Purpose-led Partnerships: Transforming healthcare and advancing practice change

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Date of Preparation: June 2025

AstraZeneca

AstraZeneca: The UK's Leading Biopharma

~1 million
UK patients on AstraZeneca medicines each year

850
partnerships across the NHS, industry & academia

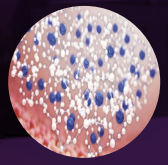
5
UK locations
Manufacturing, R&D, Patient Access

10,000
people employed by AstraZeneca in the UK

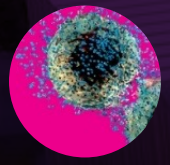
- In 2023, our UK operations were responsible for over 40% of UK pharmaceutical product exports, supporting £10.9 billion in sales to global markets.
- We are the largest single private investor in R&D in the UK.

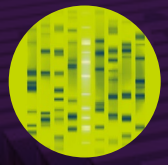
Five therapy areas


Oncology


CV, renal & metabolic


Respiratory & immunology


Vaccines & immune therapies


Rare disease

Transforming population health

Proactive early diagnosis

Equitable access to evidence-based care

Ambitious, purpose-led partnerships

*Data correct as of June 2025

Analogue to digital

BRCA Genes and Me

A digital patient empowerment project

Analogue to digital

The challenge

Around **55,000** women are diagnosed with breast cancer every year in the UK.[1]

Up to **70%** of women with a faulty *BRCA1* or *BRCA2* gene will develop breast cancer by the age of 80.[2]

People with a faulty *BRCA1* or *BRCA2* gene variant have a 50% chance of passing the variant to each of their children.[3]

Our collaboration

Our partnership with NHS South West Genomic Medicine Service aims to educate breast cancer patients about *BRCA* genes, genetic testing and potential treatments, empowering them to become effective decision makers in their cancer journey.

Co-designed by clinicians and patients, the project introduces the concept of genetic testing for breast cancer in an accessible format, presented as a six-part series of colourful animations. Each video features digestible information accompanied by gentle music and a clear voiceover that takes the participant through the process and implications of genetic testing.

The impact

6x short animated films.

>1,000 views to date.

Videos and resources available in **7 languages.**

AstraZeneca & NHS case study: Chronic Kidney Disease

Analogue to digital
Reducing health inequalities

Improving earlier diagnosis and supporting early medical treatment

The challenge

To help prevent cardiovascular disease such as heart failure and to reduce the progression to end stage renal disease, including the requirement for dialysis.

A key priority need is to **reduce health inequalities**; we know that approximately **50% of coded chronic kidney disease (CKD) resides in 20% of practices** within the areas of highest socio-economic deprivation.[4]

Our collaboration[5]

Our collaboration with Health Innovation North East and North Cumbria Health Improvement Network (HI NENC) involved the development, delivery and validation of a suite of resources to support improved coding, diagnosis and management of patients with CKD.

We set out to develop the Clinical Digital Resource Collaborative (CDRC) for CKD and produce associated educational support materials to support CDRC use and validate these in clinical practice.

The resources included to support development and legacy of the programme were:

- Development of 'Systm1' & 'EMIS' user guides to be uploaded to HI NENC portal, facts.ckd.
- Host 3 non-promotional webinars in collaboration with NHSE on disease awareness and how facts.ckd programme can support CKD Quality Improvement (QI).
- Coordinate training for HINENC to develop 3 new project managers with CKD QI capability.
- Provide Leadership to 3 CKD programme leads at HI NENC working to engage local primary care networks (PCNs) in CKD QI as part of their portfolio.

The impact[5]

Patient identification: >9,200 patients had been identified as being unaware of having CKD and in need of initiating a care pathway.

80% of PCNs engaged with adoption of the CKD programme (of those HINs delivering this workstream).

80% of PCNs adopting resources (e.g., CDRC searches) to support case finding and subsequent optimisation.

Resource: The development of best practice for clinicians and healthcare providers regionally to embed training for primary care pharmacist to promote a culture of early identification, and treatment of CKD meeting GIRFT goals. A risk stratification tool to prioritise patients has also been developed.

AstraZeneca & NHS case study: Lung cancer[6]

Analogue to digital

Improving earlier diagnosis and treatment through AI screening

The challenge

The UK has one of the **worst five-year lung cancer survival rates** in Europe.[7]

More than **43,000 people are diagnosed with lung cancer** every year in the UK.[8] Up to 28% of those occur in patients with no history of smoking.[9] While a national lung screening programme can help drive earlier diagnosis among targeted at-risk populations, people who are not eligible for targeted screening face delayed lung cancer diagnosis.

Identifying and following up on lung nodules is a mainstay in early diagnosis of lung cancer. However, observer scanning errors account for up to **30% of lung cancers that are missed** on chest X-rays.[10]

Our collaboration[11]

Our collaboration involves using AI-enabled triage to analyse chest X-rays in a Trust and detect lung cancer earlier. We are partnering with a technology company that offers a CE-marked chest X-ray AI software.

This software uses a patented deep-learning algorithm to automatically interpret chest X-rays, identifying over 29 abnormalities,[12] including lung nodules, with high accuracy in less than a minute.

The software also assists in pinpointing the location and size of these nodules, aiding clinicians in identifying small nodules that may be overlooked, even by experts. We are currently piloting this software in Greater Manchester, working with local NHS leaders to ensure seamless integration across seven NHS Trusts in the region.

The impact

- Covered 5 **main Acute Hospital Trusts** in Manchester.
- **>300,000** chest X-rays processed.
- Shown AI can reduce report turnaround times for prioritised chest x-rays with a **46% improvement** in achieving the national optimum lung cancer pathway target vs the average at the first pilot site.
- Resulted in a greater understanding of the benefits and risks of using AI in clinical practice, lessons learned in implementing AI at scale, and recommendations to further evaluate AI and address gaps in the evidence identified in the NICE early value assessments (EVA).

AstraZeneca Oncology UK, Barts NHS Trust & Deontics

Analogue to digital

Streamlining MDT technology to improve patient outcomes

The challenge

The number of people living with cancer in the UK is now almost **3.5 million**, the highest figure ever recorded.[13]

With rising cancer rates, cancer multidisciplinary team meetings (MDTMs) are now becoming overburdened with increasing caseloads.[14]

They face unsustainable pressure with escalating costs, increasingly complex cases, overstretched clinicians, and not enough patient data, leading to suboptimal process and decision making.[14]

Our collaboration

Our collaboration with Barts NHS Trust & Deontics aimed to demonstrate the impact of using multidisciplinary team (MDT) streamlining technology to reduce the burden on the MDTM for lung cancer.

The project had a few key objectives:

- To deliver an MDT streamlining tool into the lung cancer MDTs.
- To reduce burden on lung cancer MDTMs.
- To accelerate patient flow to standard of care protocols.

The impact

The NHS long term plan[15] and NHS England guidance[16] show an acceptance of an **urgent need to reform and modernise the MDTM** so that patients receive timely, evidence-based, best practice and standardised care.

Technology could have a **huge impact** in the streamlining and optimisation of the MDT process.

AstraZeneca Oncology UK, Barts NHS Trust & Clinithink

Analogue to digital

The challenge

One-year lung cancer survival rates drop from **90%** if diagnosed at stage I to **20%** at stage IV.[17]

Despite the drastically reduced survival rates, **nearly half** (46%) of lung cancers in England are diagnosed at stage IV.[18]

NHS ambitions are for 75% of all cancers to be detected in stage I or II by 2028.[19]

Our collaboration

Our partnership with Barts NHS Trust and Clinithink adopted Clinithink's AI technology to build a predictive algorithm which can identify patients at a higher risk of lung cancer.

The integration of real-world data and AI techniques presents a promising avenue for improvement, using novel solutions not achievable through traditional care models.

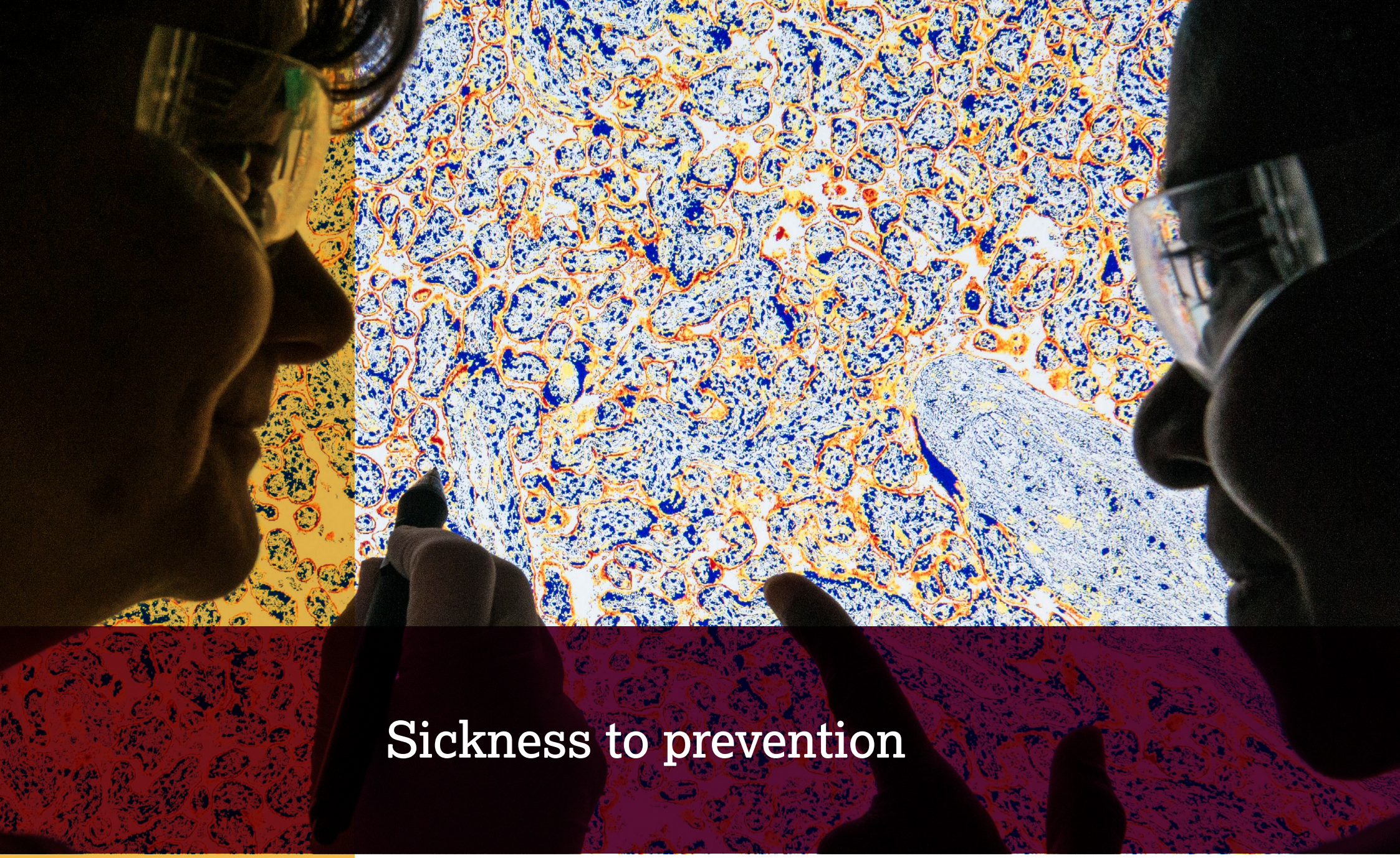
The approach uses innovative technologies and novel data sources to identify patients with early-stage disease, enhancing both clinical and economic outcomes.

The impact

The study processed over **75,000 historical patient records to train and test a predictive model**. The project was successful and demonstrated that the model, if used in clinical practice, would outperform the models used today to predict which patients will get lung cancer.[20]

The study demonstrates the practical utility of AI-supported early lung cancer detection at population scale.

Planned future work will leverage additional data sources to further improve model performance. It will also run the predictive model in a prospective clinical trial to evaluate the expected clinical and economic benefit.



Sickness to prevention

AstraZeneca & NHS case study: **Asthma care**

Sickness to prevention
Sustainability goals

SENTINEL: Optimising care through implementing Hull SABA*-free asthma

The challenge

There were around **20,000 people suffering from asthma in Hull**,[21] a region with some of the **highest SABA (blue) inhaler use** in the country. Overall, the level of blue inhaler (SABA) use in the UK is amongst the **highest in Europe with ~38%**[22,23] of asthma patients potentially over-reliant on SABA inhalers (prescribed 3 inhalers or more each year). SABA over-reliance is associated with an **increased risk of asthma exacerbations and premature death**.[24] It also has a significant **negative impact on the environment**.

Our collaboration

AstraZeneca's partnership with Hull University Teaching Hospital's NHS Trust, called SENTINEL, focused on optimising asthma care with a **goal of reducing over-reliance on reliever treatments, to help reduce asthma attacks and improve the associated environmental impact of SABA over-reliance**.

- Healthcare Professional Education
- Implementation of SENTINEL 'GOLD STANDARD' Prescribing Practice
- Targeted Asthma Reviews
- Patient Support and Education
- Real-time Data Monitoring and Reporting of Asthma Care Metrics

The intervention was designed in collaboration with asthma clinicians and patients using experience based co-design methodology.

The 5 core elements of SENTINEL aimed to support sustained improvements in asthma care.

The impact

- <3,000 patient reviews completed and the number of patients experiencing one or more exacerbations decreased by nearly a third.[25]
- 44,000 fewer SABAs prescribed vs previous 12 months[24]
  >8-fold increase in MART prescribing post vs pre-SENTINEL implementation.[25]
- 1,240 tonnes fewer eCO2 vs previous 12 months.[24]
- >400 PCNs (1/3rd of England) now enrolled.
- SABA prescribing in the pilot PCN was in the 98th percentile pre-implementation and reduced to below the national average (41st percentile) in less than 4 months post-implementation.[26]

*"SABA" inhalers are "Short Acting Beta Agonist" inhalers used to relieve asthma symptoms but without addressing underlying inflammation – over-reliance is shown to be associated with poorer outcomes

Embedding guidelines and clinical best practice in cardiovascular care for people with type 2 diabetes

Sickness to prevention

The BLMK Prescribing Incentive Scheme

The challenge

In the Bedford Borough, Central Bedfordshire, Luton and Milton Keynes (BLMK), the type 2 diabetes (T2D) population is over 63,000.[27] The T2D register grew by 14,000 between 2018/19-2022/23.[27] An additional 9,000 people in BLMK were newly diagnosed with T2D in 2022/23.[27]

Improving diabetes management is a key priority for BLMK integrated care board (ICB), including the rapid implementation of NICE new guidelines (NG28). However, there were several challenges, including requiring significant shift in mindset regarding management of people with T2D, competing existing pressures resulting in slow pace of change for previous guideline implementation, a lack of confidence among some practice clinicians about prescribing NICE recommended treatments, and cost implications.

Performance in 2021/22 was below England average for 3 treatment targets (HbA1C, BP and Lipids) – particularly marked for HbA1c and BP.[28] Additionally, the workforce faces challenges, with some of the highest ratios of patients per GP in the country (and the highest in East of England), and inequality and variation by practice/PCN.[27]

Our collaboration

The partnership between BLMK ICB and AstraZeneca aimed to support rapid implementation of NICE NG28 following publication in February 2022.

In collaboration with BLMK ICB, we launched the BLMK prescribing incentive scheme, which aimed to:

- Drive improvement in medication safety.
- Increase uptake of evidence-based treatments.
- Reduce variation and inequalities in prescribing.
- Optimise cost-effective prescribing.

The scheme was developed by the ICB Medicines Optimisation Team and Clinical Leads, in consultation with providers and people with lived experience, and approved by the BLMK ICB Prescribing Committee. The scheme was supported by improvement in:

- Ideation and co-creation: considered potential approaches to improve diabetes care, based on local needs and challenge.
- Data collection and planning: supporting analysis of practices/PCNs and patient with suboptimal patients care and low NG28 recommended therapy uptake.
- CVRM Project: Working with lowest performing PCNs: supporting development of PCN ARRS CVRM Clinics, providing education on current evidence-based best practice guidelines and enhancing PCN capacity to support CVRM management.

The impact

10,000 additional people with T2DM prescribed NICE NG28 recommended therapies.

Increased prescribing of guideline directed medical therapy.

AstraZeneca & NHS case study: **Severe Asthma in Wales**

Sickness to prevention

Working collaboratively with NHS Partners to tackle inefficiencies, identify opportunities and optimise patient pathways

The challenge

In 2017-2018, there were over **3,500** admissions for asthma in Wales.[29] Between 2009 and 2018, the number of **deaths related to asthma in Wales increased by 43%**.[29] The ABU Health Board has consistently had the highest rate of emergency hospital admissions for asthma over the last 10 years. The majority of patients with severe asthma are still not receiving the care they need and only about 20% of those eligible for biologic therapies are currently receiving these treatments.[29]

In order to meet the increasing demands, there was a need for a sustainable, patient-centred transformation of the current asthma pathway to enhance patient experience, clinical workforce delivery and overcome existing barriers to provide an effective and collaborative service for a group of patients with a significant unmet need.

Our collaboration

The collaboration between AstraZeneca Pathway Team & AB served to ensure equitable access to expertise across the AB health board geography, ensuring continuity of care between primary and secondary care with earlier treatment optimisation to achieve control, improve outcomes, quality of life and reduce unscheduled health care utilisation. A mapping exercise was undertaken to identify areas for improvement with a broad range of stakeholders engaged to contribute to two workshops. These workshops were designed to prioritise areas for change and effectively collaborate to develop and implement solutions that would ultimately improve and optimise the asthma pathway:

- Implementation of a standardised triage protocol.
- Appointment of an MDT Co-Ordinator.
- New physiologist-led diagnostic lung function pathway.
- Creation of e-referral forms.
- Transition of all biologic patients to nurse-led follow up after 12 mths.
- Creation of AB severe asthma database.

The impact[30]

There has been an overall improvement in the patient journey with reduction of waiting times through a streamlined pathway:

- Wait times for lung function testing 8 weeks vs 21 weeks at baseline with overall reduction in time from GP referral to Consultant review.
- Time taken to drug initiation has fallen from 16 weeks to <4 weeks.
- Reduction in asthma attacks in severe patients from median of 5 a year to 1 a year.

*Data has been provided by Dr. Michael Pynn, Aneurin Bevan University Health Board

AstraZeneca & NHS case study: Heart Failure pathway

Sickness to prevention

Working collaboratively with NHS partners to tackle inefficiencies, identify opportunities and optimise patient pathways

The challenge

A key priority was to reduce existing health inequalities, recognising approximately **80%** of heart failure (HF) is diagnosed once a patient is admitted via A&E.[31] The aim was to improve specialist services for patients suspected of HF from across NHS Somerset by optimising their HF pathway from referral to end of life. This ambition aligned to the objectives of the Cardiac Pathway Improvement Programme (CPIP).

Our collaboration

Following a referral from the local RHM, a collaboration between AstraZeneca & NHS Somerset was formed. A clear programme of work was agreed prioritising four objectives: creation of a single point of electronic referral, specialist triage supported by a minimum dataset, creation of a Rapid Access Heart Function service, and creation of a HF Palliative Care pathway. Programme activities included:

- Formation of a Strategic Leadership Group (SLG) which met every 6 weeks and was led by the HF Consultant with representation from across the pathway.
- 4 operational (short-life) Task & Finish groups established to deliver each objective met monthly and reported to the SLG.
- Local Medical Council on-boarded as a strategic partner (Trust merger was running concurrently with this project).
- Creation of a business case to develop new service model.

The impact[32]

There has been an overall improvement in the patient journey with reduction of waiting times through a streamlined pathway:

Development of a Rapid Access Heart Function Clinic (RAHFC) which provided patients access to a “One Stop” appointment for echocardiogram, ECG, clinical review and initiation of guideline recommended therapy.

Our approach reduced overall waiting times by streamlining time to diagnostics, diagnosis and medicines optimisation through 48 new clinic slots per month.

Project created additional dedicated HF capacity. Introduction of approximately 360 annual Rapid Access, One Stop clinic slots. Median wait time to transthoracic echo (TTE) was reduced from 152 to 23.5 days. Wait time to clinician review was reduced from 121 to 27 days.

*Data has been provided by Dr. Amy Burchell, NHS Somerset

AstraZeneca & NHS case study: COPD

LOGIC – hoListic prOactive manaGement In Copd[33]

Sickness to prevention
Sustainability goals

The challenge

There was an unmet clinical need in Hartlepool Health PCN with a **higher than national COPD prevalence** and it was ranked third highest for hospital admissions in England.

Better patient identification was needed as was a need to optimise the management of COPD patients.

Our collaboration

We used COPD heat maps, using prevalence, admissions, and prescribing data to identify where outcomes improvements were most needed.

Working with clinical pharmacists and with local nurses, we established an opportunity to reduce the number of multiple inhalers being used, in line with local guidance, to a fixed dose triple which the guidance positioned would be better environmentally and financially.

The impact

Improvements to COPD outcomes and a greater prevention of hospital admissions:

- **252 COPD patients were reviewed over the project duration.**
- **56% of patients had a clinically significant improvement in CAT scores.**
- **Following the project, 173 patients had personalised COPD care plans vs 70 before, representing a 147% increase.**

The care team's wellbeing was enhanced through supporting the upskilling of workforces through legacy mentoring.

Improved patient experience by supporting patients with education about their disease and through social prescribing.

Reductions in medicine wastage and sustainability resulted in cost savings, particularly through the transitioning of patients from using multiple inhaled therapies to single-inhaled therapies.

Project DART

Understanding barriers to biomarker testing to improve care pathways

Sickness to prevention

The challenge

Personalised medicines are driving a **revolution in cancer care**, improving patient outcomes through targeted treatments.[34]

However, not all eligible patients are currently accessing a timely biomarker test to determine the best treatment options for their cancer.[35]

Our collaboration

Through our partnership with Macmillan Cancer Support, we are working to better understand the barriers to biomarker testing in the NHS that stop patients being able to access the most effective care for them so that we can identify and implement solutions.

Our goal is to enable equitable and timely patient access to targeted treatments.

The impact

We interviewed **20** HCPs, held a patient focus group, and surveyed **198** patients and HCPs to understand their experiences.

Early insights were presented in a poster at the UK Oncology Nursing Society Annual Conference 2024 – **only around a quarter of cancer patients surveyed received information on biomarker testing**, but all of those that did found it useful.[36]

Hospital to community

England's First Community-Based Heart And Lung Screening Hub

How football can help save lives

Hospital to community

The challenge

With **50%** of breathlessness in adults over 40 years old caused by heart failure (HF), chronic obstructory pulmonary disease (COPD), obesity, anaemia, anxiety or depression,[37] HF and COPD are a **national priority**. Patients are often undiagnosed and misdiagnosed, with an increased risk of poor outcomes including a greater risk of hospitalisation and death.[37]

Our collaboration

In partnership with the Pumping Marvellous Foundation, Liverpool University Hospitals NHS Foundation Trust, Us2.ai and LumiraDx, Everton in the Community, with grant funding from AstraZeneca set up England's first heart and lung community-based screening hub associated with a Premier League football club to provide significant support for individuals suffering from chronic breathlessness.

The Hub serves one of the most deprived UK neighbourhoods, and its convenient location in Everton's 'The People's Place' embeds rapid, equitable access to essential diagnostics in the community. Patients can either walk in or be referred by their local primary care organisation.

The multidisciplinary team of primary care, heart and lung specialists utilise the latest artificial intelligence assisted technologies to enable prompt review of people with chronic breathlessness to establish a diagnosis, such as heart failure or COPD.

The impact[38,39]

- **1,112 people screened with 32% having increased BP, 57% of whom did not have known diagnoses of hypertension**.
- **3%** of people were diagnosed with heart failure,18% of whom were onboarded to the acute HF virtual ward for prompt home/ambulatory initiation of guideline-directed medical therapy.
- AI-enabled spirometry and specialist assessment detected COPD in 12% of people, with combined HF and COPD present in 30% of individuals. Atrial fibrillation was detected in 3.1% of people.
- The Hub has helped to alleviate pressure on regional public health services, saving the NHS approximately £110,000 to date.
- Recent survey feedback revealed that **89% of patients preferred their experience at People's Place** to a clinical hospital setting. The findings also showed that participants benefitted from the **wrap-around support** available at the hub, with **33% referred for further emotional and wellbeing support** following their breathlessness diagnosis.
- The Hub won 'Most Impactful Partnership in Preventative Healthcare' at this year's HSJ Partnership Awards. Also the Hub was highly commended in a second category, 'Most Effective Contribution to Improving Care for Those with Long-term Conditions', in recognition of its outstanding dedication to improving healthcare and effective collaboration with the NHS.

Addressing flu vaccination hesitancy in the Wirral & East Cheshire

Hospital to community

The challenge

Seasonal flu represents a substantial burden to people, healthcare systems and economies. Children under the age of five have among the highest hospitalisation rates with flu,[40] and have a key role in transmitting flu to siblings, parents and grandparents.[41]

The UK implemented the childhood flu immunisation programme,[42] based on data that immunising children aged 2-17 years, rather than older adults, appears to be the most efficient way to reduce infections and mortality caused by flu.[42,43,44] However, uptake of the childhood flu vaccination by school-aged children has remained stagnant at approximately 50% since the pandemic.[45,46]

Our collaboration

Working with Wirral & East Cheshire School Age Immunisation Services (SAIS), we identified the need for additional support for parents to complete the consent process which allows their child to be immunised for flu in school.

This project piloted the provision of additional admin roles to contact non-responding parents directly via telephone and/or text, to address barriers to engagement. Experienced admin staff were used to contact parents, handle general enquiries, advise on the consent process and were necessary book children into alternative clinics. Parents requiring a clinical conversation were supported by a specialist Immunisation nurse.

The impact

Interim results show:

- 830 additional children were vaccinated from across the 32 target schools – a 2.63% increase – compared with the previous winter season.
- 5 schools reintroduced paper consent forms (in addition to the digital consent) so school staff could support parents, addressing inequalities due to lower literacy levels or digital poverty.
- Insights were gained into the reasons why the parents hadn't responded to the original vaccination invite (informing recommendations for how to adapt the consent process) and why parents may not want their child vaccinated (informing public health messaging).
- Aspiration to complete in the 2025/26 season.

AstraZeneca & NHS case study: ‘Check Your Lungs’

Improving lung screening through public engagement

Hospital to community
Sickness to prevention

The challenge

England has some of the **worst five-year survival rates for lung cancer in Europe**.[47] Late diagnosis is a significant factor, leading the NHS to run pilot Targeted Lung Health Checks (TLHCs) aimed at increasing early diagnosis of serious lung conditions. However, uptake of TLHCs in 2022 was low, with most NHS sites averaging **35%**.[48] As part of the Lung Ambition Alliance, a collaboration with patient organisations, scientific and medical societies, and industry, and with our commitment to improving lung cancer care, AstraZeneca wanted to support local NHS communications to at-risk populations eligible for TLHCs (individuals 55-74 years old with a history of smoking), through a targeted campaign that would help drive uptake of the TLHCs and this increase early diagnosis rates.

Our collaboration[49]

Through in-depth research involving >1,000 people in relevant at-risk target demographics, we looked to understand why they weren’t attending their health checks. This revealed a key insight: though people were largely aware that they had an increased risk of lung cancer, they believed they knew their own bodies well enough to sense when there was a problem, and therefore prioritised other things until they had symptoms of a problem – which, in the case of lung cancer, was often at a later stage of the disease.

We therefore needed a campaign that would show people that they couldn’t always trust their lungs to tell them when something was wrong. Using eye-catching optical illusions, our Check Your Lungs campaign demonstrated that just as your eyes could play tricks, so could your lungs.

We worked with four **local NHS teams to ensure our campaign messaging and activations aligned with them and developed hyper-targeted campaigns delivered through a multi-channel approach, driving audiences to local NHS TLHC sites**.

The impact

- Increased screening uptake rates were reported by the majority of participating NHS sites: 11% increase at one site and 16% increase at another.
- 280,000 unique users reached in our target audience group across the four NHS areas.
- 2,700+ meaningful social engagements (e.g., likes, comments or shares) on campaign content received.
  52,000+ click throughs to local NHS TLHC sites generated by content.
- One NHS site noted that to-date they have caught 21 lung cancers earlier, many at Stages I and II – meaning those patients have a better chance of improved outcomes.
- The campaign has been gifted as a toolbox to the NHS to run its own local and region campaigns.

AstraZeneca & NHS case study: Chronic Kidney Disease[50]

Hospital to community
Sickness to prevention

LUCID: Leicester, Leicestershire, and Rutland Chronic Kidney Disease Integrated Care Delivery Program (LUCID)[51]

The challenge

There are an estimated 7.2 million people living with chronic kidney disease (CKD) (stages 1-5) in the UK.[52] **40-45,000** people die prematurely in the UK every year due to CKD[52] and **over 70,000** people in the UK are currently being treated for kidney failure.[52] Every day, **over 20** people in the UK will develop kidney failure[52] and almost **1 in 2** people with CKD are undiagnosed.[53] CKD care in Leicester, Leicestershire and Rutland (LLR) is spread across primary and secondary care services. **Key challenges to the service include** the increasing prevalence of CKD nationally and within LLR, rising costs of CKD care, and workforce shortages.

Our collaboration

AstraZeneca UK collaborated with local renal leaders in Leicester to run the LUCID project. It saw nephrology specialists run CKD clinics in primary care, identifying high risk patients and optimising them on GDMT whilst educating primary care stakeholders. LUCID aimed to decrease the number of patients being referred unnecessarily into specialist clinics and to delay their progression to dialysis through earlier intervention, as well as maximising productivity and value-for-money across the healthcare system.

LUCID clinics enabled primary care clinicians to discuss patients with kidney specialists, helping to **reduce the number of patients needing emergency admission to a hospital**, and ultimately upskilling the workforce.

Since the start of this project, **54 LUCID clinics** have been held across 9 primary care networks, and a total of **575 patients** reviewed at these clinics.[51]

The impact[51]

Following the business case submission for ICB commissioning, the LUCID team have been successful in securing long term funding from the LLR ICB. This means that the nephrologists' time and primary care resource has been secured to continue LUCID clinics across all 25 Primary Care Networks in LLR.

£1,200
Estimated cost benefit per LUCID clinic.

£697,747
Estimated annual benefits of LUCID in the medium-to-long term in LLR.

£2,879,089
Estimated annual benefits of LUCID in the medium-to-long term if scaled across the entire East Midlands.

Optimising care to prevent COPD exacerbations in North Belfast Federation

Hospital to community

The challenge

The Global Initiative for Chronic Obstructive Lung Disease (GOLD) published "a brief update for practicing cardiologists", stating: "COPD is the elephant in the room for many patients with CVD…optimal management of COPD is associated with improved cardiovascular outcomes."[54,55] The GOLD report also highlighted that airway obstruction indicates an increased risk for all-cause mortality according to the severity of the GOLD stage.[55] All stages carry a risk for cardiovascular death independently of smoking history and other known risk factors.[56]

In Northern Ireland, the Belfast Health and Social Care Trust (BHSCT) had the highest rate of respiratory admissions (1,582 per 100,000) and respiratory deaths (145 per 100,000) across all the health trusts.[57]

Following the Asthma and Lung UK patient survey, we know that the majority of those with a diagnosed lung condition do not receive best practice ongoing care.[57] This means there is a huge opportunity to reduce hospital demand by better supporting patients post diagnosis.

Our collaboration

In August 2023, a joint working project was agreed between the North Belfast GP Federation (NBF) and AstraZeneca UK. To meet project demands, the NBF contracted and collaborated with Screen Clinical Ltd to provide additional resource and knowledge to fulfil the project.

The project aimed to identify COPD patients with increased cardiopulmonary risk and to subsequently minimise risk in primary care by focussing on implementing the 5 fundamentals of COPD care.[58]

In September 2023, the project commenced with the interrogation of clinical systems across 17 GP Practices in the NBF.[55]

Patients were sorted into cohorts based on their condition, with cohort 6 being those with COPD and CVD. From there, appropriate patients were called for face-to-face pharmacist-led clinics between October 2023 and March 2024, where Screen Clinical pharmacists undertook individualised assessments for each patient and implemented the 5 fundamentals of COPD care. Additional screening was performed to identify patients with COPD and CVD at increased cardio-pulmonary risk, which found that:[55]

- 572 patients had COPD and CVD
- 388 had a history of exacerbation
- 378 were invited to clinic
- 303 attended clinic (80%)
- 221 had an exacerbation in the last 12 months (73%)
- 29 had been hospitalised (10%)

The impact

Our findings underscore the critical importance of stratifying COPD patients based on their symptomatology, exacerbation history, and cardiopulmonary profile. By tailoring interventions according to these stratifications and implementing the fundamentals of COPD care, we can more effectively manage COPD and put primary prevention strategies in primary care.[55]

This approach not only optimises patient outcomes but also enhances overall healthcare efficiency by minimising the burden of COPD across the healthcare system.[55] Moreover, proactive and personalised care, promises to significantly improve the quality of life for COPD patients.[55]

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