Evidence Synthesis Ireland Fellowship Scheme
Review Identification Form

Review Centre/Group Mentor

Review centre: Health Information and Quality Authority (HIQA), Health Technology Assessment (HTA) Directorate **Mentor:** Dr Laura Comber

Review title

Extending the age of eligibility for cancer screening services (BreastCheck or BowelScreen) in Ireland; review of clinical effectiveness of screening

Review type and methods

Systematic review

Review information

The National Screening Advisory Committee (NSAC) is an independent advisory committee which advises the Minister and Department of Health on all new proposals for population based screening programmes and revisions to existing programmes. The Health Technology Assessment (HTA) directorate within the Health Information and Quality Authority (HIQA) has been commissioned to provide evidence synthesis support to the NSAC under an agreed work programme. The NSAC held their first Annual Call for proposals regarding population-based screening programmes in November and December 2021. The Committee received applications from a variety of sources which included members of the public, patient advocates, the HSE and health professionals. Two proposals were received regarding the expansion of the age eligibility for the BreastCheck and BowelScreen population-level cancer screening programmes. HIQA has been asked to consider the evidence for the extension of age eligibility within these programmes. Based on the findings of HIQA's review, it is expected that the NSAC will provide advice to the Minister and Department of Health regarding proposed changes to these programmes.

Review details

Cancer screening aims to detect cancer at an early stage as cancers identified earlier are easier to treat, resulting in a better chance of recovery. While cancer screening has the potential to substantially reduce cancer morbidity and mortality, it is prudent from a resource management and population health perspective to target cancer screening to the groups who are most likely to benefit. Also, screening can in some cases lead to overdiagnosis (i.e, diagnosis of a cancer which would not have resulted in symptoms or a lower life expectancy within the patient's lifetime), or harms resulting from the occurrence of false positives (for example, anxiety or the negative physical effects of undergoing unnecessary further investigations).

The screening programme in Ireland for breast cancer, BreastCheck, currently provides screening for women aged 50 to 69 years. Screening occurs primarily by digital mammography. The National Screening Advisory Committee (NSAC) requested HIQA to look at the evidence for the expansion of the age range eligibility of the programme to include those aged 45 to 49 years and those aged 70 to 74 years. These suggestions were in line with the European Commission Initiative on Breast Cancer (ECIBC) guidelines.

The current screening programme in Ireland for colorectal cancer (also known as bowel cancer), BowelScreen, offers screening every two years to adults aged 60 to 69 years and uses a faecal immunochemical test (FIT). An expansion of the programme to those aged 55 to 74 years has already been committed to in the Programme for Government, in line with the National Cancer Strategy 2017-2026. The National Screening Advisory Committee (NSAC) requested HIQA to look at the evidence for the expansion of the age range eligibility of the programme to include those aged 50 to 54 years.

Scoping reports have been produced by HIQA to gain a preliminary understanding of the evidence available (in terms of clinical effectiveness and cost effectiveness) regarding the proposed age extensions for the above programmes. It is expected that work on a full assessment of age extension for either BreastCheck or BowelScreen will commence in January 2023. This assessment is expected to involve consideration of the following domains:

- Description of the screening programme and the proposed age extension
- Epidemiology of the relevant cancer in the age-groups of interest
- Review of diagnostic accuracy of screening within the proposed age-groups
- Review of clinical effectiveness of screening within the proposed age-groups
- Assessment of cost effectiveness of screening within the proposed age-groups
- Assessment of budget impact of age extension in the programme
- Review of organisational, ethical, legal and social aspects relevant to the proposed age extension.

The ESI fellow would have the opportunity to work within the HIQA team on preparing the review of clinical effectiveness of screening for the age groups of interest. This review will form part of the overall health technology assessment, which will be published on the HIQA website. Similar reviews performed by HIQA in the past have additionally been submitted by the review team to academic journals for publication.

Review current status

Review is yet to begin – drafting of the review protocol is expected to commence in January 2023. Scoping work was, however, undertaken from June-August 2022.

Specific/desirable requirements for Fellow

In order to ensure the Fellow obtains experience of all aspects of the systematic review, and to facilitate integration with the project team at HIQA, it would be important for the fellow to be able to dedicate a substantial block of time each week (e.g. 8 hours over one day, or split across two days), within working hours, to enable meetings with the review team and to ensure the Fellow is available to progress each stage of the project.

It would be desirable, though not essential, for the Fellow to have a working understanding of screening (e.g. principles to guide decision-making on screening, concepts of sensitivity, specificity and predictive value of tests, biases that can occur in assessments of screening) and/or epidemiological study designs (RCTs, cohort studies, case control studies).

Estimated start and completion dates

Start date: January 2023

Completion date: Reviews of clinical effectiveness are expected to be completed in Q1-Q2 2023. The full assessment (potentially including review of cost effectiveness) is likely to be concluded in Q4 2023 – Q1 2024.