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Participation and access for equitable screening

Breaking down barriers to cancer screening

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Executive summary

About the research

Deloitte is firmly committed to advancing the health and wellbeing of our population. In conjunction with the Deloitte Health Equity Institute, we undertook an independent study on participation and access to cancer screening in 2024. The aim was to provide insights on how to improve screening programmes, in order to reduce health inequalities for cancer outcomes. We focused our field research on breast and bowel cancer, in areas where there is particularly low uptake of screening – Birmingham and Hackney, London. Our methods included ethnographic research, quantitative modelling, interviews and surveys.



Key findings

The study revealed five main barriers preventing ethnic minorities and those living in areas of high deprivation from taking part in screening:

- 01. Insufficient collection of and access to data prevents more targeted screening that is more focused
- 02. People want information about screening, but it is not getting to them leading to confusion and misconceptions
- 03. Invitations and screening kits are not reaching everyone
- 04. Practical and cultural challenges prevent some who are willing from being screened
- 05. Fragmentation across health services means the processes are not optimised and accountabilities are not clear

Recommendations to help improve screening participation

Better use of existing NHS data could unlock a more targeted approach to screening

Experts in health equity and cancer screening stressed the value of aligning data across disconnected data systems within screening programmes, vaccination programmes and wider population health data. Collecting, collating and integrating relevant data sets will improve visibility. This will enable greater insight to inform screening strategies that are targeted based on factors including clinical risk and social determinants of health, in addition to the current gender/age-based screening eligibility criteria.

Empower the public through omnichannel communications

Methods for educating about screening are not effective enough – but the appetite to learn is there. The current reliance on postal services also means that breast cancer screening invitations and Faecal Immunochemical Tests (FITs) for bowel cancer screening are not reaching everyone. A personcentred, omnichannel communications strategy to create engagement will help empower the public to understand the importance of screening for themselves and loved ones, relieving pressure on the NHS. The joined-up approach could include SMS, email, personalised letters, social media and TV ads, and bring in GPs, community centres, employers and more.

Design for inclusion, design for all

Understanding how best to engage with populations with low uptake does exist but initiatives are not yet adopted nationally. NHS support to share learnings nationwide and provide investment for inclusive approaches – accessible and usable by everyone – will help to scale up the impact.

Create a collective plan for change

Reinvigorating the Long Term Plan (LTP) for Cancer and recommendations for screening through a collective approach to action will drive change across the system. Defining roles and responsibilities for multiple actors including Integrated Care Systems (ICSs), GPs, regional screening teams and the Voluntary Charity and Social Enterprise sector (VCSE) will create an easier experience for the public and clinicians alike.

Economic benefit

As well as bringing health benefits, including early detection and saving lives, we explored the potential financial impact of increasing screening rates for low-participating groups. Our scenario modelling shows interventions could unlock £39–44 million in productivity gains per screening cycle across bowel and breast cancer screening alone.

Conclusion

In addition to the current universal eligibility screening programmes based on age, we recommend a more targeted approach. Omnichannel communication should be tailored to the individual, with the frequency of contact and screening flexing as appropriate. Targeting should be based on factors including clinical risk and social determinants of health. The approach would require data to be brought together from across screening programmes and other services, such as health protection.

Ultimately, individuals should be empowered, capable of managing their own health and overall wellbeing.

Cancer screening holds the power to save lives and improve health

Foreword

Over the past 20 years, the NHS has put forward a number of strategies aimed at improving cancer services and outcomes. They include the 2019 Long Term Plan (LTP) for Cancer¹ – which set the ambition of diagnosing 75 per cent of cancers at stage 1 or 2 ('early stages') by 2028 – and the Cancer Programme².

Recognising the problems caused by existing health inequalities, the NHS's 'Core20PLUS5'³ approach also identifies priority populations to target, aiming to reduce these inequalities both at a national and local level.

Cancer screening is crucial to the success of the strategies – it is one of the most effective tools to identify cancer early and help save lives. However, unless there is a significant increase in screening participation rates, the LTP ambition for diagnosis will not be met. Current progress is described as 'inadequate⁴⁴.

Crucially, screening participation rates across our country vary significantly: people living in the most deprived communities have much lower rates, which correlates with higher mortality rates⁵. This stark reality motivated us to understand the challenges and identify what it would take to encourage more people to access lifesaving services – in turn bringing significant economic benefits.

We are sharing our research, with the aim of supporting stakeholders across the healthcare sector to improve screening uptake by focusing on the needs of the individual, while also making best use of limited resources.

Please note: The term 'priority populations' is used throughout this report to refer to individuals living in areas of high deprivation and ethnic minority groups.

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Dr Karen Kirkham Chief Medical Officer, Deloitte LLP

The cancer challenge

The increasing burden of cancer

Whether it is a family member, colleague or a friend, most of us know somebody who has battled with or is currently living with cancer. In fact, 50 per cent of our population can expect to be diagnosed with cancer at some point in their lives⁶.

People in the UK are more likely to receive a poor prognosis when diagnosed with cancer compared to other developed nations. Out of the 18 richest countries in the world, Britain has the worst five-year survival rates for three of the most common cancers and more cancer deaths than any other G7 country⁷. Furthermore, by 2040 the number of new cases is projected to increase by a fifth – meaning there will be around half a million new cases diagnosed each year⁸. According to Cancer Research UK, this is in part due to treatment delays and late diagnosis of cancers⁹.

As cancer clinicians we spoke to highlighted, the current trajectory and a 'do nothing' approach will lead to NHS health services becoming overwhelmed, with serious consequences. "If we do not get much more focused around prevention, none of our health economies are going to be able to sustain the increasing burden of cancer. This will be an even bigger challenge in the developed parts of the world, where the population is ageing quite quickly." Subject Matter Expert (SME) - Cancer Clinician

Why screening matters

Early detection through screening can dramatically improve patient outcomes and survival rates

Instead of waiting for noticeable symptoms or visible changes, screening involves proactively testing individuals across an entire population group to detect cancers before they become symptomatic.

This is vital because the earlier the NHS can identify potential cancers, the more readily they can be treated. Survival rates improve as a consequence. For example, 9 in 10, people with bowel cancer survive their disease for five years or more if diagnosed at the earliest stage (stage 1). If diagnosed at its latest stage (stage 4), only one in 10 people will survive for five years or more¹⁰.

Stark statistics for those in deprived areas

Concerningly, those living in the most deprived areas of England are less likely to participate in screening than those in the least deprived areas. In areas with the lowest screening uptake for bowel cancer, people are 30 per cent more likely to live in deprivation in comparison to areas with the highest screening rates (see table below). Breast cancer screening uptake can be as low as 10 per cent in some urban GP catchment areas (see maps to the right).

Those in more deprived areas have a 70 per cent higher chance of dying from a diagnosed cancer than those in wealthy areas. This is in part due to lower screening rates, which led to cancers being caught later¹¹.

Screening statistics at a glance	Breast cancer screening	Bowel cancer screening
National average screening rate 2022/23	64.6%	70.2%
Lowest screening rate by GP catchment area 2022/23	10%	10.5%
Optimal screening target for effectively reducing cancer mortality	80% ¹²	60% ¹³
Correlation between deprivation levels and areas with highest and lowest screening rates	15% more people live in deprivation in lowest vs. highest areas	30% more people live in deprivation in lowest vs. highest areas

Additional factors affecting screening uptake (Breast and bowel combined)

In areas with the **lowest** screening rate in England (average of 32%) 1 in 2 people live in rental accommodation

In areas with the **highest** screening rates (average of 77%) 1 in 4 people live in rental accommodation



Cancer screening uptake is as low as 10 per cent in some urban areas

Each dot represents a GP catchment area¹⁴ (everyone within that catchment who is eligible to be screened, not just those who are registered with a GP). The dark red dots show the lowest screening rates at GP level and dark green shows the highest rates.

Areas with higher levels of deprivation or more ethnic minorities correlate with lower rates of cancer screening uptake. Breast cancer screening is more negatively impacted than bowel cancer by these factors. Source: NHS data.



Areas of high deprivation typically have lower screening rates

This graph shows the screening uptake (as a percentage) across the 6,212 GP practice catchments in England, from areas of varying deprivation levels across England (determined by Deloitte IIQ's Deprivation Index). Deloitte's proprietary Deprivation Index leverages a wide variety of market-leading data sources –including income, personal equity, financial health, locational context and education – to drive a composite scoring methodology refined by Deloitte to generate the most accurate, up-to-date view of deprivation across the UK.

Of the 6,212 GP catchment areas, these have been grouped into five bands based on screening uptake. Each band is represented by a dot.

Please note: It is important to consider this relationship has been analysed in isolation and co-correlation with other explanatory variables will exist. Whilst this deprivation is statistically significant and highly indicative, additional relevant IIQ data sets should also be considered when understanding causal relationships.

For example, it is proven that language skills, ethnicity and housing context also play important roles in screening uptake.

The IIQ analytics platform was created by Deloitte with the aim to simplify complex data and unlock its power for businesses. The IIQ team combine signals, science and data to accelerate and inform better strategic decisions. Working extensively across all industries they drive market and consumer intelligence, support successful growth strategies, market and commercial due diligence, and customer lifetime value. The IIQ analytics platform draws on multiple data sets including census data to provide a whole population view.

Potential for huge economic benefits

There are significant benefits of early diagnosis in terms of patient outcomes. From a health economic perspective, there are also financial gains for NHS England by treating cancers at an earlier stage.

With a specific focus on understanding health inequalities, the IIQ platform was used to model the potential financial impact of increasing screening rates for low-participating groups within specific GP catchment areas to match the average screening rates for England (i.e. the 64.6 per cent rate for breast cancer¹⁵, and 70.2 per cent rate for bowel cancer¹⁶).

Using a combination of publicly available and proprietary data sources, we carried out scenario modelling across two million people for breast cancer screening and 4.7 million for bowel cancer screening, within relevant age and sex groups. We then calculated the financial savings associated with increasing screening participation to drive up early detection, which would reduce the overall cost of treatment and number of appointments. Our modelling explored two different scenarios:

• GP catchment areas with the highest concentration of priority population groups.

• GP catchment areas with the highest concentration of ethnic minorities (irrespective of level of deprivation).

Based on the modelling of the scenarios above, we believe that interventions targeting these groups could unlock £39–44 million in productivity gains per screening cycle across bowel and breast screening alone (see appendix for more details). In light of the financial pressure being faced by the NHS, this would indicate a strong health economic rationale for change.

Although not in the scope of this report, the improvement in disability-adjusted life years (DALY) and societal productivity gains associated with finding and treating cancer earlier offer significant additional benefits beyond this economic modelling of NHS capacity. Needless to say, such benefits would add further weight to a case for change.



Barrier to access

So, why are priority populations not taking part in screening?

Having identified low screening uptake and inequalities around diagnosis, we wanted to find out why priority populations are less likely to access and participate in breast and bowel screening – and what it would take to change this.



We found five main barriers:

- 01: Insufficient collection of and access to data prevents screening that is more targeted
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 - 02: People want information about screening, but it is not getting to them – leading to confusion and misconceptions



03: Invitations and screening kits are not reaching everyone



- 04: Practical and cultural challenges prevent some who are willing from being screened
- 05: Fragmentation across
 health services means that processes are not optimised and accountabilities are not clear

01: Insufficient collection of and access to data prevents screening that is more targeted

Existing screening programmes in England are designed to look at whole population segments, around established demographic criteria¹⁷. Except for lung cancer, the programmes primarily use a genderand age-based invitation strategy. In the case of breast cancer screening, invites are sent to females aged 50–70¹⁸. For bowel cancer screening, the age range is 60–74 (expanding to include 50–59 years olds by 2025), for males and females. Invites are sent at a regular interval to everyone within the eligible bracket (every two years, by 2025)¹⁹.

While this universal approach has advantages, gains could be made if further targeting was used, based on risk stratification and demographics. For example, the NHS is implementing the NHS Jewish BRCA Testing Programme which is a genetic test for those who are more at risk of breast and ovarian cancer; smoking status is factored into lung cancer screening²⁰.

"We all know one size fits all doesn't fit. If the system has the flexibility to meet different populations, then that would solve a lot of problems."

SME - Clinical Oncologist

Advances in diagnostics theoretically make it possible to focus on precise population groups in this way. Yet ongoing issues around data collection, storage and access across multiple systems were cited by SMEs as key obstacles in the way of putting it into practice.

"A key blocker for rolling out lung cancer screening is knowing people's smoking status"

SME - Health Equity

NHS England and Integrated Care Boards (ICBs) are already making efforts to address the issues. Programmes such as the Federated Data Platform²¹, alongside integrating data sets from secondary care, aim to improve population health management.

However, experts say it is still difficult to gain visibility of data, due to concerns around GDPR and data sharing, and the technical challenges of getting legacy IT systems to talk to each other. One SME in Health Equity shared that despite having "really rich data", the NHS still struggles to access it to "enable evidencebased risk stratification".

Insight

Deprivation increases health inequalities, but relevant data isn't captured

Adding a more targeted screening programme would benefit those at higher risk of getting cancer, as well as the priority populations who are currently less likely to participate.

Achieving this relies on better data. Yet our research revealed that it is difficult to capture comprehensive data for communities living in areas of high deprivation. For instance, highly mobile cohorts are less likely to establish a relationship with a GP, which means data on screening uptake, smoking status or other risk factors are not captured. We also heard concerns around the level of participant trust in health services, an unwillingness to share information and challenges with language – all of which affect data collection (See also barrier 4, p19).

Even when people do have a relationship with a primary care giver such as a GP, data on deprivation levels and ethnicity is not necessarily captured.

"A lot of data in our organisation isn't routinely cut by things like ethnicity and deprivation at the moment." SME - Public Health

O2: People want information about screening, but it is not getting to them – leading to confusion and misconceptions

The NHS LTP for Cancer and National Screening Committee principles²² highlight the importance of raising awareness of cancer and supporting the public to make an informed choice on screening. The current approach to achieving this includes campaigns such as National Cancer days²³.

Our research shows that people are interested and open to learning. However, there is a lack of clarity on what screening is, what it involves, its benefits, and why the eligibility criteria have been determined in the way they have. When asked what would encourage people to go for screening, "better communications as to why it is important to take a test and if I need to take it" emerged as a top response in our survey.

We heard a need to adapt the mode and regularity of communications for priority populations, as well as better information about risk factors, to promote the frequency of monitoring.

We explored this further in our ethnographic research, which highlighted a range of views and misconceptions about screening. One participant asked, "Is it better if I catch it [cancer] earlier?" (Male, 50s, Birmingham). Others were unclear about the significance of screening, "I don't need to go for bowel screening as I eat a healthy diet," (Female, 60s, Hackney). People also assumed screening ought to take place after the onset of symptoms. For example, participants talked about going for screening when they see "blood in their urine," (Female, 30s, Birmingham).

Even though screening is managed through regional screening offices rather than by GPs, with the exception of cervical screening, our research revealed the important role between the GP and an individual's decision to take part in screening. Individuals shared expectations that GPs would offer advice before screening, to follow up with reminders and talk through results upon receipt.

"So, I got my phone, and I researched it on google, and it gave me a little bit of information but again it didn't make sense. So I called my friend for advice, and she told me to see my GP." Female, 50s, Birmingham

Insight

Language barriers and illiteracy are challenges facing the priority population groups.

Our quantitative analysis also revealed that screening uptake is lower among those with English as a second language.

When visiting medical and community centres in Birmingham, participants shared experiences of only recognising their date of birth and/or name on screening invitation letters, relying instead on family members to interpret the leaflets for them.



03: Invitations and screening kits are not reaching everyone

Currently, invitations for breast cancer and bowel cancer screening FIT test kits are posted in the mail directly to those eligible.

However, we learned that these invitations and kits are not getting to priority populations effectively. For example, many of the age-eligible individuals we engaged with did not receive, or did not remember receiving, their screening invitation letters. Many participants in the bowel cancer focus groups had not received a test kit in the mail and stated that this was the reason for not taking part in screening. Furthermore there is no systematic way to record returned mail and collect updated address details.

"I have not been invited since I have been 50 though, still waiting at 52." Woman, 50s, Hackney

"There are different ways to find people – email, text, and post. It costs very little but it's not being done. Are we convinced we are doing that across all screening programmes across the country? The answer is almost certainly no." SME - Cancer research



Insight

Temporary housing and digital exclusion increases health inequalities

At a community centre in the borough of Hackney in London, we heard that 80 per cent of residents live in rental accommodation or temporary housing. Receipt of screening invitations for such highly mobile populations is reliant on them manually updating their details, often via an online form.

Yet those living in areas of high deprivation are also more likely to face digital poverty, as they are unable to afford access to devices or connectivity²⁴. For example, research undertaken by the Hackney community centre flagged that 37 per cent of the population did not use digital technologies and many preferred accessing information via non-digital channels. Digital skills were low - affecting, for example, form filling.

As a result, there is a strong likelihood that mail never reaches highly mobile populations, since postal addresses are not kept up to date.

Members of this cohort are often not registered with a GP practice and do not have a relationship with other primary care givers. This means that they miss out on – key sources of information and support when it comes to screening.

Our quantitative modelling highlights that in areas with the lowest screening rate in England (average of 32%) 1 in 2 people live in rental accommodation. In areas with the highest screening rates (average of 77%), only 1 in 4 people live in rental accommodation. This is significantly below the optimal national target for both breast and bowel cancer screening (80 per cent and 60 per cent respectively)²⁵. (See chart on the next page).



The uptake of breast and bowel cancer screening is lower in areas with high levels of residents living in rented accommodation



The graph above shows the screening uptake (as percentage) across GP catchments (6,212 in total) in areas of varying rates of residents in rental accommodation across England.

Means testing methodology has been used to identify key drivers for screening uptake performance. Of the 6212 GP catchment areas, these have been grouped into five bands based on screening uptake. Each band is represented by a dot.

Please note: It is important to consider this relationship has been analysed in isolation and co-correlation with other explanatory variables will exist. Whilst this relationship is statistically significant and highly indicative as an explanatory variable, additional relevant IIQ data sets should also be considered when understanding causal relationships. For example, it is proven that language skills, ethnicity and housing context also play important roles in screening uptake.

N[™]_𝒫 04: Practical and cultural 🗐 challenges prevent some who are willing from being screened

Booking and travelling

Even if individuals successfully receive and understand screening invitations, there are additional barriers to participation. Being offered a suitable time and ease of travel were highlighted as priorities for breast cancer screening, underscoring the need for an easy and accessible screening process, with more choice on timing and location.

While our research uncovered some great initiatives, such as hosting screenings at local retailers, discussions also shed light on several obstacles. These include being sent to breast screening locations that are too far away or not accessible by public transport; the prohibitive cost of travel; and inadequate support for those with disabilities or health conditions.

"I was sent to Rugby, which was too far... how am I meant to go to Rugby? I'm not going to Rugby." Female, 50s, Birmingham

"They don't know whether you drive, but they give you a map of a carpark." Female, 60s, Birmingham

From our survey of more than 50 women in Hackney, the majority of those eligible for breast cancer screening said they are deterred from attending their appointment because it is hard to find a time that is suitable.



Highlights from the survey question: 'If you had a magic wand - what would you change to support you to go to a breast cancer screening appointment?'

Responses	Agree
1. Make it very easy, like a walk-in or drive through	82%
2. To take place more locally (perhaps at the GP Surgery or nearest clinic)	76%
3. Very near me and short waiting time	76%
4. Flexible appointment slots over a few weeks or a month possibly	71%
5. More information, & to be contacted regarding suitable times, rather than just being booked in without any contact	71%
6. Having a cure for cancer	71%
7. Appointment time	65%
8. More information about the risks of not having one	59%

Above are the top eight responses submitted and voted on by 50+ women eligible for breast cancer screening and living within priority areas for screening uptake (Hackney, London)

Competing priorities

Competing priorities can overshadow the perceived urgency of preventative measures like screening. We learned from single mothers and carers in Birmingham that their health was *"not important"*. A mother whose child had learning difficulties explained the challenges she faces with *"planning ahead"* and how prioritising her health was *"impossible"*.

Cultural sensitivities

There are also cultural sensitivities that can put people off going for screening. When we spoke with a group of people of South Asian ethnicity, they highlighted that screening was considered an act of self-care and seen as "selfish". In addition, a cultural emphasis on privacy can have an impact.

"The priority is family and then looking after the home. I have been to workshops on self-care and it's important, but it's seen as selfish, and screening is seen as self-care." Female, 50s, Birmingham "Some people don't know, and others don't want to know. It stems from shyness and privacy. Privacy is important in our culture." Male, 60s, Birmingham

Furthermore, distrust of health services can be prevalent within some communities, along with "scepticism towards Western medicine" (Male, 60s, Birmingham). There can also be challenges around workforce ethnicity and gender diversity, with individuals wishing to interact only with those of the same ethnic origin or gender. All of these impact engagement with broader health services.

"We've seen how some individuals will only respond to the screening applications if their GP is of the same ethnicity." SME - Clinical Oncologist

05: Fragmentation across health services means that processes are not optimised and accountabilities are not clear

Screening programmes face several challenges caused by the fragmentation of health services. Shifts in commissioning boundaries and restructuring have disrupted the healthcare industry, as providers and leaders adjust to the new landscape of Integrated Care Systems (ICS)²⁶. Integration of primary and secondary care in the cancer pathway is made difficult due to challenges around sharing information and delays²⁷. These issues are also symptomatic of a wider challenge around the short-term investment in health care provision²⁸.

"It's very patchy and decision making is very slow, and change is very slow. Getting new thinking on the table is really hard because people just focus on the problem today and don't look at how to fundamentally change to solve tomorrow's problem."

SME - Health Services Manager

Similar statements were echoed in relation to funding mechanisms. Short-term funding cycles are found to disincentivise a coordinated approach toward prevention and early intervention for cancer screening programmes²⁹.

"Personally, I think funding is a key challenge and the continual changes in who owns the finances. And I think the 12-month cycles that the NHS does, does not encourage people to think beyond 12 months." SME - Health Services Manager "It's about distributed leadership. We do have KPIs within our own organisation but that isn't always enough. But where is the overall system and leadership that says we're going to do something about this? Who's really held to account on it if we fail to address issues that require system wide action." SME - Public Health Specialist

Additionally, a lack of accountability is cited as a barrier to moving towards a more cohesive approach for prevention programmes such as screening and health protection.



How to lift participation

With improving health equity a priority, our research found four key opportunities to break the identified barriers and increase screening participation:



01: Unlock existing NHS data for a targeted screening approach

- 02: Empower the public through omnichannel communications
- **03: Design for inclusion, design for all**
- 04: Create a collective plan for change

O1: Unlock existing NHS data for a targeted screening approach

In addition to the current system of gender/aged-based eligibility for screening, better use of existing NHS data would unlock a more targeted approach, based on risk and demographics. Health status or family history could be factored into screening programmes, with those at higher risk monitored more regularly. Gaining more visibility will require three key steps:

Collect and collate data:

Collating and integrating relevant data sets nationally would include bringing together comprehensive, high-quality data from GP and hospital records, alongside other data sources like wearables. The NHS could gain further insights by linking data from health protection and prevention services, for example Human papillomavirus (HPV)-based cervical screening and vaccinations. Existing programmes such as the Federated Data Platform (FDP) initiative could be harnessed to accelerate such efforts.

Uncover hidden populations:

Identifying those who have not taken up services – not just counting those who have – is crucial. There needs to be a reliable population reference dataset in order to ensure no one is left behind.

Capturing better geodemographic data would enable more effective identification of specific population groups with low uptake.

Adopt a risk-based strategy:

The current Core20PLUS5 approach of identifying priority population groups is a good first step towards increasing screening rates. It can be taken further, as we found through similar work we supported with population groups in New Zealand and Canada (see case study on page 24 and 27).



Case study

Tackling inequality in New Zealand through a risk-based approach

Data in New Zealand showed that Māori and Pacific population groups had significantly higher mortality and worse cancer outcomes than the rest of the population. The national bowel screening programme introduced specific outreach and follow-up processes to bring these priority population groups into the screening programme more successfully. The screening entry point was also lowered from 60 years to 50 years for Māori and Pacific populations, in recognition of their significantly higher mortality rates ³⁰.

Community outreach involves engaging all family members in a household with information about relevant cancer screening programmes or immunisations. For example, FIT kit invitations can be supplemented with an HPV testing invitation for another member of the household or information about vaccinations, once the various systems have been brought together. New Zealand has deliberately consolidated different cancer screening programmes onto the same platform and invested in a universal engagement system, that can serve screening as well as vaccination and other programmes.



O2: Empower the public through omnichannel communications

Empowering individuals through education and tailored communication can have a positive impact on screening uptake.

Targeted education

Targeted education programmes can help improve the understanding and awareness around cancer risks, as well as screening and its impact. Informing the public in a more focused way about what they are entitled to and the reasons for screening (for example, based on individual risk) would enable them to make informed decisions about using screening services.

Omnichannel engagement

Given the variety of factors that influence an individual's ability to access, engage and understand information, an omnichannel approach is critical. We know there is a challenge of presenting information digitally in a variety of languages and formats, therefore using multi-media tools with varying touchpoints is vital. Channels could include SMS, email, personalised letters, social media, billboards, TV ads and more.

Digital tools

For the digitally savvy, tools like the NHS App could be better leveraged to make in-roads around cancer screening. It could emulate applications used in other countries, that offer features such as:

- Scheduling and booking functionality, including an ability to synchronise appointments to a personal diary or scheduling tool
- Simple educational information, helping to build initial awareness through static content as well as access to video / multi-media content or an 'at risk' calculator
- An eligibility checker, advising proactively on all public health or prevention services people are entitled to, based on National Institute for Health and Care Excellence (NICE) guidelines
- Consent granting features and functions for family members and carers
- Supporting tools for managing cancer once treatment processes are initiated

- Information about local health and social care services or support groups
- Feedback loops to collect outcomes from services (including treatment)

Delivering an app experience similar to a physical 'health passport' could help people engage with a broader range of tailored services, as one expert suggests:

"Having a digital screening passport as a reminder of when individuals should look to be screened for particular diseases and cancers is something which I would see individuals of varied age ranges interacting with. Younger patients may find this useful given the change in attitude to 'how I optimise my health and remain as healthy as I can for as long as possible'. This change of culture and improvement in health education requires novel screening interventions to go with – likely coming from the digital space."

SME – Bowel cancer

Needless to say, the NHS App and digital channels are not a panacea, considering how digital proverty is significant amongst those hardest to reach.

Other countries who have used assisted channels have provided support to access digital resources. For example, offering a call centre for assistance with online health resources and a broad array of tasks: from booking a vaccine appointment through to queries about the website or simple enrolment inquiries. Assistance with access can also be enhanced through agreements with telecommunication companies whereby certain health apps and resources can be used free of charge and do not consume data on pre-paid phones.

Wider network of support

We can relieve pressure on the NHS by highlighting the responsibility every member of the public and non-healthcare settings can play in promoting the value of screening.

Recognising the power of family and community in motivating people to action, programmes could move beyond the individual to consider a whole household, friendship circle or community group. Communication could also come from employers when individuals reach screening age, or from their pension provider when they retire – keeping screening and its relevance top of mind.

Countries that have introduced community out-reach services and door-to-door campaigns to their public health and prevention services, have found that a whole-of-household approach can be very effective (i.e. not focused on one single screening type or cancer type, but covering multiple services).



Designed by the public... How could things look different?

We asked people what it would take for them to go for screening. Here is what we heard:

Change the place, change the conversation

What if breast cancer screening was an occasion to chat and connect over a coffee?

"Make it friendlier, a nice cosy inviting environment with free drinks."

What if screening could be something you want to go to? A space to chat, have a coffee. Screening programmes or awareness campaigns could take place in spaces such as faith centres, leisure centres or even a barber – with individuals encouraged to meet up, schedule appointments and participate in screening. Participation could even be packaged with an entertainment experience, such as attending a free film screening.



What if screening was a social activity?

"Maybe if you did it in pairs, like you and a friend have consecutive appointments."

What if bowel cancer tests could be carried out with a buddy pledge, or a breast screening visit could be booked in pairs? Participants could tap in to let their loved ones know they have participated in cancer screening and encourage them to go too. Participants could also pay it forward, by sharing information with a friend about the benefits of screening.

03: Design for inclusion, design for all

Inclusive design aims to remove barriers by creating solutions that are accessible and usable by everyone.

Meeting the needs of the individual

Solutions aimed at reaching low-uptake priority population groups must meet them where they are. Factors such cost, logistics, digital exclusion, cultural sensitivities and language barriers must be taken into account.

For example, screening programmes could allow participants to select their preferred location and appointment times, or sign up with a friend or family member. Ensuring translation of information, accessible communication and engagement with local community leaders would all help to overcome obstacles.

Shared learning and practice nationwide

Our research revealed that initiatives and understanding on how best to engage with priority populations do exist but are not yet adopted nationally. NHS support to share learnings and provide investment for inclusive approaches would help to roll programmes out more widely.

Case study

Supporting those without a permanent address

Norfolk and Waveney's 'Trusted Community Voices' initiative³¹ supports targeted outreach in the community, engaging those with a low uptake of screening on a regular basis. In the case of those without a permanent address, the programme provides proxy addresses and distributes FIT kits through centres where community engagement and trust are already high and established.

Inclusive design to improve engagement with bowel cancer

Work we undertook with Eastern Health Care in Canada identified that a larger portion of FIT kits were returned spoilt and unusable from certain tribes amongst First Nation people. So they adapted the approach. Through engaging with tribal leaders and the local community, the explanatory pamphlet for how to use the test, including all the pictograms, were changed. This resulted in a rapid improvement in uptake.

O4: Create a collective plan for change

The Long Term Plan for Cancer sets out a number of ambitions but more decisive action is needed to achieve them. There are opportunities to redesign the future of screening by developing a refreshed Cancer Strategy – rethinking the way those in the health sector engage with the topic, and how information is collected, shared, analysed and acted on. Moving from ambition to action will require a collective approach to change.

Accountability and leadership across the health system

Given the multiple actors that play a role in the screening process, distributed leadership and clear accountability are necessary to improve outcomes. Regional screening teams, ICSs, GPs and VCSE sector should all be given specific actions and responsibilities.

Compelling case for change

Implementing change requires more than just communications and education. It has to start with a compelling reason – for clinicians, NHS system leaders and the public. The Cancer Strategy and action plans need to articulate a vision and drivers for change.

Building a movement

Change at the national level is difficult and cannot be achieved with a command-and-control mindset, or with directive approaches to change management. It requires the orchestration of various collaborators across the eco-system – including charities, public health and primary care – to localise screening programmes.

Health equity at the heart

Involving individuals from priority populations in research and shaping priorities, while also ensuring the plan is translated into different languages, will ensure that health equity is given priority.

Case study

Embedding indigenous research and evaluation methods as part of the national cancer plan in Australia

In Australia, priority individuals and communities have historically been overlooked in cancer research and evaluation. The National Aboriginal Community Controlled Health Organisation (NACCHO) has set out a commitment to change this in their Cancer Plan³²:

- to ensure cancer research and evaluation focuses on priorities identified and led by Aboriginal and Torres Strait Islander Communities
- to increase the number of Aboriginal and Torres Strait Islander academic scholars and their access to research infrastructure.

Recognising the diversity of Australia's population, the national cancer plan has been published for a multi-cultural nation in 10 different languages. Participation and access for equitable screening | Breaking down barriers to cancer screening

Future of cancer screening

Continued advances in science and technology offer great hope for progress. New diagnostic tests and screening approaches are emerging that are less invasive and will help to identify cancer at its earliest possible stage. Furthermore, new genetic drivers of cancer are being identified and genetic tests are becoming cheaper and faster.

As a result, healthcare professionals will be able to identify more individuals at risk of developing cancers. Enabling them to receive a vaccine or therapeutic treatment earlier will make a difference in the lives of countless individuals and their families.



Housing

Less inclusive



A call to action

Despite scientific advances, the barriers to participation identified through our research will need to be addressed – from lack of trust in health services, to challenges understanding health information and not having the capacity to engage in preventative health. Even with less invasive and at-home screening options, the postcode lottery will continue without inclusive design of screening programmes and improved visibility of data.

To overcome these challenges, screening programmes need to keep pace with science by focusing on designing and delivering services that are accessible to all, regardless of background or life experience. Data-driven insights and enhancements in communication would enable a more targeted and proactive approach. Individuals would feel more empowered, capable of managing their own health and overall wellbeing. Such changes would help the NHS to adapt screening programmes towards a wellnessdriven health model, moving away from a medical model.

Deloitte will continue to serve health clients around the world with this important challenge. We look forward to playing our part by sharing insights and research on these important issues.



Achieving this through collective action, we can improve outcomes for screening programmes: saving money in the NHS, increasing health equity and – most importantly – saving lives. Participation and access for equitable screening | Breaking down barriers to cancer screening

Appendix

Our approach

To develop a comprehensive and human-centred view of the barriers to screening participation in the UK, Deloitte conducted a study that engaged stakeholders at both the system and participant level. Alongside qualitative research, inhouse quantitative analytics and modelling were applied to uncover patterns and facilitate our analysis.

The research focus

The research primarily focused on understanding engagement and perceptions around bowel screening and breast cancer screening, given high mortality rates and the inequalities in screening uptake in the UK.

- Breast cancer is the most common cancer in the UK, the fourth most common cause of cancer death (accounting for seven per cent of all cancer deaths), and yet 23 per cent of breast cancer cases are preventable³³. Concerningly, breast cancer rates in the UK have increased by 24 per cent since the 1990s, but screening coverage has dropped significantly, from pre-COVID levels of 77 per cent to 65.3 per cent in 2022³⁴.
- Bowel cancer is the second most common cause of cancer death in the UK (accounting for 10 per cent of all cancer deaths)³⁵. Incidences of bowel cancer have historically been highest in areas of high deprivation.

Methodology

SME interviews

In-depth interviews were conducted with healthcare professionals and key stakeholders across NHS England, UK Health Security Agency (UKHSA), Macmillan and Cancer Research, to uncover system-level challenges, and strategies around screening programmes.

User research

Ethnographic research was conducted across four community settings with over 80 people in areas of low uptake of cancer screening. The groups engaged also ranked high on the Index of Multiple Deprivation (IMD).

Live online focus group

An online focus group was conducted with 116 individuals eligible for breast and bowel cancer screening across the UK. Twenty per cent of the participants were recruited from areas of high deprivation and/or from minority ethnic groups associated with lower levels of attendance for screening. Recruitment focused on high priority population groups living in areas with the lowest screening uptake in the country (Birmingham for bowel cancer; Hackney, London for breast cancer).

Quantitative modelling scenarios and calculations

• Deloitte's IIQ data and analysis platform was used to identify locations with the highest concentration of priority population groups and ethnic minorities within GP catchments based on expanded

Modelling Potential Gains

census, health and social data sets that we have integrated. We used this enhanced data set to:

- Identify those within the eligible cohort and sub-segment of the general population with low participation rates, including both priority population groups and ethnic minorities.
- Determine the number of individuals within the eligible age range, using 50–70 for breast cancer and 50–74 for bowel cancer (based on expanded eligibility for screening by 2025).
- Calculate the implication of increasing screening invitation uptake for each cohort to match the UK average (64.6 per cent for breast cancer³⁶ and 70.2 per cent for bowel cancer)³⁷.
- Calculate the cost savings associated with stage 1 and 2 treatments (£6,665 breast/£5,100 bowel treatment vs stage 3 and 4 (£17,195 breast³⁸/£18,750 bowel treatment)³⁹.
- (for breast cancer only) Estimate the number of treatment appointments which could be freed-up and help to re-deploy precious NHS resources, based on fewer appointments required for treatment at stage 1 and 2 treatments vs stage 3 and 4.
- We assumed a 0.25 per cent cancer detection rate for bowel cancer⁴⁰ and 0.87 per cent rate for breast cancer amongst additionally screened people, to isolate those patients who would have already been diagnosed through existing efforts⁴¹.

Scenario modelling

Based on our assumptions, we conducted two scenario models for both breast and bowel cancer screening for the two population cohorts.

Scenario 1: Moving cancer screening participation rates for priority population groups up to the national average for both breast and bowel cancer.

Deloitte's IIQ platform identified GP catchment areas with the highest concentration of priority population groups. This scenario includes two million people for breast cancer screening and 4.7 million for bowel cancer screening within relevant age and sex groups. Based on our assumptions, we believe that interventions targeting priority population cohorts could enable the NHS to unlock more than £39 million in productivity gains per screening cycle across breast and bowel cancer screening programmes.



Scenario 1a:

Targeting Core20PLUS5 populations to increase screening rates to the national average (Average Core20PLUS5 screening rate = 52.5 per cent vs. England average = 64.6 per cent)

19.5M

Total population in locations with highest concentration of Core20PLUS5

2M

Core20PLUS5 population eligible for breast cancer screening (female 50-70)

£20M

Cost savings for NHS based on treatment at earlier stage

1,958 Additional cases of cancer identified

Scenario 1b:

Targeting Core20PLUS5 populations to increase screening rates to the national average

(Average Core20PLUS5 screening rate = 58.7 per cent vs. England average = 70.2 per cent)

19.5M

Total population in locations with highest concentration of Core20PLUS5

4.7M

Core20PLUS5 population eligible for bowel cancer screening (male and female 50-74)

£19M

Cost savings for NHS based on treatment at earlier stage

1,362 Additional cases of cancer identified

Scenario 2: Moving cancer screening participation rates for ethnic minority populations (irrespective of level of deprivation) up to the national average for both breast and bowel cancer.

Deloitte's IIQ platform identified GP catchment areas with the highest concentration of ethnic minority populations. This scenario includes 1.9 million people for breast cancer screening and 4.4 million for bowel cancer screening within relevant age and sex groups.

Based on our assumptions, we believe that interventions targeting ethnic minority population groups could enable the NHS to unlock more than £44 million in productivity gains per screening cycle across breast and bowel cancer screening programmes.



Scenario 2a:

Targeting ethnic minority populations to increase screening rates to the national average (Average ethnic minority screening rate = 50.9 per cent vs. England average = 64.6 per cent)

19.4M

Total population in locations with highest concentration of ethnic minority

1.9M

Ethnic minority population eligible for breast cancer screening (female 50-70)

£24M Cost savings for

NHS based on treatment at earlier stage

2,238 Additional cases of cancer identified

Scenario 2b:

Targeting ethnic minority populations to increase screening rates to the national average (Average ethnic minority screening rate = 56.7 per cent vs. England average = 70.2 per cent)

19.4M

Total population in locations with highest concentration of ethnic minority

4.4M

Ethnic minority population eligible for bowel cancer screening (male and female 50-74)

£20M

Cost savings for NHS based on treatment at earlier stage

1,483 Additional cases of cancer identified

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We have both a responsibility and an opportunity to close the gap around cancer screening.

Contact us to discuss how we can tackle this challenge together.



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