



**Tuesday 30<sup>th</sup> October 2012**

**SCREENING REDUCES BREAST CANCER DEATHS – AT THE COST OF OVERDIAGNOSIS**

Breast Screening Programmes in the UK extend lives but at a cost, according to the results of an independent review published in *The Lancet* today. The Review estimated that while screening prevents about 1,300 breast cancer deaths per year, it can lead to about 4,000 women each year aged 50-70 in the UK having treatment for a condition that would never have troubled them.

The expert Panel's report, commissioned by Cancer Research UK and the Department of Health, has concluded that – having studied all the available evidence – for each breast cancer death prevented, about three overdiagnosed cases will be identified and treated. Overdiagnosis means that a cancer was detected through screening but would not have caused a problem in the woman's lifetime.

But, because it is not possible for either the woman or her doctor to know which screen-detected cancers are potentially fatal and which represent overdiagnosis, all will usually be treated, with the accompanying impact on quality of life and psychological well-being.

The Panel, chaired by Sir Michael Marmot, professor of epidemiology and public health and Director of the Institute of Health Equity at University College, London, concluded that breast cancer screening extends lives through early detection and treatment. But it acknowledged that screening also results in overdiagnosis. Of the 307,000 women aged 50-52 who are invited to begin screening each year just over 1% would have an overdiagnosed cancer in the next twenty years and less than 0.5% will have their life extended in the next twenty years.

Professor Marmot said: *"It was extremely important to look at all the available evidence surrounding both the achievements and shortcomings of the UK Breast Screening Programmes in the wake of increasing debate over their effectiveness."*

*"The Panel concluded that the screening programmes have contributed to reducing deaths from breast cancer in women. But they have also resulted in some overdiagnosis among women who go for screening. It is now vital to give women information that is clear and accessible before they go for a mammogram so they can understand both the potential harms and benefits of the process."*

Press release  
Independent breast screening review

Maggie Wilcox, a breast cancer survivor and panel member, said: *“It was important for a patient to be part of the proceedings during this review. Women have a right to ask questions and have them answered in way that makes sense to them. The key to the outcome of this review is to devise a way of explaining the pros and cons of breast screening to all women in a way they can understand and to arm anyone who is diagnosed with breast cancer with information that allows them to discuss treatment options with their consultant.”*

Other members of the Panel were: Professor Douglas Altman, director of the centre for statistics in medicine at the University of Oxford, Professor David Cameron, professor of oncology and clinical director of the Edinburgh Cancer Research Centre, Professor John Dewar, consultant and honorary professor of clinical oncology at Dundee University and Professor Simon Thompson, director of research in biostatistics at the University of Cambridge

**ENDS**

For interviews with a member of the independent breast screening review panel, please contact Felicity Porritt on 020 3469 8435 or 07739 419219 ([felicity.porritt@gmail.com](mailto:felicity.porritt@gmail.com)).

For other media enquiries, spokespeople and case studies please contact either Sally Staples or Laura Dibb in the Cancer Research UK press office on 020 3469 8300 or the out of hours' duty press officer on 07050 264059.

**NOTES TO EDITORS**

There are a number of ways to present the figures for deaths prevented and the number of breast cancers which are overdiagnosed. The table overleaf sets out the figures for deaths prevented and overdiagnosed cases side by side so that they can be compared appropriately.

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Measure	Summary of figures	
	Screening Benefits	Screening Harms:
	Women invited for breast screening have a 20 per cent reduced chance of dying from breast cancer compared with what it would be without a screening programme.	19 per cent of breast cancers diagnosed in women aged 50 to 70 invited for screening would not have caused any problem if left undiagnosed and untreated.
Number of deaths prevented and women overdiagnosed per year in the UK	Rounded figure: 1,300 deaths prevented  Unrounded: 1,307	Rounded figure: 4,000 women overdiagnosed  Unrounded: 3,971
Number of deaths prevented and women overdiagnosed per 10,000 <b>invited to screening</b>	43 (0.43 per cent) deaths prevented	129 (1.29 per cent) women overdiagnosed
Number of deaths prevented and women overdiagnosed per 10,000 <b>who actually attended screening</b>	56 deaths prevented	168 women overdiagnosed
Ratio of overdiagnosis to deaths prevented	1 death prevented	3 women overdiagnosed

**The UK Breast Screening Programmes** routinely invite all women aged 50-70 to attend for mammographic screening every 3 years. This is being extended to women aged 47 to 50 and 70 to 73.

**Mammography:** an X-ray of the breast to look for cancer.

**Cancer:** In terms of overdiagnosis, the term covers both invasive breast cancer and ductal carcinoma in situ (DCIS)

**Invasive cancer:** This means cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues. Invasive breast cancer is breast cancer that has spread from the lining of the breast ducts or lobules into the surrounding breast tissue.

**Ductal Carcinoma In Situ (DCIS):** This means that cells inside some of the ducts of the breast have started to turn into cancer cells. These cells are all inside the ducts and have not started to spread into the surrounding breast tissue.