

An Inquiry into the current state of the breast cancer screening programme in England

July 2023



**All-Party Parliamentary Group
on Breast Cancer**

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1. Foreword

We are delighted to present the final briefing of the All-Party Parliamentary Group (APPG) on Breast Cancer's inquiry into the breast screening programme in England. We are grateful to the patients, clinicians, charities, and MPs who took the time to contribute evidence and testimony to the inquiry.

Over three million women are eligible for breast screening in England every year, and a third of all breast cancers in women are found through the national screening programme. It is estimated that in the UK, around 1,300 breast cancer deaths are prevented every year as a direct result of the work the programme does, which is why it is an essential tool to improve women's health.

However, the pandemic gravely impacted the programme. Breast screening services were brought to a halt in England during the first peak of the pandemic and restarted in the summer of 2020. This pause, along with the need to fully implement the recommended improvements from Prof Sir Mike Richards' 2019 review of adult screening programmes, has seriously hampered the breast screening programme's potential to save even more lives from breast cancer.

The briefing outlines the key insights and recommendations from the APPG's inquiry for ensuring the efficiency and success of the breast screening programme. We are particularly concerned with the progress in recovering the programme's performance and the unintended consequences of recovery decisions on uptake and health inequalities. We also look into the potential opportunities to improve family history services and screening for women at increased risk of breast cancer, as well as how the programme needs to change to ensure it is fit for the future.

Each of us has a close connection to breast cancer – and we know just how vital early diagnosis of breast cancer is for survival, and the important role the breast screening programme plays in achieving that. On behalf of all members of the APPGBC, I hope that the recommendations in this briefing contribute to the government's ambition to achieve world-class outcomes for cancer and improve women's health.

Craig Tracey MP

Chair of the All-Party Parliamentary Group (APPG) on Breast Cancer



2. Addressing uptake and health inequalities

The Breast Screening Programme was effectively paused in England at the height of the pandemic and, despite the hard work of NHS Staff, has yet to fully recover. After reaching a record low uptake of 62% in 2020/21, the latest data for 2021/2022 showed no significant improvement¹.

The situation is even worse for some, especially those from underserved communities. Pre-COVID women from more deprived areas and some ethnic minority backgrounds were already less likely to attend screening, be diagnosed early and to survive, and there is a real risk that this gap has now widened.

Since the pandemic started, in England, nearly one million fewer women were screened for breast cancer².

Tragically, a recent study suggests that the disruption to screening during COVID could lead to up to an additional 680 women in England dying from breast cancer over the next decade³. The actual number of additional deaths will depend on how quickly screening services can catch up, stressing the importance and urgency with which the breast screening programme is fully and equitably recovered.

2.1 Open Invitations

The APPGBC heard evidence from NHS England (NHSE) and healthcare professionals on how the use of open invitations could be inadvertently undermining the government's goals to increase early cancer diagnosis and address the health disparities currently seen in cancer diagnosis and subsequent outcomes.

In England, from the end of September 2020, most women were sent 'open invitations' requiring them to actively call and make an appointment for breast

screening, rather than being given a timed appointment. The open appointments system tends to use the screening resource more efficiently in that fewer appointments are missed. However, it also comes with significant disadvantages.

Previous research in other settings and screening programmes has shown that the uptake of services which use open invites is significantly lower than those given timed appointments, something which could have accelerated the persistent decline seen in breast screening uptake.

One study⁴ looked at the effect of open invitations on early diagnosis of breast cancer in London and found that the post-COVID breast screening uptake in London dropped from 62% to 46% with the introduction of open invitations during the pandemic, resulting in fewer cancers being detected.

Many women do not have the option to schedule or rearrange their appointment online. And some women who get an open invite have reported not being able to get through to their local unit to

¹ NHS England (2023). NHS Breast Screening Programme, England 2021-2022. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/breast-screening-programme/england---2021-22> [Accessed June 2023].

² NHS England (2022). NHS Breast Screening Programme, England 2020-21. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/breast-screening-programme/england---2020-21> [Accessed June 2023].

³ Duffy, S.W., Seedat, F., Kearins, O. et al. The projected impact of the COVID-19 lockdown on breast cancer deaths in England due to the cessation of population screening: a national estimation. *Br J Cancer* (2022).

⁴ Duffy SW, Hudson S, Vulkan D, Duffy TE, Binysh K. Recovery of the breast screening programme following pandemic-related delays: Should we focus on round length or uptake? *Journal of Medical Screening*. 2022;29(2):99-103.



arrange screening or being told that there were no appointments available.

Furthermore, there is no requirement for services to follow up with women who do not arrange or go to their breast screening appointment.

2.2 Health Inequalities

The APPGBC also heard from NHS England that the Health Equity Audit⁵ completed by NHSE prior to the implementation of open invitations did not collect data on or assess the potential impact on women from ethnic minority backgrounds or those living in the most deprived areas, groups which were already less likely to attend breast screening pre-pandemic.

2019 NHS data⁶ found that fewer women in the most deprived areas had their breast cancer diagnosed early (stage 1/2), compared to women diagnosed the least deprived quintile.

Women from ethnic minority backgrounds are also less likely to attend breast screening compared to White women in the UK⁷, with uptake being particularly lower in South Asian women⁸.

Current data shows that although black women are less likely to be diagnosed with breast cancer overall, they are significantly more likely to be diagnosed with later stage breast cancers, which

are harder to treat successfully. Black women are more likely to be diagnosed with more advanced breast cancers and harder to treat breast cancers, such as triple negative⁹. As many as 25% of Black African women and 22% of Black Caribbean women are diagnosed with stage 3 or stage 4 breast cancer, compared to 13% of White women¹⁰.

Later stage diagnosis is a significant contributing factor to the poorer survival outcomes experienced by women from ethnic minority backgrounds¹¹. There also exist serious concerns that the current system does not collect enough data relating to equalities in sufficient detail to fully understand the impact different invitation models.

2.3 Effective Recovery

It is vital that the short-term focus on sending out delayed screening invitations and maximising efficiency does not jeopardize the ambition to improve early diagnosis of cancer and tackle long-standing inequalities.

It is concerning that despite the remaining shortfall in breast cancer diagnoses, and the record low uptake in the breast screening programme, that there have been no plans for a national campaign to promote breast screening, as those recently run for bowel and cervical cancer screening^{12,13}. This service

⁵ Office for Health Improvement & Disparities (2020). Health equity audit guide for screening providers and commissioners. Available at: <https://www.gov.uk/government/publications/nhs-population-screening-a-health-equity-audit-guide/health-equity-audit-guide-for-screening-providers-and-commissioners> [Accessed June 2023].

⁶ NHS England (2021). Case-mix adjusted percentage of cancers diagnosed at stages 1 and 2 in England, 2019. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/case-mix-adjusted-percentage-of-cancers-diagnosed-at-stages-1-and-2-in-england/2019> [Accessed June 2023].

⁷ Jack, R.H., Møller, H., Robson, T. & Davies, E.A. (2014). Breast cancer screening uptake among women from different ethnic groups in London: a population-based cohort study. *BMJ Open*, 4(10).

⁸ The health of people from ethnic minority groups in England. (2021). Kings Fund. <https://www.kingsfund.org.uk/publications/health->

[people-ethnic-minority-groups-england](#) [Accessed April 2021].

⁹ Bowen, R. L., Duffy, S. W., Ryan, et al (2008). Early onset of breast cancer in a group of British black women. *British journal of cancer*, 98(2), 277–281.

¹⁰ Ethnicity and stage at diagnosis. National cancer registration and analysis service data briefing. (2016). Public Health England and Cancer Research UK.

¹¹ Jack, R.H., Davies, E.A. & Møller, H. (2009). Breast cancer incidence, stage, treatment, and survival in ethnic groups in Southeast England. *British Journal of Cancer*, 100, pp. 545–550

¹² NHS England (2022). Life-saving campaign launched as NHS screening programme expands in the capital. Available at: <http://www.england.nhs.uk/london/2022/08/16/your-next-poo-could-save-your-life-life-saving-campaign-launched-as-nhs-screening-programme-expands-in-the-capital/>

¹³ NHS England (2022). New national cervical screening campaign launches – as nearly 1 in 3 do not take up screening offer. Available at:



should be more widely advertised, and it should be made clear that it is never too late for anyone invited into screening to take up their offer.

It is also concerning that, despite the £2.3 billion investment in the rollout of Community Diagnostics Centres (CDCs) set out in the 2021 spending review, mammography is not one of the core diagnostic services CDCs are required to offer and Integrated Care Systems (ICSs) are not able to use elective recovery funding to expand capacity in their local breast screening unit. It is important that breast screening units are supported in accessing the various recovery funding streams available to resource interventions that effectively drive screening uptake.

It is crucial that restoring and improving breast screening uptake is done urgently and inclusively.

As such, the APPGBC recommends that:

- **The government should set out the immediate actions that will be taken to help mitigate the damage the pandemic and the switch to open invites has done to uptake, including, but not limited to:**
 - **Committing to use the invitation model or models within breast screening that deliver the highest uptake levels and minimise health inequalities.**
 - **Delivering a national awareness campaign to promote breast screening, focusing on areas and communities where uptake is lowest.**
 - **Ensure community diagnostic centres (CDCs) are directed to provide, support, or promote breast screening services in their area as standard.**
- **The government should make breast screening uptake a core focus of their work on health inequalities, including, but not limited to:**
 - **Exploring permanently updating the way breast screening data is collected and published.**
 - **Making attending breast screening easier by offering more convenient routes into screening services and offering multiple opportunities to access screening.**

<http://www.gov.uk/government/news/new-national-cervical-screening-campaign-launches-as-nearly-1-in-3-dont-take-up-screening-offer>

“Nobody got in touch, and I was in panic. I did not have a contact at the new hospital and the people I called either did not know how to help or did not return my calls. I felt sure I had been forgotten about, slipped through the cracks.

They saw me a little over 18 months since my last appointment. The screening found two tumours in my left breast. Stage 2 in just 18 months and nothing to feel. So the screening saved my life.”

Oral evidence session 2, November 2022



3. Family History of breast cancer

Some people are increased risk of breast cancer due to their family history or genetics. We already have the guidance and the tools to find, test, and screen these women effectively, but local restrictions and a lack of national oversight means we are missing an incredible opportunity to diagnose breast cancer in at-risk women as early as possible.

While most breast cancer are not directly caused by inherited factors, women with a significant family history or a known genetic risk factor are at an increased risk of developing breast cancer¹⁴.

The level of increased risk for familial breast cancer depends on the number of cancers diagnosed in the family, which family members were diagnosed, the type of breast cancer, their age at diagnosis, and other factors like having Jewish ancestry. This information is used to categorise people as being at a normal, moderate, high, or very high risk of developing breast cancer.

NICE guidance recommends¹⁵ that women at increased risk undergo earlier, more frequent screening and potentially have access to risk-reducing treatment, like chemoprevention. For the small number of women at very high risk (for example those with harmful BRCA1/2 alterations), their routine screening is provided the national screening programme.

3.1 Identifying Women at Increased Risk

Between 5-6% of the female population could be at increased risk of breast cancer due to their family history, but as

few as around 1% are being managed in moderate or high-risk clinics¹⁶. We do not have the data to confidently estimate the number of people affected across the UK, but based on these figures, it is likely that there are thousands of women who are not currently aware of their risk level or accessing the services in place to support them.

The APPGBC heard that one reason behind this issue is that identifying at-risk women largely relies on women knowing about their family history and coming forward to their GP. As a result only a small proportion of eligible women are identified and referred to the relevant services. Reliance on self-identification is a barrier for women who are less able to raise their concerns, leading to inequalities in the referral to and uptake of genetic and family history services across different socioeconomic and ethnic groups¹⁷.

The APPGBC also heard that some GPs are often unaware of referral criteria or lack the time or knowledge to perform risk assessments, further limiting onward referral¹⁸.

Evidence provided to the APPGBC also showed how family history assessment is

¹⁴ Kuchenbaecker, K.B., Hopper, J.L., Barnes, D.R., Phillips, K.A., Mooij, T.M., Roos-Blom, M.J., Jervis, S., Van Leeuwen, F.E., Milne, R.L., Andrieu, N. and Goldgar, D.E. (2017) Risks of breast, ovarian, and contralateral breast cancer for BRCA1 and BRCA2 mutation carriers. *Jama*, 317(23), pp.2402-2416.

¹⁵ National Institute for Care Excellence. (2019). Familial breast cancer: classification, care and managing breast cancer and related risks in people with a family history of breast cancer. Available at <https://www.nice.org.uk/guidance/cg164/resources/familial-breast-cancer-classification-care-and-managing-breast-cancer-and-related-risks-in-people-with-a-family-history-of-breast-cancer-pdf-35109691767493> [Accessed June 2023].

¹⁶ Evans, D.G., Brentnall, A.R., Harvie, M., Dawe, S., et al. (2014). Breast cancer risk in young women in the National Breast Screening Programme: implications for applying NICE guidelines for additional screening and chemoprevention. *Cancer Prevention Research*, 7(10), pp.993-1001.

¹⁷ Allford, A., Qureshi, N., Barwell, J., Lewis, C. and Kai, J. (2014). What hinders minority ethnic access to cancer genetics services and what may help? *European Journal of Human Genetics*, 22(7), pp.866-874.

¹⁸ Laforest, F., Kirkegaard, P., Mann, B. and Edwards, A. (2019). Genetic cancer risk assessment in general practice: systematic review of tools available, clinician attitudes, and patient outcomes. *British Journal of General Practice*, 69(679), pp.e97-e105.



disproportionately time consuming due to the time taken to extract a full family history manually before a clinical assessment can be made (~15-60 mins per patient). In 2022, the Cancer Genetics Unit (CHU) at the South West Thames Centre for Genomics (SWTCG) has piloted a streamlined digital pathway for family history assessment, reducing the average time for assessment from 30 minutes per patient to 10 minutes and reducing the number of women referred into screening services.

3.2 Local Variation

The APPGBC heard evidence from both clinicians and patients on how the screening offered to moderate and high-risk women is extremely inconsistent and often well below the standards set by NICE. While screening for women at very-high risk is provided through the national programme, screening for women at moderate and high risk is commissioned and delivered locally.

Research suggests that there is substantial variation in how locally commissioned services operate across England, and the care patients received, with some women at moderate or high risk not being offered the recommended screening or risk reducing treatment¹⁹.

In 2020, UK Cancer Genetics centres reported that in the devolved nations there was near complete compliance with NICE recommended mammography screening. In England, the picture was patchier with regions representing a combined total population of 26.6 million (48% of the total population) not supplying all NICE recommended screening²⁰. Estimations from survey data suggested that up to 16.4% of eligible

women were not receiving the appropriate moderate-risk surveillance and an even greater number (42%) were not receiving appropriate high-risk surveillance.

Research from Cancer Research UK²¹ also shows that nearly half of GPs are not aware of chemoprevention, and the majority want more support in prescribing it.

Locally commissioned services for women at moderate or high risk are also subject to financial constraints and are not mandatory. Because of this, screening offered to moderate and high-risk women is extremely inconsistent and often well below the standards set out in NICE guidance (CG164²²).

As of April 2023, all screening for people with an increased risk of developing bowel cancer (as a result of being diagnosed with Lynch syndrome) is going to be run by the National Bowel Screening Programme. In comparison, right now, only very high-risk women are screened through the National Breast Screening Programme.

3.3 Improving Family History Services

The APPGBC heard from NHS staff responsible for delivering family history services how, without any dedicated funding, performance standards, or routine data collection, many breast clinics do not have the capacity or resources to manage women at increased risk of breast cancer and offer them the appropriate screening. As a result, many women face severe challenges in navigating these pathways and accessing the screening that is right for them.

¹⁹ Lee, S.I., Curtis, H., Qureshi, S., Dutton, B. and Qureshi, N. (2021). Specialist recommendation for chemoprevention medications in patients at familial risk of breast cancer: a cross-sectional survey in England. *Journal of community genetics*, 12(1), pp.111-120.

²⁰ DG Evans et al. 2020. Sporadic implementation of UK familial mammographic surveillance guidelines 15 years after original publication. *BJC* Feb;122(3):329-332. PMID: 31761901

²¹ Cancer Research UK (2017) Understanding GP Attitudes to Cancer Preventing Drugs. Available at

https://www.cancerresearchuk.org/sites/default/files/understanding_gp_attitudes_to_cancer_preventing_drugs_full_evidence_report.pdf [Accessed June 2023]

²² National Institute for Health and Care Excellence (2019). Familial breast cancer: classification, care and managing breast cancer and related risks in people with a family history of breast cancer. Available at <https://www.nice.org.uk/guidance/cg164/resources> [Accessed June 2023].



Following the publication of the NHS Long-Term Plan, Professor Sir Mike Richards was commissioned to produce a review of screening services, published in 2019²³. The review identified offering women elevated risk of breast cancer within the NHS breast screening programme as a key opportunity to improve the service.

The review also recommended the establishment of a new single screening advisory body to make recommendations on both population and targeted screening, commissioned through similarly nationally agreed standards and service specifications. The remit of the UK's National Screening Committee has

since been expanded in line with this recommendation.

It is vital that the contribution of screening services can be maximised and opportunities to diagnose at-risk women at an early stage are not being missed.

As such, the APPGBC recommends that:

- **The government should work with the National Screening Committee (NCS) and NHS England to deliver breast screening for all at-risk women through the national screening programme, as recommended in the 2019 Richard's Review**

²³ NHS England (2019). Independent Review of Adult Screening Programmes in England. Available at: <https://www.england.nhs.uk/wp-content/uploads/2019/02/report-of-the->

[independentreview-of-adult-screening-programme-in-england.pdf](https://www.england.nhs.uk/wp-content/uploads/2019/02/report-of-the-independentreview-of-adult-screening-programme-in-england.pdf) [Accessed: June 2023].



4. The future of the breast screening programme

New tools and technologies in screening have the potential to improve the effectiveness and efficiency of the breast screening programme but there exist major barriers limiting this research and innovation. Change is needed to ensure the screening programme is ready and appropriately resourced to maximise the opportunities unlocked by scientific developments.

4.1 IT

The APPGBC heard extensively from NHS England and clinicians how the current IT system present the biggest challenge to the future of the breast screening programme. Evidence submitted showed that the current IT system is old and with limited functionality, meaning that any innovations that could make the breast screening programme more effective and efficient would face an uphill struggle in getting rolled out nationally.

A central finding of the Richards Review was that the breast screening programme's current IT systems are “clunky,” “prone to breakdown,” and “in urgent need of renewal”²⁴. Poor digital infrastructure is limiting the programme's efficiency by requiring hospital scans and other data to be inputted manually and by limiting the ability to share digital images between services, which prevents workloads being shared across sites.

This is exacerbated by a highly complex process for transferring information between providers if a patient moves and having multiple versions of the IT system exist across service providers, which, amongst other things, prevents upgrades from being done centrally.

It was a consensus at the APPGBC oral evidence session that any of the aspirations for the future of the breast screening programme – from personalised screening, to improved

imaging offers and AI – would rely in an effective IT infrastructure.

NHSE has set up a strategic delivery programme for the digital transformation of screening²⁵, and it is critical and urgent that this transformation goes ahead. A Digital Transformation of Screening (DToS) business case has been submitted to the Department of Health and Social Care to provide digital products that will support increased uptake by improving targeted and tailored communications and appointment booking options for women.

The business case also seeks funding for a pilot project to improve the care of women at moderate risk of cancer (currently outside the scope of the programme) and in so doing to learn more about digital products with the capability to improve the experience of women being screened and the productivity of clinicians.

These long overdue upgrades will require short-term investment. However, funding decisions made in relation to the DToS programme must take into account the long-term savings and efficiencies a modern, flexible IT system will deliver, including but not limited to; reducing administrative burden, freeing up workforce capacity, integrating with other health records, and informing targeted interventions.

²⁴ NHS England (2019). Independent Review of Adult Screening Programmes in England. Available at: <https://www.england.nhs.uk/wp-content/uploads/2019/02/report-of-the-independent-review-of-adult-screening-programme-in-england.pdf> [Accessed: June 2023].

²⁵ NHS England - Transformation Directorate. Digital transformation of screening. Available at: <https://transform.england.nhs.uk/keytools-and-info/digital-transformation-ofscreening/> [Accessed: June 2023]



4.2 Risk Stratification

The APPGBC heard how currently, personalised screening is only offered to women who are at increased risk of breast cancer due to their family history or a harmful genetic alteration. However, a wide range of risk factors can impact an individual's risk of developing breast cancer, including polygenic risk scores, breast density, general health, medical history, and lifestyle choices.

There are already several existing risk models available or in development that can calculate breast cancer risk and categorise people accordingly. In principle, one of these tools could be used to determine when and how frequently people should be screened based on their level of risk.

The APPGBC heard evidence showing that, if used properly, risk stratification could increase screenings of those at higher levels of risk and reduce screenings of those at lower levels, making the actual impact cost neutral. Improved targeting would also mean allowing women at higher risk to be offered more frequent screening or drugs to reduce risk, hopefully preventing breast cancers and increasing rates of early diagnosis, leading to potential long-term cost savings in treatment.

However, the practicalities of delivering this type of programme will require a significant shift in the screening workforce, communications, and service model, and the work to prepare for this change must be factored into the programme's long-term strategy. Urgent work is needed to ensure we can accurately and consistently categorise people into risk groups, deliver targeted screening in practice, and talk to patients about risk management and reduction²⁶. This would represent a significant shift in our approach to breast screening and

²⁶ McWilliams L, Evans DG, Payne K, Harrison F, Howell A, Howell SJ, French DP; Breast Screening Risk-Stratification Agenda Setting Group. Implementing Risk-Stratified Breast Screening in

therefore must be backed by thoughtful workforce planning and proper IT functionality.

4.3 Imaging and Density

The APPGBC heard of the benefits and challenge in utilising alternative imaging technologies in cases where mammography may be less sensitive, for example women with dense breasts.

While research in this area is promising, it's important that any changes in the programme are supported by clear evidence that the benefits offered outweigh any drawbacks before being rolled out widely.

One of the key issues is that there is currently no gold standard method for measuring breast density, and results vary depending on the method used. Without a reliable, consistent, evidence-based way to determine breast density, requiring all services to inform women whether they have dense breasts risks wide variation in how women are categorised.

The value and impact of informing women about their breast density without also offering a follow up screening pathway has also not been properly evaluated, and risks causing significant anxiety for those affected. Health inequalities are also a key concern, as additional imaging is not currently available through the NHS, meaning only those who could pay for it would be able to access it.

4.4 The AI Question

The APPGBC heard how the use of Artificial Intelligence (AI) algorithms present exciting opportunities for efficiencies at several points in the breast screening pathway, including quality assurance, pathology reporting, and particularly image assessment. There is a lot of interest in AI mammogram

England: An Agenda Setting Meeting. Cancers (Basel). 2022 Sep 24;14(19):4636. doi: 10.3390/cancers14194636. PMID: 36230559; PMCID: PMC9563640.



reading as it has the potential to ease the workforce crisis by reducing the burden on radiologists. But when last reviewed by the NSC²⁷ the quality and quantity of evidence available was not enough to recommend it is use in practice.

Previous research on AI readers has involved retrospective analysis of images by AI compared to the actual outcome, but trials using an AI reader in the screening pathway in real time are now in progress²⁸. This next stage of research will be key to determining the best way to deploy AI tools within screening – for example whether they could act as a second reader for mammograms or be used to triage images before clinical analysis.

The current IT system will be a challenge to implementing AI, as the outdated digital infrastructure would struggle to support the use of AI tools. There also needs to be more understanding of public attitudes towards the use of AI and whether people are happy for an algorithm to be involved in their diagnosis.

4.5 The Future

The APPGBC also heard of the need to establish stable evidence synthesis capacity in UK universities for UKNSC in a similar system to Technology Assessment Review Teams for NICE, and the need to plan for longer term training routes through public health into screening specialist.

Long-term changes are needed to ensure the breast screening is ready to manage future levels of demand, utilise new innovations, and evolve further as research continues. Many of the

innovations being piloted will require the programme to change significantly if the evidence shows they are effective.

As such, the APPGBC recommends that:

- **The Health and Social Select Committee consider convening an independent expert panel to assess a) the NHS' progress in implementing the recommendations from the 2019 Richards' review, and b) the preparedness of national screening programmes to adapt to the future of screening.**
- **The government should urgently approve funding for and start the implementation of the Digital Transformation of Screening (DToS).**
- **The government works with NHS England to produce a horizon scanning report on how breast screening is likely to evolve over the next decade, including, but not limited to:**
 - **Ensuring that the IT improvements can deliver a targeted programme and accommodate new tools being introduced into the screening pathway.**
 - **That long-term workforce planning work is taking into account how the expertise and skills mix required in breast screening is likely to change, and expand the training offered to meet this need.**
 - **Evaluating the benefits and drawbacks of providing information on different breast cancer risk factors, like density, as part of the screening appointment.**

²⁷ UK National Screening Committee (2022) Use of AI in breast cancer screening: rapid review and evidence map. Available at <https://www.gov.uk/government/consultations/use-of-ai-in-breast-cancer-screening-rapid-review-and-evidence-map#:~:text=To%20understand%20the%20state%20>

[of_image%20classification%20in%20breast%20screening](#) [Accessed June 2023].

²⁸ NHSE (2023) First trial for AI software within breast cancer screening. Available at <https://www.leedsth.nhs.uk/research/news-blogs-and-events/research-and-innovation-news/2023/03/06/first-trial-for-ai-software-within-breast-cancer-screening> [Accessed June 2023]



5. Conclusion

This inquiry has found that there is a real opportunity to radically improve the breast screening programme by harnessing the full potential of new innovations. However, any future successes will depend on changes and investments being made now, and that the challenges this inquiry has identified have to be addressed as a matter of urgency.

The NHS breast screening programme has been operating in England since 1988 and we should be proud of its significant achievements over this period. Of the breast cancers that are diagnosed through screening, over 90% will be caught early (at stage 1 or 2), giving those diagnosed the best possible chance of survival.²⁹ It has been instrumental to breast cancer survival rates doubling over the last 40 years³⁰.

However, the continued success of the breast screening programme relies on eligible people being willing and able to come forward for screening, and providing the best possible service when they do. Our inquiry has found a number of issues that are undermining these core principles of access and efficiency. Without the funding needed to tackle the serious structural challenges this briefing has raised the long-term sustainability and cost-effectiveness of the programme is at risk. This would have devastating consequences for women in England, many of whom credit breast screening with saving their life.

With this inquiry, the APPGBC strived to put breast screening back on the parliamentary agenda and hear from experts on how the breast screening programme needs to be improved and modernised, how it can more effectively promote early diagnosis of breast cancer,

and with it meet the commitments set out in the NHS Long-Term Plan.

We urge the government to recognise the critical need for transformation, and provide the investment needed to make these recommendations a reality:

- 1. The government should set out the immediate actions that will be taken to help mitigate the damage the pandemic and the switch to open invites has done to uptake.**
- 2. The government should make breast screening uptake a core focus of national, regional, and local health inequalities work.**
- 3. The government should work with the National Screening Committee (NCS) and NHS England to deliver breast screening for all at-risk women through the national screening programme.**
- 4. The Health and Social Select Committee should convene an expert panel to assess the current position of the national cancer screening programmes in England.**
- 5. The government should urgently approve funding for and start the implementation of the Digital Transformation of Screening (DToS).**
- 6. The government should work with NHS England to produce a horizon scanning report on how breast screening is likely to evolve over the next decade.**

²⁹ Marmot, M.G., Altman, D.G., Cameron, D.A., Dewar, J.A., Thompson, S.G. and Wilcox, M., (2013). The benefits and harms of breast cancer screening: an independent review. *British journal of cancer*, 108(11), pp.2205-2240.

³⁰ Cancer Survival in England, cancers diagnosed 2015 to 2019, followed up to 2020. (2022). NHS

Digital. Cancer survival statistics, people diagnosed with cancer during 2015 to 2019. (2022). Public Health Scotland. Cancer Survival in Wales, 2002-2019. (2022). Public Health Wales. Breast cancer statistics: 1993-2019. Northern Ireland Cancer Registry. [Accessed: December 2022].