

Financial incentives in breast cancer screening

The urgent need to shift from incentivising uptake to promoting active, informed choice through the provision of evidence-based decision aids

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Mirela Colleoni¹, Theodore Bartholomew, MBBS MBE², Harald Schmidt, PhD³

¹ Patient citizen France, ² GP Speciality Registrar, Royal Surrey County Hospital NHS Foundation Trust, Guildford, UK, ³ Assistant Professor, Department of Medical Ethics and Health Policy, University of Pennsylvania, USA

Conflicts of interest:

1. Mirela Colleoni: no conflicts of interest
2. Dr. Theodore Bartholomew: National Institute for Health and Care Excellence (NICE) scholar (one-year unfunded opportunity to learn about inner workings of NICE)
3. Dr. Harald Schmidt: no conflicts of interest



Benefits and Harms of Breast Cancer Screening

- Women invited to screening should be fully informed of both the benefits and harms ^{1,2}
 - **Benefits**
 - Fewer breast cancer deaths
 - **Harms**
 - False positives
 - Overdiagnosis
 - Overtreatment
 - Physical, psychological and financial consequences
- **Benefits are generally overstated and harms underplayed by promoting screening organizations** ³

1. Marmot et al. The benefits and harms of breast cancer screening: An independent review. 2013

2. Gøtzsche PC, Jørgensen KJ. Screening for breast cancer with mammography. Cochrane Database Syst Rev. 2013

3. Woloshin S, Schwartz LM. How a charity oversells mammography. BMJ. 2012

Overdiagnosis in Breast Cancer Screening

- **Overdiagnosis:** the detection of cancers on screening which would not have become clinically apparent in the woman's lifetime in the absence of screening ¹
- Overdiagnosis turns a women unnecessarily into a cancer patient¹
 - 99% of those diagnosed with breast cancer have surgery
 - 72% have radiotherapy
 - 72% have adjuvant hormone therapy
 - 27% have adjuvant chemotherapy
- Breast cancer diagnosis leads to psychological distress ^{1,2}
- Most women are unaware that inconsequential disease can be detected by screening⁴

4. Hersch J et al. Use of a decision aid including information on overdetected to support informed choice about breast cancer screening: a randomised controlled trial. Lancet 2015

Financial Incentives for Breast Cancer Screening in France (1)

For Providers : in place since 2011

- Pay-for-Performance indicator on public health objectives for GPs to screen more women ⁵
- Recognized as “controversial” on the website of French Health Insurance because the “risk of over-diagnosis that could lead to unnecessary mutilation on over-detected women” ⁶
- Still maintained by following the College of General Medicine’s recommendation, which is “in favour of keeping it, particularly because of the recognized reduction in mortality (between 15 and 21% depending on the source)”. ⁶

5. L'Assurance Maladie. Convention, 2016: La Nouvelle Rosp, 2016. <https://convention2016.ameli.fr/valoriser-lactivite/nouvelle-rosp/>

6. L'Assurance Maladie. La Rosp du médecin traitant de l'adulte, 2021. <https://www.ameli.fr/paris/medecin/exercice-liberal/remuneration/remuneration-objectifs/medecin-traitant-adulte>

Financial Incentives for Breast Cancer Screening in France (2)

For Women: to be experimented, action implemented in the new Cancer Plan

- Sept 2020: National Cancer Institute (INCa) organizes a Citizen Consultation for the New Cancer Plan ⁷
- Financial incentive measure proposed by INCa under “Prevention Axis” ⁷
“Experiment with **material incentives** to facilitate people's participation in **screening**”
Incentive mechanisms such as **financial motivation** or **covering of expenses** (e.g. transport, childcare, worktime), which have been little used up to now, will be experimented”
- Feb 2021: the measure is adopted (Action I.12.7 , INCa Road Map , Cancer Plan) ⁸
- Objective: reach European target of 70% uptake in mammography screening ⁸

7. INCa <https://consultation-cancer.fr/consultations/axe-1-ameliorer-la-prevention/consultation/consultation/opinions/12-ameliorer-laces-aux-depistages/mesures-proposees/experimenter-des-incitatifs-materiels-pour-faciliter-la-participation-des-personnes-au-depistage>

8. INCa <https://www.e-cancer.fr/Presse/Dossiers-et-communiqués-de-presse/Plus-d-un-tiers-des-mesures-de-la-strategie-decennale-de-lutte-contre-les-cancers-lancees-des-2021.-Un-objectif-ameliorer-le-service-rendu-a-l-ensemble-de-nos-concitoyens>

Financial Incentives for Breast Cancer Screening in US

- **For Women : in place**
- Private health insurance companies : paid time off, in-kind items and financial incentives with typical value between \$10 to \$200 ⁹
- State-sponsored programs (four US states) : financial rewards (for opting in) and penalties (for opting out) ¹⁰
- **For Providers : in place**
- Breast cancer screening : one of the most common indicators in pay-for-performance programs ¹¹

9. Schmidt H. The Ethics of Incentivizing Mammography Screening. JAMA . 2015 Sep 8;314(10):995.

10. Dinh C, Bartholomew T, Schmidt H. Is it Ethical to Incentivize Mammography Screening in Medicaid Populations? – A Policy Review and Conceptual Analysis. Prev Med (Baltim). 2021;In Press.

11. Rosenthal MB, Landon BE, Normand S-LT, Frank RG, Epstein AM. Pay for Performance in Commercial HMOs. N Engl J Med [Internet]. 2006 Nov 2;355(18):1895–902.

Financial Incentives for Breast Cancer Screening in UK

- For Women : not in place
- For Providers : under discussion
- Suggestions made by Independent Review of Adult Screening Programmes ¹²
 - Introducing payment by activity (i.e. more money for more women screened)
 - Targeted payments for enhanced services (i.e. giving a GP practice extra funding for providing additional screening services).

12. Richards M. The Independent Review of Adult Screening Programmes in England. 2019.

Ethical Issues of Incentivising Screening for Breast Cancer

- **For Women :**

- Informed consent may be compromised
- Decision-making process may be unduly influenced
- Women may make decisions that they will regret and would not have made in the absence of incentives

- **For Providers :**

- May compromise their ability to provide objective information about the harms and benefits of screening

Evidence-Based Decision Aids in Breast Cancer Screening

- The decision about breast cancer screening is *preference-sensitive* ¹³
- Equally well-informed women weigh the trade-offs of potential harms and benefits differently ¹⁴
- Adopting a preference-sensitive approach requires that women have access to accurate information
- Evidence-based decision aids can help women integrate information about the risk of harms and benefits with their own values and priorities

13. O'Connor AM, Légaré F, Stacey D. Risk communication in practice: the contribution of decision aids. *BMJ Br Med J* 2003;327(7417):736–40

14. Hersch J, Barratt A, Jansen J, Irwig L, McGeechan K, Jacklyn G, et al. Use of a decision aid including information on overdetection to support informed choice about breast cancer screening: a randomised controlled trial. *Lancet [Internet]*. 2015 Apr;385(9978):1642–52.

Conclusion and Recommendations

- Breast cancer screening is controversial, and the provision of incentives in this context is ethically problematic
- Instead of proposing financial incentives to screen more women, health authorities should :
 - ✓ Support women by promoting active and informed choice through the provision of evidence-based decision aids
 - ✓ Support professionals to provide better quality information about screening
 - ✓ Abolish targets for breast cancer screening to avoid raising conflicts of interest for providers in facilitating preference-sensitive decisions

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Thank you

Any questions ?