

Appendix B: Screening – what it can and can't do

This summary outlines what NHS population screening is, how it works and its strengths and limitations. It also outlines key stages in a screening pathway.

Screening

Screening is the process of identifying healthy people who may be at increased risk of a disease or condition. The screening provider then offers information, further tests and treatment. This is to reduce associated risk or complications.

Screening process

- Identify the eligible cohort
- Invite for screening (also known as call/recall)
- Screening test
- If the test finds the person does not have the condition, a result is sent to individual and they are invited for screening again after a set interval. This person is at low risk of having the condition.
- If the test finds that the person does have the condition, a further investigation is offered. This person is at higher risk of having the condition. They may need further diagnostic tests and treatment. When treatment is concluded, they are usually invited for screening again after a set interval.

Informed choice

To be effective and cost effective, screening programmes need a certain number of people to have the screening test. This is usually expressed as a percentage of the eligible population. It is based on the evidence of clinical and cost effectiveness and is different for each screening programme.

It is important that individuals have the information they need to make an informed choice about whether to have screening. Health professionals have to ensure that individuals receive:

- Guidance to make informed choices
- Support throughout the screening process

In cancer screening, approximately 5% of the eligible cohort makes an informed choice not to have screening. This should be respected. However if screening programme coverage rates are less than 95%, this means that there are people who would have screening but are not having it for other reasons such as access issues, which could be addressed.

Realistic expectations

The public (and health professionals) need to have realistic expectations of what a screening programme does.

Screening can:

- Save lives
- Improve the quality of life by identifying risk early
- Reduce the risk of developing a serious condition or its complications

Screening does not guarantee protection. A 'normal' or 'negative' result means that the individual is at low risk from having the condition. It does not prevent them from developing the condition at a later date.

In any screening programme there are always false negative and false positive results. Some people will be wrongly reported as having the condition (false positive) or wrongly reported as not having the condition (false negative). This is because the tests are not perfect.

Key terms

- **Prevalence:** the number of individuals in a population with the target condition
- **Sensitivity:** the ability of a screening test to identify and **refer on** the people who **DO** have the condition
- **Specificity:** the ability of a screening test to identify and **not refer on** those who **DO NOT** have the condition
- **False positives:** these are the individuals who were referred on but do not have the condition
- **False negatives:** these are the individuals who were not referred on but do have the condition

Further information

- NHS Screening Programmes explained www.gov.uk/topic/population-screening-programmes
- Making sense of screening leaflet. Useful for addressing misconceptions and weighing up harms and benefits. www.senseaboutscience.org/resources.php/7/making-sense-of-screening
- Health knowledge interactive learning module. Useful if you want to gain an in depth understanding of screening. www.healthknowledge.org.uk/interactive-learning/screening