

Manchester's Lung Health Check Pilot



"We have hard evidence now that CT scanning high-risk patients helps us to identify cancers early enough to cure them."

Dr Phil Barber MCIP Lung Clinical Lead



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What is MCIP?

MCIP is a partnership of the organisations that buy health care and give health care, and local people affected by cancer. They all work together to improve cancer care across the city of Manchester.

Since the official launch of the MCIP programme in June 2014, significant progress has been made not just in lung early diagnosis work but also in the support and follow up for breast cancer patients and improvements in primary care cancer support and palliative care. This work has been made possible through the funding and support of Macmillan Cancer Support.

The MCIP vision is that local people will be able to say that they had the best support and treatment from an expert team who made them feel cared for and in control.

Our change programme is based on the Macmillan 9 outcomes and national cancer improvement areas, matched to local need.

The MCIP partnership includes:

- Manchester Clinical Commissioning Group
- Macmillan Cancer Support
- University Hospital of South Manchester NHS Foundation Trust
- Manchester GPs
- People Affected by Cancer
- Manchester City Council
- Central Manchester University Hospitals NHS Foundation Trust
- The Christie NHS Foundation Trust
- Pennine Acute Hospitals NHS Trust
- St Ann's Hospice



MCIP stakeholders at one of the programme's early scoping meetings

Lung Health Check Overview

The Macmillan Cancer Improvement Partnership in Manchester (MCIP) in collaboration with the lung cancer team at the University Hospital of South Manchester (UHSM) established a new pilot service to detect lung cancer earlier in some of Manchester's most deprived areas. The service was funded by Macmillan Cancer Support and commissioned by Manchester Clinical Commissioning Groups.

The purpose of the Lung Health Check was to find lung disease, especially lung cancer, at an earlier more treatable stage. Evidence shows that lung cancer survival rates are much higher the earlier a lung cancer is found. We also wanted to test the feasibility of running a targeted screening pilot in Manchester's deprived areas – what people would think of it and whether they would use it. This is the UK's first community-based low-dose CT lung cancer screening NHS one stop shop service.

What we did

We contacted all those aged 55 to 74 in the 14 participating GP practices by letter, on GP letter head, and invited them to book a Lung Health Check if they were either a smoker or an ex-smoker. A leaflet came with the letter to help people decide if it was something they would like to take part in. Letters were not sent to people with a diagnosis of lung cancer within the last five years or those with a terminal illness.

The Lung Health Check was based in supermarket car parks with a one-stop shop design to make taking part as easy and convenient as possible. It was conducted by a lung specialist nurse and included discussion about symptoms, a breathing test (spirometry) and calculation of a person's individual lung cancer risk. Anyone at high risk of lung cancer was invited to have an immediate



Community leader and former Manchester Lord Mayor Paul Murphy with MCIP Lung Clinical Lead Dr Phil Barber

low-dose CT scan in a mobile scanner in the same shopping area car park. Those at low risk did not require a CT scan. However, anybody with abnormal symptoms and/or an abnormal breathing test were asked to contact their GP. GPs were also notified of findings so that treatment and support could be offered.

Specialist NHS Consultants reported the CT scans usually within 14 days. Most scans were negative and required no further action. On about 1 in 10 scans a nodule was found in the lungs. These individuals had a follow-up scan 3-months later, to check that the nodule had not grown. Where there was a finding that was worrying for lung cancer, these scans were immediately reviewed by the lung cancer team at UHSM and patients asked to attend the chest clinic. Further tests were carried out as required and treatment offered for those where lung cancer was confirmed.

CT scans may also pick up diseases other than cancer in the lungs and heart. Any significant non-cancer finding was flagged by the screening team and the result forwarded to the GP with guidance for follow-up. All those scanned in the first round can return for a second scan 12 months after their first.

Why did we do it?

Too many people in Manchester are dying from lung cancer and there are high levels of other lung problems such as COPD. Most lung cancers are diagnosed at a late stage when survival is poor. Manchester has some of the highest rates of smoking in the country, which is a major factor in poor lung health especially in large sections of the city's deprived communities.

Lung cancer is the most common cause of death in Manchester in people under the age of 75. The combination of high levels of smoking and older age groups results in North and South Manchester having the highest rates of lung cancer in the country. Indeed the number of deaths in the under 75 age group caused by lung cancer is greater than all other cancers combined.

The pilot is based on results of the National Lung Screening Trial (NLST) in the United States. This is the world's largest lung cancer screening trial. It showed a 20% reduction in lung cancer deaths and a 6.7% reduction in deaths from any cause by scanning people at risk of lung cancer each year. Based on the results of this trial the US Preventative Services Task Force recommends screening for high risk individuals aged 55-80. The UK Lung Screening Trial (UKLS) also showed screening finds lung cancer at an early stage, with curative surgery offered to more than 80%.

Who attended?

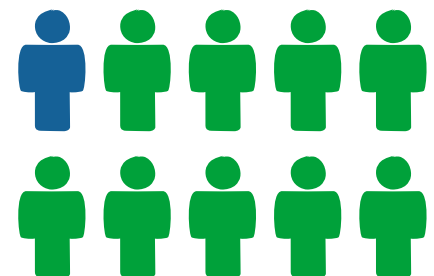
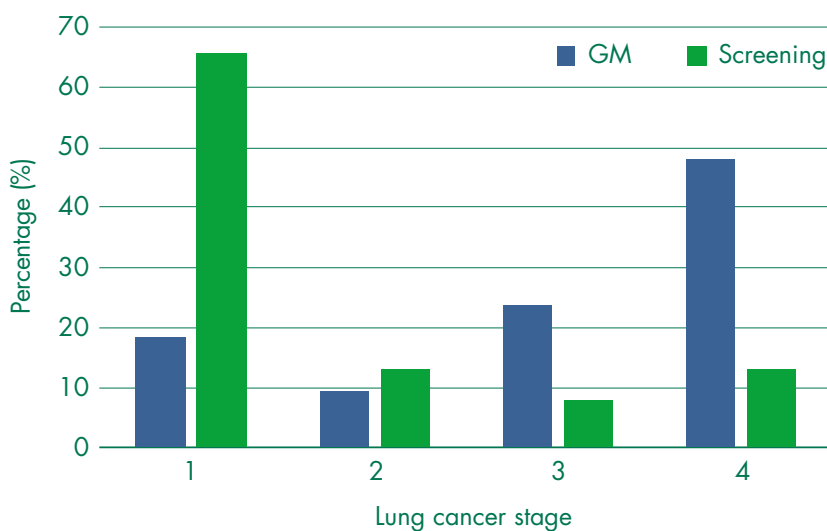
The demand was higher than we had anticipated, indeed the bookings-service was so inundated with calls that they needed to open more phone lines. The service also needed to expand the number of appointments. More than 2,500 individuals came for a Lung Health Check, an equal number were men and women. A third were current smokers and most were from very deprived areas. Of those attending the Lung Health Check, just over half had a risk level that qualified them for a CT scan.

What did we find?

We found 42 lung cancers, one lung cancer for every 33 CT scans. Almost 8 out of 10 cancers were early stage and only 1 in 10 had advanced lung cancer (stage 4). Potentially curative treatment was offered to 9 out every 10 people with lung cancer. This is a marked difference to lung cancer diagnosed outside of screening where half of patients have advanced disease and therefore do not have a curative treatment option at the time of diagnosis.

These results show we have met our ambition of finding cancer at a much earlier stage which can be treated curatively. We have also shown that many people in Manchester wanted to take advantage of the service. The level of lung cancer we found is higher than any of the large international trials. The Lung Health Check also detected a large number of people with Chronic Obstructive Pulmonary Disease or COPD who had not been previously diagnosed. This means more people can be given treatment and advice to manage previously undiagnosed disease which is better for their health and less costly for the NHS.

Lung cancer: stage shift



9 out of 10 diagnosed patients were offered curative treatment

What did people think of the service?

People having their lungs checked were asked what they thought of the service. 99% thought the care and treatment, waiting time, location and communication was either excellent or good. Nearly all said they would recommend the service to friends or family.

What our Lung Health Check patients said...



Elaine Walker Lung Health Check patient with Dr Richard Booton

"I'd recommend it anytime, it's so convenient, I think something like this where it takes five or ten minutes of your time and you're offered the appointment, just go."

"It's not good news but at least I know now...I still think [the Lung Health Check] is a good thing."

What next?

The results of the pilot will be considered carefully by Manchester and Greater Manchester Health Care commissioners to consider if future funding can be offered to expand this work further.

Michael Brady – Lung Health Check Patient

Michael Brady, aged 64 is a retired factory operative from Harpurhey.

He was diagnosed early with lung cancer after attending a Lung Health Check at a mobile CT Scanner unit parked at his local shopping precinct.



Michael Brady outside his flat in Harpurhey

Michael was already being treated for COPD and had regular x-rays to monitor his condition. He was invited to attend the Lung Health Check as he was aged between 55 and 74, had previously smoked and was registered with a participating GP practice.

"I was scanned on the Tuesday there and then at Harpurhey Precinct and then I was sent a hospital appointment and attended that within a week of my Lung Health Check.

"The doctor told me that they'd found a cancer in one of my lungs that was about the size of a pea. He said that it could be got rid of by radiation therapy and that I wasn't to worry.

"I know I've got cancer and it is scary, but I'd rather know. I know what I'm dealing with and I'd rather know now than in a few months or years time when it will be too late.

"I honestly feel as though this Lung Health Check has saved my life."

Michael has undergone radiation treatment at The Christie NHS Foundation Trust, Manchester.

Watch Michael's story here:

<https://www.youtube.com/watch?v=pqTCT3aGTJs>

Hospital Clinical Team



Dr Phil Crosbie and Dr Phil Barber present the pilot at MCIP's Tackling Cancer Care in Manchester event in February 2017

The Manchester Lung Health Check was designed via MCIP and run by the lung cancer team at the University Hospital of South Manchester.

Dr Phil Barber is the Clinical Lead for the MCIP Lung Cancer Programme and Dr Phil Crosbie is the Early Detection theme lead for the Cancer Research UK Lung Cancer Centre of Excellence. Dr Richard Booton is UHSM Lead Lung Cancer Clinician & Clinical Lead for the Greater Manchester Lung Cancer Screening Service. Dr Haval Balata is the UHSM Clinical Research Fellow for the Manchester Lung Health Check Pilot. Radiologists and their teams from across the region contributed hugely to the pilot's success.

GPs' Input Crucial to Success

Fourteen GP practices in three clusters based around Harpurhey, Gorton and Wythenshawe took part in the Lung Health Check Pilot.

Like the vast majority of Manchester GPs they had been highly engaged with MCIP from as early as 2013 and have worked with MCIP to increase early diagnosis rates and raise standards in cancer care and treatment.

The pilot practices played a pivotal role in communicating and engaging with patients. Without this GP input in tandem with a concentrated community engagement strategy, people would not have used the service to the extent that they did.

Denis Colligan, Macmillan GP, North Manchester CCG said: "My practice in North Manchester was signed up to the pilot. We had clear information beforehand about what was involved, and the disruption was minimal.

"Once the pilot started, the feedback from patients was very positive. The results have generated some extra work for us, but we can see the benefits in patients who have had an early diagnosis of lung cancer and subsequent treatment that has every chance of being curative."

How We Engaged With Local People



The Macmillan Information and Support Service bus staff joined forces with the CCG's engagement team and Manchester City Council Libraries Macmillan Information and Support staff to publicise the pilot by Gorton's Tesco

Local community engagement was used to publicise the pilot service in areas around the one-stop shop locations including local shops as well as GP waiting rooms.

This was undertaken by the Manchester CCG Communications and Engagement team, Manchester City Council Public Health, Macmillan Cancer Support and BHA for Equality.

MCIP User Involvement volunteers also played an active role in designing and publicising the service.

The Macmillan Cancer Support bus was used as a focal point for conversations and at community events.

GP practice staff also actively talked to their patients encouraging attendance and answering questions about the service.



MCIP User Involvement Volunteer Mike Thorpe mans the information stall outside ASDA Harpurhey

Making TV Headlines



BBC Health Correspondent Dominic Hughes films outside the mobile scanner at Wythenshawe Forum

In November 2016 BBC News decided to cover the Manchester Lung Health Check pilot as an example of an innovative approach to reducing cancer mortality rates in deprived areas.

BBC Health Correspondent Dominic Hughes and his crew spent a day with the Lung Health Check team while they were based in the car park of Wythenshawe Forum.

The coverage was seen by more than 6 million BBC Breakfast viewers and throughout the day on the BBC News Channel and BBC News Online.

Read Dominic Hughes story here: <http://www.bbc.co.uk/news/health-37923708>

Find out more



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For more information on MCIP please go to:
http://www.macmillan.org.uk/documents/aboutus/health_professionals/macmillancancerimprovementpartnership/mcip-brochure.pdf

Email: SMCCG.MCIP@nhs.net

Twitter: [#MCIPMcr](https://twitter.com/MCIPMcr)

Pinterest: www.pinterest.com/nhsinmanchester/macmillan-cancer-improvement-partnership

YouTube: <https://www.youtube.com/channel/UCSBU-LeaHPbowyVoOGN4FKw>

Flickr: <https://www.flickr.com/photos/127670636@N07/>



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