Framing, Accessibility, and Regulation: A Narrative Review of Direct-to-Consumer Health Screening Tests in the UK

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September 1st, 2025

Abstract

This research paper presents a narrative review of direct-to-consumer (DTC) health screening tests offered to asymptomatic individuals in the United Kingdom. Conducted as part of a collaborative summer research project under the guidance of Dr. Margaret McCartney at the University of St Andrews School of Medicine, this work analyzes the types of tests offered, their regulatory oversight, the availability of informed consent, and the claims made by private providers. The study reflects broader ethical and systemic concerns about health equity and early diagnosis. Findings suggest that while screening tests sold directly to the public may offer convenience, many providers lack sufficient regulatory oversight and fail to provide transparent information about the risks, potentially leading to overdiagnosis, false reassurance, or unnecessary anxiety. This paper emphasizes the need for balanced, ethical practices in promoting early diagnosis while safeguarding public trust and well-being.

Introduction

As healthcare systems around the world face mounting pressures, direct-to-consumer (DTC) health screening tests are becoming increasingly popular. In the UK, where the National Health Service (NHS) is publicly funded and often stretched thin, some citizens turn to private healthcare options for quicker access to diagnostic tools. These services frequently target asymptomatic individuals—those who are seemingly well—with promises of early detection and peace of mind.

However, while DTC tests are marketed as accessible tools for personal health monitoring, significant concerns have been raised by the World Health Organization and several Royal Colleges regarding their accuracy, regulation, and potential harm (1). Such tests may contribute to over-diagnosis, unnecessary treatment, and emotional distress, while also placing added strain on NHS resources when patients seek follow-up for questionable results (1). Unlike pharmaceuticals, which are strictly regulated and overseen by pharmacists, DTC tests may lack consistent oversight or professional involvement at the point of sale. Current mechanisms to challenge misleading claims are slow and largely dependent on individual complaints, leaving consumers without adequate protections or access to independent information before purchase. With the global DTC testing market projected to double between 2023 and 2029, these regulatory gaps may deepen health inequalities and undermine trust in the healthcare system (8).

Our research team sought to better understand this growing phenomenon. We asked: What kinds of screening tests are being marketed to asymptomatic individuals in the UK? How transparent are companies about the risks? What regulatory frameworks exist to oversee these services? Are consent processes ethical and accessible? And finally, what claims are being used to persuade consumers to purchase such tests?

This project, conducted through the Laidlaw Scholars Program at Duke University in collaboration with the University of St Andrews School of Medicine and led by Dr. Margaret McCartney, seeks to support the ethical implementation of diagnostic tools and ensure that early diagnosis remains both accessible and acceptable across different communities. By exploring the framing, accessibility, and regulation of DTC health screening tests in the UK, we aim to highlight their impact on both consumer experience and the wider healthcare system.

Methods

Our narrative review analyzed DTC tests and clinics offered by 50 private healthcare providers marketing to UK residents. Companies were identified through iterative online searches using incognito mode across major platforms including Google, TikTok, Instagram, LinkedIn, Facebook, and X (formerly Twitter). Search terms included “private GP,” “health test,” “health screening,” “direct-to-consumer health tests for people in the UK,” and “private health clinics offering tests to asymptomatic people.” The aim was to identify around 50 of the most prominent organizations offering tests to healthy individuals for purchase in the UK. Our approach was designed to mirror how an everyday person might search online for information about their own health, allowing us to capture the clinics and tests most visible and accessible to the public. Using these search terms, organizations were located across the different social media platforms and search engines listed above, ensuring a broad representation of companies marketing directly to consumers.

Inclusion criteria required that providers offer screening tests for well, asymptomatic people without requiring a GP referral. We excluded services for pregnant women, neonates, or services outside the UK. The data extraction process was designed to mirror the experience of a non-healthcare professional navigating these websites, prioritizing readability and consumer clarity.

Each website was archived and analyzed independently by two researchers, then inserted into an Excel spreadsheet with screenshots taken and stored on a shared drive. Any discrepancies were resolved by a third reviewer. Key variables included the types of tests offered—such as blood tests, stool samples, physiological tests, and medical imaging—as well as regulatory affiliations, consent processes, cost, marketing claims, and the presentation of benefits (e.g., claims of earlier diagnosis and better outcomes, claims of living longer, claims of reassurance) versus disbenefits (e.g., overdiagnosis, false positives, underdiagnosis, false negatives, and general inaccuracy).

Results

1. Regulatory Oversight

We identified significant variation in the level of regulatory compliance among providers. The number of relevant regulators per company ranged from 0 to 7, with an average of 2.24. Some of the regulatory bodies included the Care Quality Commission (CQC), United Kingdom Accreditation Service (UKAS), Advertising Standards Authority (ASA) that regulates all claims in adverts including online ones, and General Medical Council (GMC) that regulates all doctor's practicing in the UK.

Notably, 23 of the 50 providers were not registered with the CQC which is England's independent regulator for health and social care services meant to ensure safe and high-quality care by registering providers, inspecting services, and acting when providers fail to meet the fundamental standards. Some had only partially registered locations or labs, while others had no registration at all. Three additional companies were registered with the CQC but had not yet been inspected.

2. Types and Frequency of Tests

On average, each provider offered 14.96 different screening tests. Blood tests were by far the most frequently advertised. Liver function tests topped the list, offered by 43 out of 50 providers, followed closely by kidney function tests (42 providers), thyroid function tests (41), and vitamin panels (D, B12, and folic acid, also 41). PSA testing, which is not routinely recommended by the NHS due to its lack of effectiveness in asymptomatic men, was offered by 40 providers. Many of these companies suggested routine PSA screening for men over a certain age, contradicting national guidelines with the UK National Screening Committee.

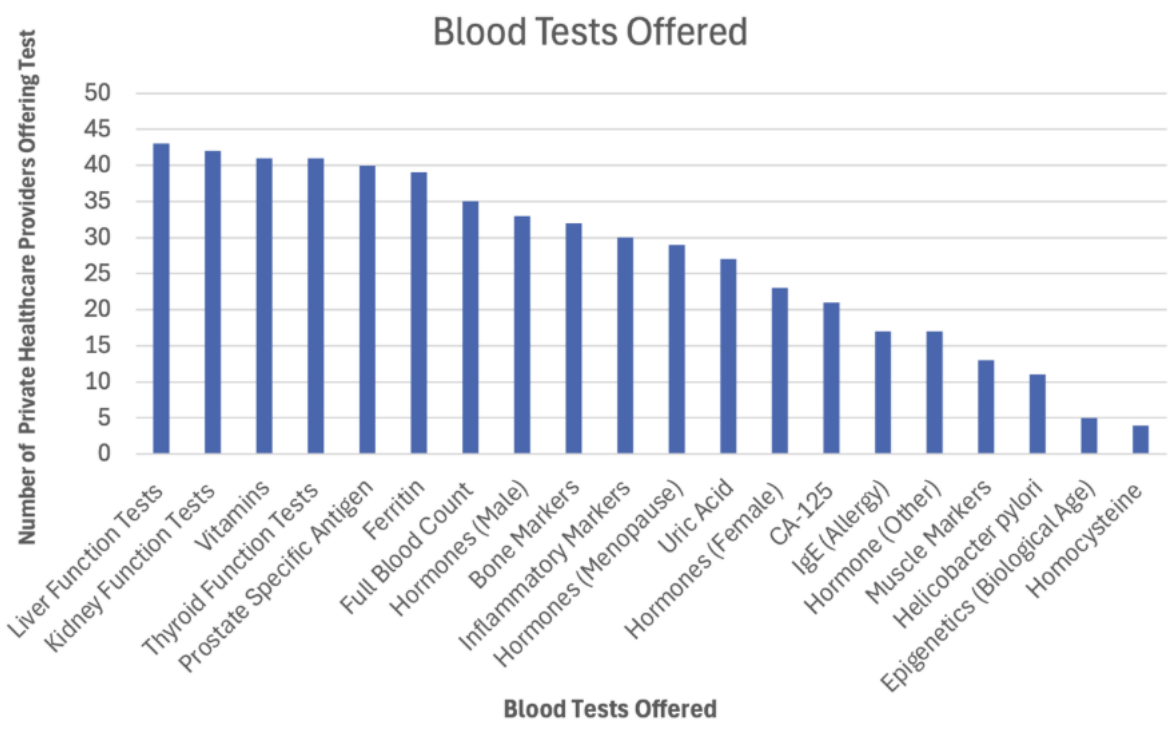

Fig 1. Bar chart depicting number of blood tests offered by private healthcare providers as screening tests.

A wide array of imaging services was also available. Mammography was the most offered imaging test, provided by 14 companies. Also 9 of these offered the test to women under age 50, despite NHS guidance that discourages routine breast cancer screening for this age group.

3. Stool and Physiological Testing

Many providers marketed stool-based tests, including qFIT, calprotectin, elastase, microbiome analyses, and infection detection. NHS recommendations state that qFIT should be used for those aged 50–74, every two years, with individuals over 75 offered testing only upon request. However, our data showed that most DTC offerings lacked clarity on age criteria and usage guidelines.

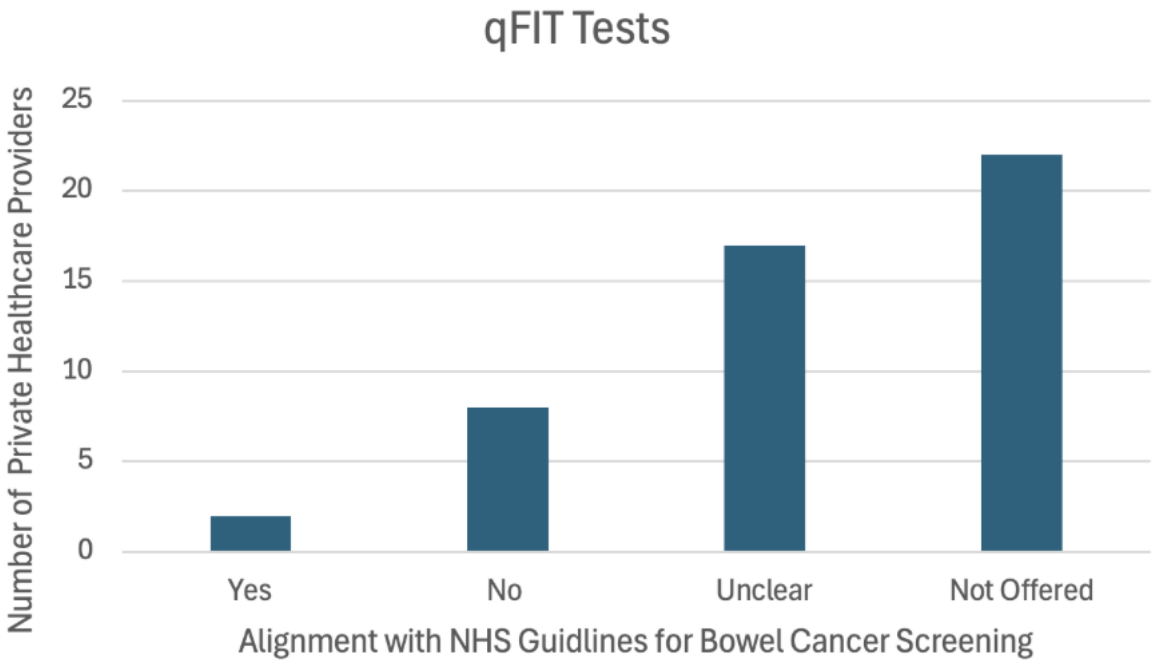

Fig 2. Number of private healthcare providers that offered qFIT in accordance with NHS guidelines based on recommendations from the UK National Screening Committee.

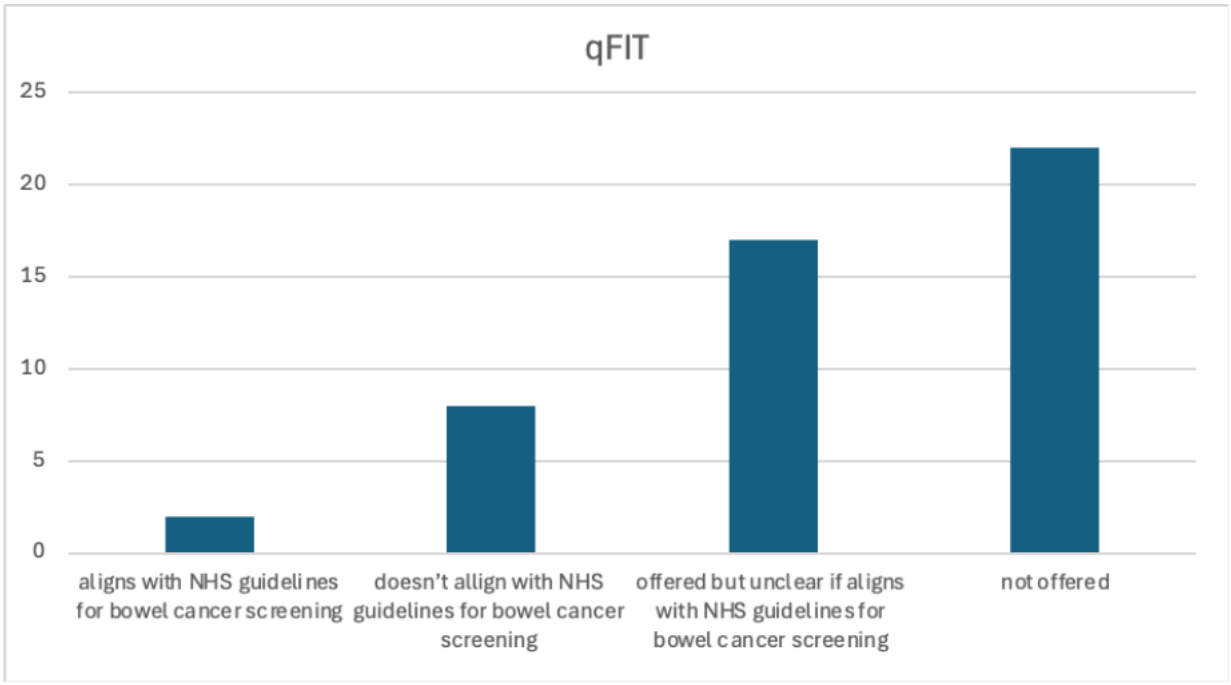

Fig 3. Criteria for qFIT tests. 27 clinics/providers offered this health test, deemed to be unclear if no age range was stated on their website. NHS guideline is for qFIT tests to be

offered to people aged 50 and 74 years-old every two years. Patients over 75 years-old are not automatically offered this but can request to be tested every 2 years.

Physiological tests, including ECGs and sleep apnea assessments, were frequently included in screening packages. ECGs and qFITs were among the most common, while sleep apnea testing were the least common physiological test (offered by only 3 providers).

4. Consent Process

A major ethical concern highlighted in our findings was the lack of clear consent procedures. 78% (39 out of 50) of companies offered no formal process for obtaining informed consent, with many allowing customers to purchase tests or assessments directly online without any requirement to speak to a healthcare professional. Some required users to tick a checkbox or directed them to consult a medical professional, but this guidance was often difficult to find or buried in fine print. This bypasses opportunities for patients to receive balanced information about potential risks and benefits, raising questions about whether individuals are making fully informed choices. In some cases, customers were only required to click a general “I agree” box before purchase, a process that falls short of meaningful consent and may leave individuals unprepared for the psychological or clinical implications of their results.

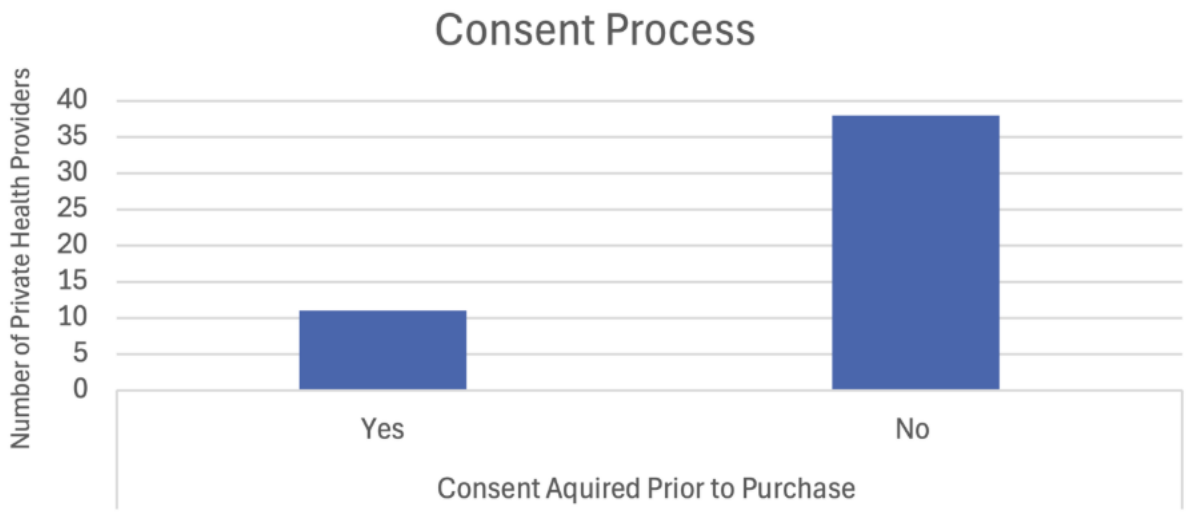

Fig 4. Bar chart depicting the number of private healthcare providers acquiring consent from buyers prior to purchasing screening tests. The consent process would typically include a short description of what the screening test involves followed by information on disbenefits; however, this varied between private providers.

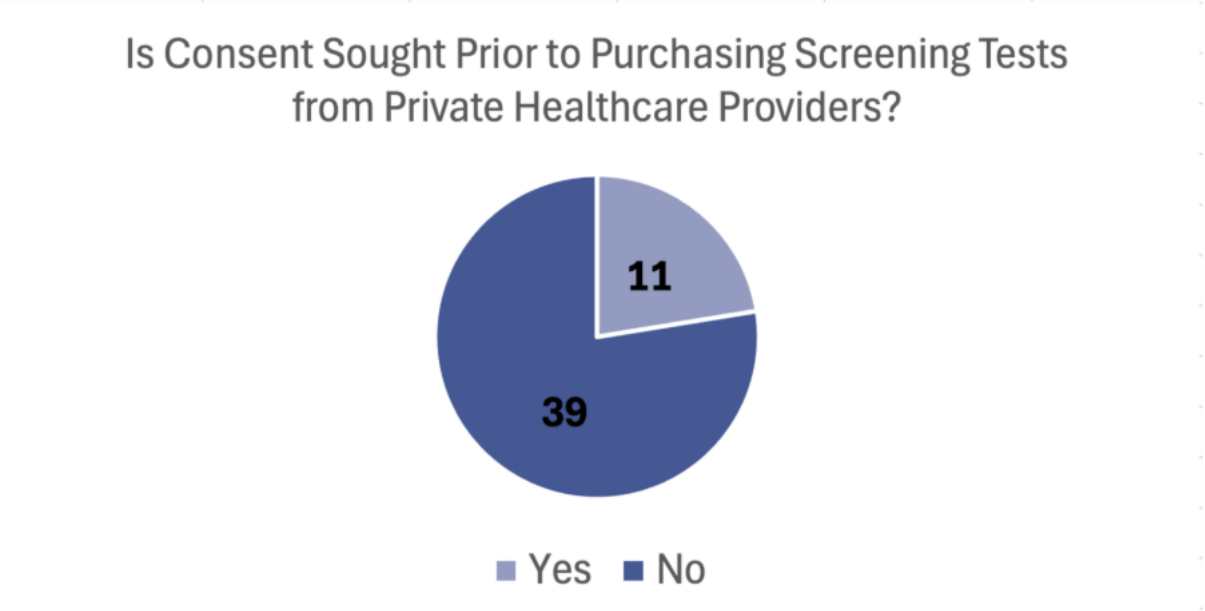

Fig 5. Pie chart depicting the number of private healthcare providers acquiring consent from buyers prior to purchasing screening tests. The consent process would typically include a short description of what the screening test involves followed by information on disbenefits; however, this varied between private providers.

Very few companies provided a full explanation of potential disbenefits, such as false positives, false negatives, or the risk of overdiagnosis. Specifically, 11 companies mentioned the risk of false positives, while 9 mentioned false negatives. Even fewer offered guidance on interpreting results or recommended next steps after testing.

5. Marketing Claims and Framing

Almost all providers emphasized the supposed benefits of testing. 47 out of 50 claimed their services would improve the buyer's knowledge of their health. 32 providers stated their tests would lead to earlier diagnoses and better outcomes, 24 offered reassurance as a benefit, and 16 claimed their tests could help buyers live longer.

Only 11 providers mentioned the risk of false positives, and 9 acknowledged the potential for false negatives. This disparity illustrates a systematic overemphasis on benefits without adequate communication of risks.

Discussion

Our research shows that the current landscape of private DTC health screening in the UK presents serious ethical, clinical, and regulatory challenges. Despite offering faster and more accessible options, many companies misrepresent the utility of tests, provide little to no guidance on their limitations, and often operate without full regulatory compliance. This raises serious questions about quality control, safety, and patient protection across the industry.

The aggressive marketing of tests like PSA and qFIT to populations not aligned with NHS guidelines increases the risk of harm through overdiagnosis, false reassurance, or unnecessary anxiety as mentioned by the World Health Organization stating the risk of over-treatment and "mental and/or physical harm", saying "promotion of non-evidence based screening tests is not

regulated”(1). Moreover, the lack of transparent consent mechanisms undermines the patient’s ability to make informed choices—a core tenet of ethical medical practice (1). This imbalance is further compounded by how companies emphasize potential benefits while providing limited or unclear information about the possible harms. From this, we can deduce that information on the supposed benefits of screening tests is significantly more readily available than information about potential disbenefits and downsides, highlighting a clear imbalance in the communication of risks versus benefits to consumers.

Additionally, many providers sold bundles labeled as "men’s general health" or "women’s wellness packages," implicitly suggesting that all included tests were necessary. This commercial bundling risks promoting unnecessary testing based on gender stereotypes or profit incentives.

This raises broader concerns about equity. While marketed as empowering, these services may actually widen the gap between those who can afford to access and interpret private health tests and those who rely solely on the NHS. Individuals with lower health literacy may be misled into believing these tests are essential, medically validated, or risk-free.

Conclusion

In conclusion, this narrative review highlights an urgent need to reconsider how DTC health screening services are regulated, marketed, and understood by the public. While the intent to detect illness early is admirable, the unchecked growth of the private screening industry risks compromising trust, safety, and equity in healthcare.

Our research under the Laidlaw Scholars Program and in partnership with the University of St Andrews School of Medicine reflects a commitment to building systems of care that are ethical, evidence-based, and inclusive. We advocate for clearer regulations, stronger consent procedures,

and public education campaigns to ensure early diagnosis remains a tool for empowerment—not exploitation.

Acknowledgements

This work was conducted under the mentorship of Dr. Margaret McCartney, Professor Frank Sullivan, and Professor Peter Donnelly at the University of St Andrews School of Medicine as part of the Laidlaw Scholars Program at Duke University and University of St Andrews. I would like to thank my research colleagues and community partners who contributed to the project through focus groups, data extraction, and critical dialogue.

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