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Draft Editorial for Journal of Medical Screening

**Risk or Chance**

A widely used definition of medical screening and one adopted by this Journal is “Screening is the systematic application of a test or enquiry to identify individuals at sufficient risk of a specific disorder to benefit from further investigation or direct preventive action among persons who have not sought medical attention on account of symptoms of that disorder”.[[1]](#endnote-1) The definition uses the word ‘risk’ but the UK National Health Service has replaced the word ‘risk’ with the word ‘chance’ when used in the context of antenatal screening for Down’s syndrome, Edwards Syndrome and Patau’s syndrome,[[2]](#endnote-2) [[3]](#endnote-3) including its use in patient information leaflets and the reporting of test results.3 The Public Health England (PHE) Screening blog (now replaced by a new UK National Screening Committee blog) indicates that the change was prompted by opinions from parents of children with Down’s Syndrome.[[4]](#endnote-4) The change, however, lacks justification.

In general, the word ‘risk’ is associated with an undesirable outcome (for example, the risk of having a stroke), and the word ‘chance’ is associated with a desirable outcome (for example, winning the lottery). This distinction is a useful and honest basis for distinguishing the two words in the context of screening. The change in terminology, however well intentioned, is misplaced for several reasons.

First, although ‘risk’ implies a possible unwanted outcome, the view that the word ‘risk’ in any way, diminishes the value of a human being is not justified; it does not express or imply an opinion about the worth of the individuals concerned, whether they are a person affected by Down’s syndrome or a person who has a stroke. Few would object to the statement that a woman who has chosen to have breast screening and has a positive mammogram has a high risk of breast cancer; it does not mean there is any stigma attached to a woman with breast cancer. Second, all medical screening involves seeking individual consent. Making a choice is important because the risks associated with being screen-positive need to be recognised and not simply regarded as ‘chance’ events. The issue is not limited to antenatal screening or diagnosis. A switch from ‘risk’ to ‘chance’ would have wider implications, for example, to be consistent ’Relative risk’ may become ’Relative chance’ and ’Risk ratio’ may become ’Chance ratio’. Such a change in terminology would effectively regard risk and chance as synonyms which undermines the claimed reason for the change. The reality is they are not perfect synonyms and the subtle distinction in meaning is important in the public understanding of what medical screening seeks to offer. The distinction is revealed in the expression ’games of chance’ (such as roulette) for which ’games of risk’ would not be an appropriate alternative.

Third, the May 2019 entry on the PHE blog comes close to making the use of ‘chance’ instead of ‘risk’ compulsory.4 In a list of several so-called word “improvements”, the blog specifies using the word ‘chance’ instead of ‘risk’ and states: “We are encouraging all health professionals to use the above changes and terminology when discussing screening options with women and to make sure any locally produced literature is consistent with this”.4 The central prescription of language that can or can’t be used reminds one of George Orwell’s ‘1984’. In general, the prescription of acceptable and unacceptable language determined by a central authority is a dangerous undesirable example of central control that should be discouraged.

On balance we believe that ‘risk’ should be retained in screening literature and communications that are part of the delivery of antenatal and other screening services. The March 2019 entry to the PHE blog refers to “ongoing work to talk about ‘chance’ rather than ‘risk’ in antenatal screening”3 but there seems to have been little published debate. The change has nonetheless been made.2 We believe this to be an error and that the word ‘risk’ used properly in the context of screening should be retained while recognising that the word ‘chance’ may be used when judged appropriate, for example when counselling patients. The matter could be considered by the UK Health Security Agency and Office of Health Improvement and Disparities which replaced Public Health England on 1st October 2021.

**Nicholas Wald, Jon Bestwick and Joan Morris**

References

1. Guidance on Terminology. Journal of Medical Screening. 1994 1:1, p.76. [↑](#endnote-ref-1)
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3. Reminder about fetal anomaly screening laboratory letters. 28 March 2019. PHE Screening blog. <https://phescreening.blog.gov.uk/2019/03/28/reminder-about-fetal-anomaly-screening-laboratory-letters/> [↑](#endnote-ref-3)
4. Antenatal ultrasound scan information sheets updated. 17 May 2019. <https://phescreening.blog.gov.uk/2019/05/17/antenatal-ultrasound-scan-information-sheets-updated/> [↑](#endnote-ref-4)