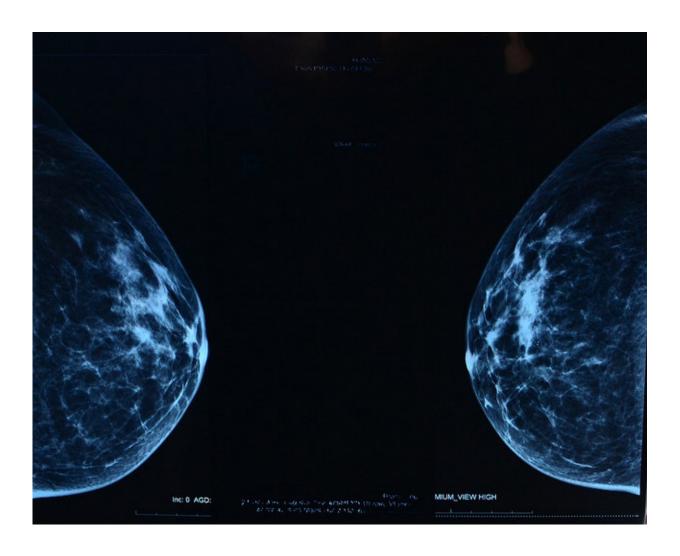


Breast screening error—women need reassurance, not misleading statistics

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On Wednesday, Jeremy Hunt announced that the English breast screening programme had suffered a computer failure, resulting in an estimated 450,000 women not receiving their final breast screening invitation since 2009. This has triggered widespread concern, and is being widely covered by the media.

In his announcement, the Secretary of State for Health and Social Care also said that between 135 and 270 women may have "had their lives shortened as a result" of the error. These numbers are estimates. But, more worryingly, that phrasing is now being reported as a fact of the number of lives lost, rather than an estimate. It's not possible to know for sure how accurate this figure may be, but talking about it in this way, before the findings of the independent inquiry into the error has even started, has served to stir fear.

That's why, for women who may have been affected, this announcement is causing worry and distress. And the latest reports of NHS helplines being inundated with calls backs this up.

How reliable is this estimate?

Professor of the Public Understanding of Risk, Sir David Speigelhalter, has pointed out that the 135-270 'lives shortened' claim is likely to be misleading. In part this is because the benefit of screening in older women is more controversial than in younger age groups.

There also isn't good evidence on what happens if a woman misses her last screen, but has attended previous ones – so it's unclear how much of an impact one missed screen might have. This of course should not take away from the fact that women affected have had their choice to participate in the screening programme taken away and, potentially, the chance to have a <u>breast</u> cancer diagnosed earlier than it would otherwise have been.



And as Speigelhalter says, screening comes with harms as well as benefits. The fact these harms may have been avoided for some women also needs to be considered. If we accept Jeremy Hunt's 270 lives shortened figure, Spiegelhalter estimates that "up to 800 women may have been saved from harm by not sending them their final screening appointment letter." [emphasis in original]



BREAST SCREENING IN WOMEN

THE BENEFITS AND HARMS OF BREAST CANCER SCREENING

Of 1,000 women aged 50-70, without any symptoms... WITHOUT SCREENING WITH SCREENING 58 75 will be diagnosed will be diagnosed with breast cancer with breast cancer 21 will die of 16 will die of breast cancer breast cancer 37 will be treated 59 will be treated and survive and survive their cancer their cancer 17 of the 59 will be overdiagnosed. These are cancers that wouldn't have caused any harm.* -DUE TO SCREENING 5 lives will be saved but around 5 lives will be saved 17 women will be diagnosed due to screening with cancers that would not have caused them any harm.

*It is not possible to tell who these women are. They may go through unnecessary treatment, worry and potential complications.

Source: Independent UK Panel on Breast Cancer Screening. The benefits and harms of breast cancer screening: an independent review. The Lancet. 2012; 380 (9855): 1778-1786.

LET'S BEAT CANCER SOONER cruk.org



Credit: Cancer Research UK



This is down to overdiagnosis. While there's good evidence that the breast screening programme benefits women through early detection of breast cancers, screening also harms some of the women taking part. These women do not benefit from earlier detection of disease but instead have slow-growing, harmless breast cancers picked up through screening, when they would have otherwise gone undetected. For every 1000 women who take part in the UK screening programme, 5 will have their life saved, but 17 will be unnecessarily treated for a harmless cancer that would not have caused symptoms.

Overdiagnosis can become more likely when screening older women, as they have a shorter life expectancy and any cancer diagnosed early has less chance of becoming life-threatening. How the benefits of screening older women stack up against the harms of overdiagnosis and overtreatment isn't clear, which is why, when there aren't any IT errors, the UK screening programme stops inviting women at age 70.

The role of the AgeX clinical trial?

AgeX, the age extension trial, which in part helped to uncover the algorithm failure, aims to understand more about screening <u>older women</u> (as well as women from age 47-49). Public Health England set up this trial to gather better data to inform the breast screening programme and the service it should offer to women.

Some have taken aim at this study as being to blame for the error. But this thoughtful piece from The Guardian, examining the validity of the "270 deaths" figure as well as the estimate that 450,000 women have been affected, says otherwise.

Among all this debate, it's important not to lose sight of the alarm caused to women and their families – and heightened by the rhetoric in the media. We need to understand what the actual impact may have been,



which is the job of the independent inquiry that has been set up to study individual medical histories of the women affected.

But even then, it may be hard to find out what might have happened had this failure not taken place. In part because it is incredibly difficult to unpick what could have happened to each individual woman, as well as the difficulty in pinning down the precise benefits that final breast screening appointment may offer.

The breast screening programme has been set up to offer women aged 50-70 screening, and it failed to do that for some <u>women</u> in their final screening round. Thousands had a choice they should have been afforded taken away from them. But breast <u>screening</u> isn't perfect, and the issue is more complex than simple but alarming headlines might lead us to believe.

Provided by Cancer Research UK

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