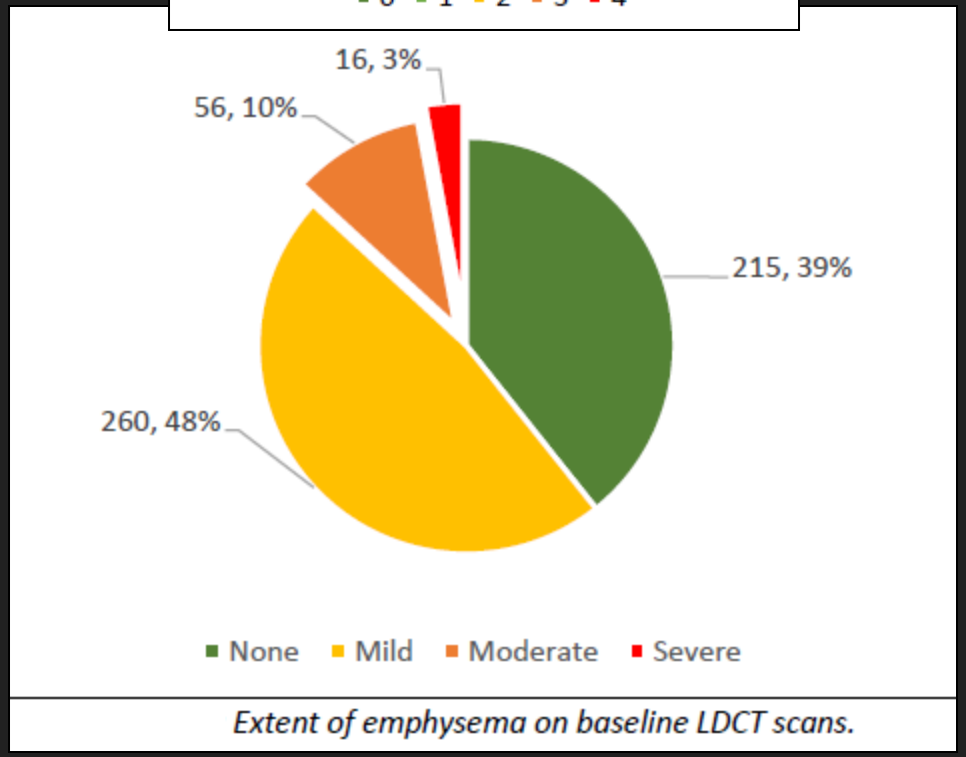
**Emphysema**

- Very common in this cohort, mostly mild
- Not the same as COPD
- Harms of overdiagnosis
- Standard advice on results letters
- Consider further action if moderate/severe emphysema + no prior COPD diagnosis + symptomatic

**Low frequency of other respiratory findings** (<1%)

- "Asymptomatic" population
- Higher threshold for reporting than symptomatic setting
- Opportunity for in-programme surveillance



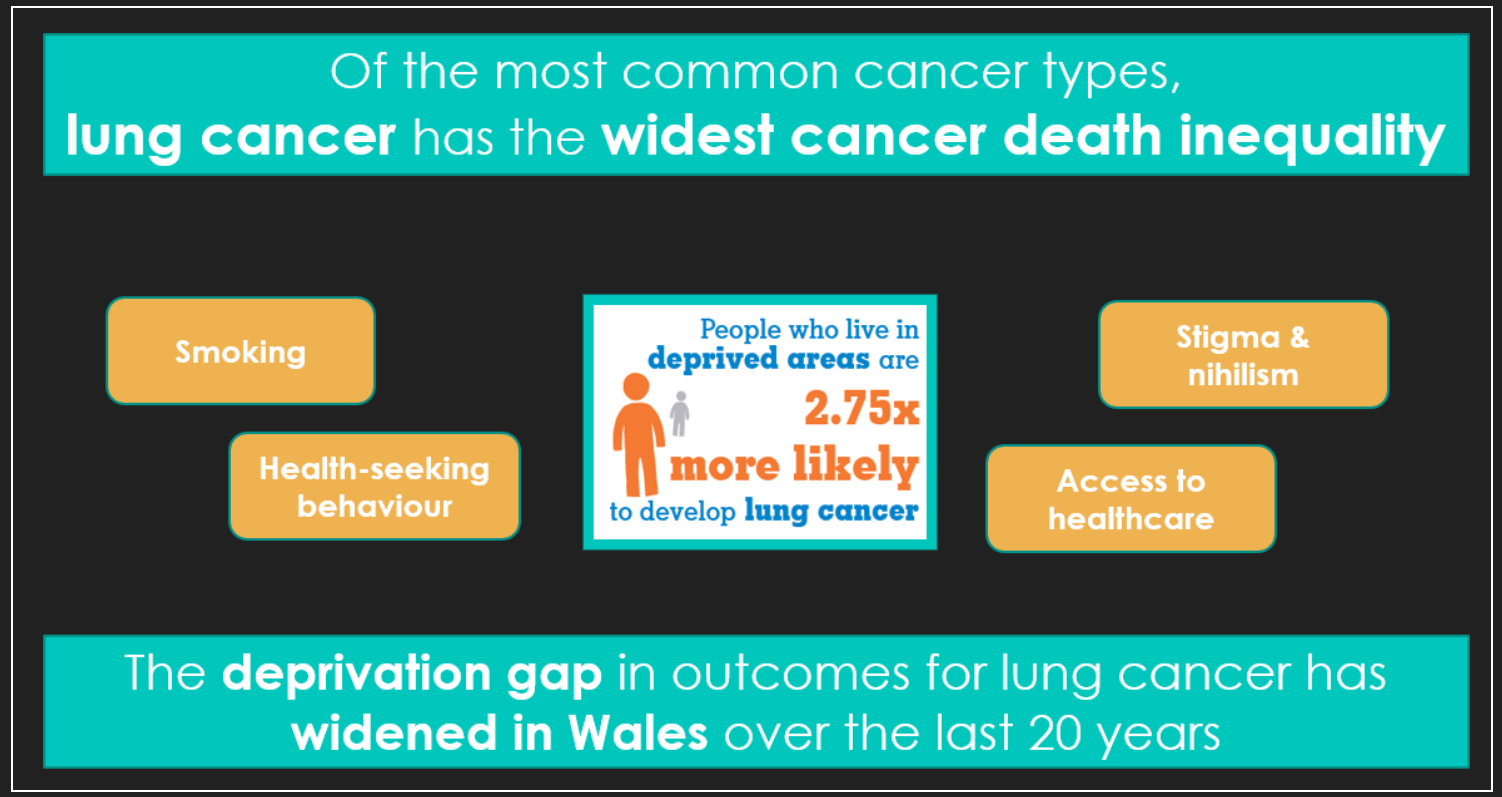



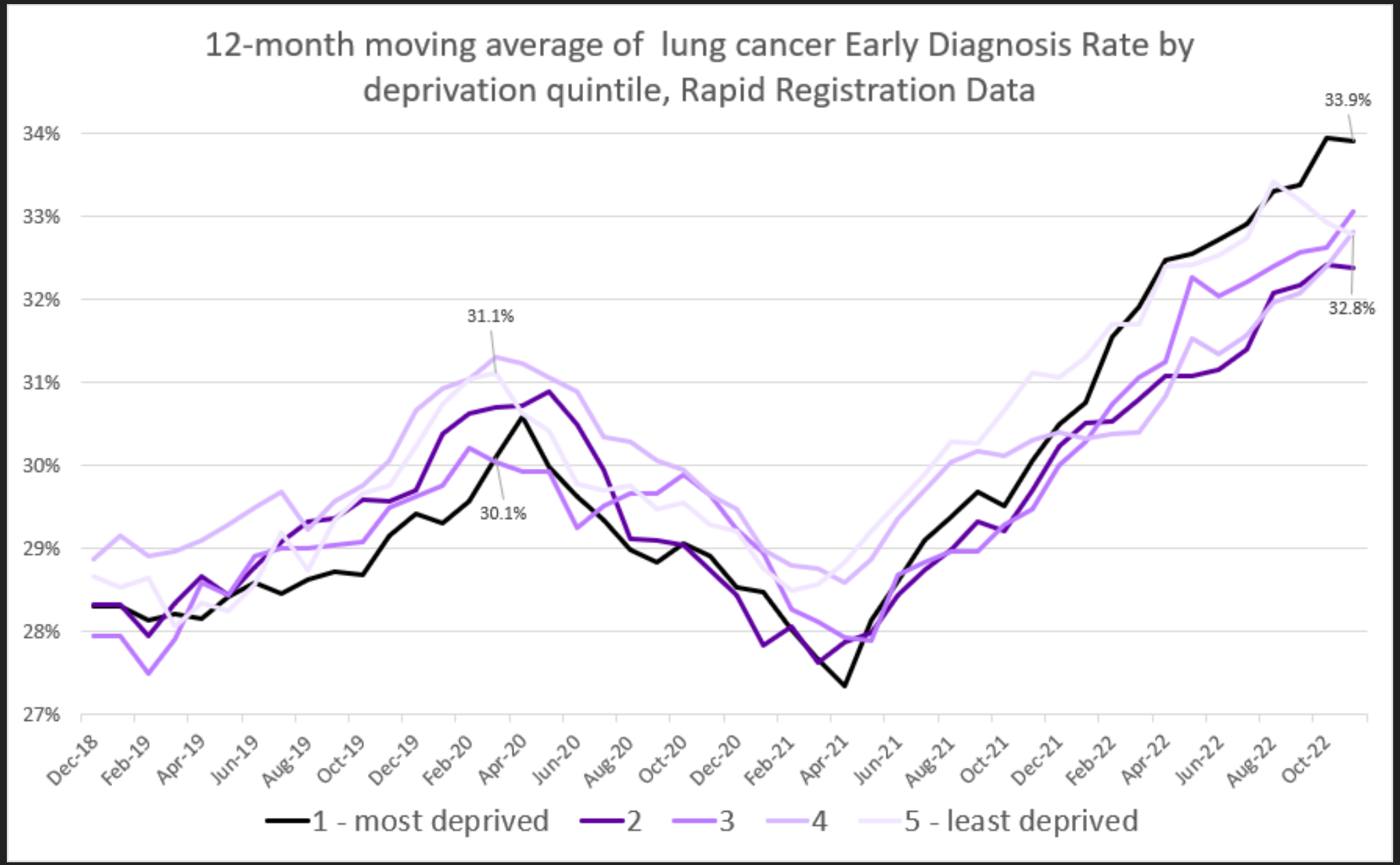

*Extent of emphysema on baseline LDCT scans.*

# Challenges

- Large complex implementation programme
  - Digital
  - Logistics & rurality
  - Workforce
  - Downstream capacity
  - External dependencies
- Deprivation &

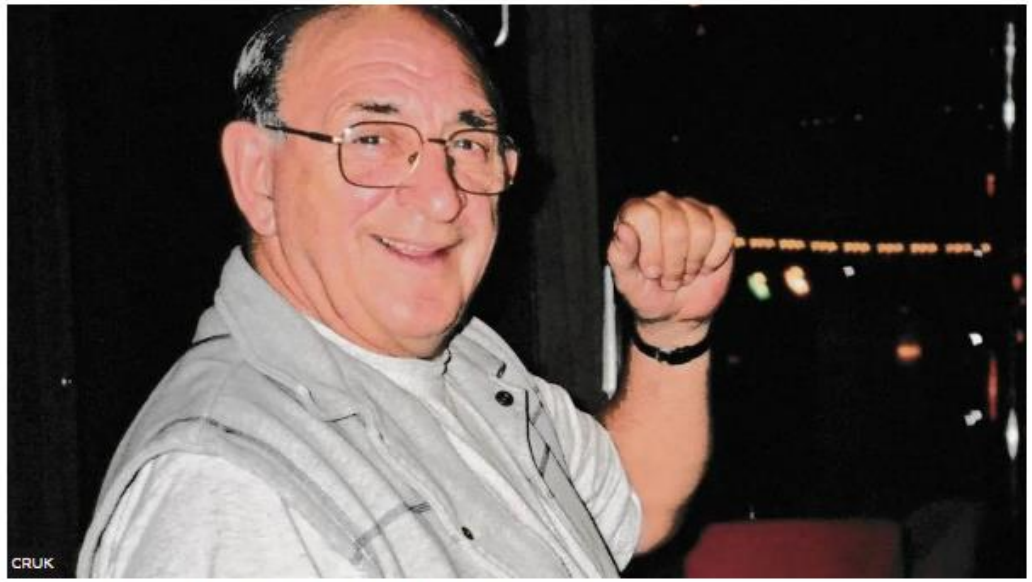
  "Healthy screenee" bias




12-month moving average of lung cancer Early Diagnosis Rate by deprivation quintile, Rapid Registration Data
34%
33%
32%
31%
30%
29%
28%
27%
33.9%
32.8%
31.1%
30.1%
Dec-18
Feb-19
Apr-19
Jun-19
Aug-19
Oct-19
Dec-19
Feb-20
Apr-20
Jun-20
Aug-20
Oct-20
Dec-20
Feb-21
Apr-21
Jun-21
Aug-21
Oct-21
Dec-21
Feb-22
Apr-22
Jun-22
Aug-22
Oct-22
1 - most deprived
2
3
4
5 - least deprived

# Lung cancer screening could have saved my dad, claims daughter

2 hours ago




Jack Cordwell died after being diagnosed with lung cancer, aged 76

By Jack Grey
BBC News

**A woman described the shock of finding out her father had lung cancer, despite having not smoked for 20 years.**

Lorraine Wingert-Scheeres, whose dad Jack Cordwell died aged 76, believes it



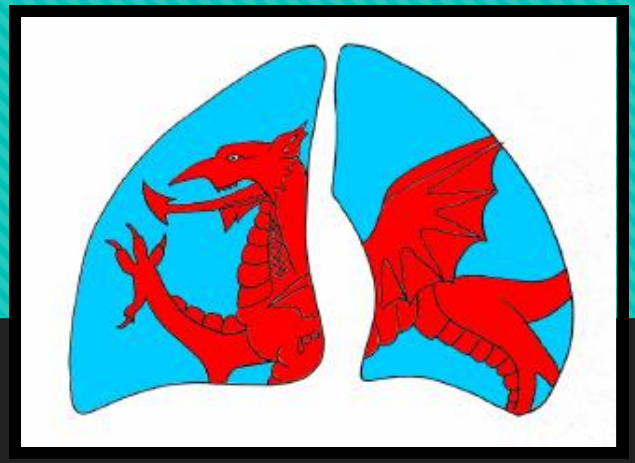
# Lung cancer: Woman once paid in cigarettes welcomes screening

13 October 2023

Julie Williams started smoking as a teenager but gave up recently

Jenny Rees
BBC Wales health correspondent

# Summary



- **Lung cancer screening**
  - Clinically and cost-effective
  - Recommended for implementation by UK National Screening Committee

- **National lung cancer screening programme** in Wales
  - Commitment from Welsh Government to development of programme
  - Large complex programme of implementation work led by Public Health Wales
  - Launch Spring 2028

**Sinan.Eccles@wales.nhs.uk**