



Title	Mass breast screening is highly inefficient [1]
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To the Editor—We disagree with Lui et al's assertion that "data concerning Asian Chinese populations are meagre"¹ with respect to mammographic screening. By selective citation, the authors neglected an entire corpus of local evidence since 1996,²⁻⁴ including their own unit's 1998 report.⁵

We have shown that, under the most optimistic assumptions, for every 10 000 women 50 years or older screened annually over a 10-year period, we would expect 1037 'positives' of whom 898 would be falsely labelled. This would avert seven breast cancer-related deaths but generate 13 iatrogenic complications.³ In their audit, among a highly self-selected group of women including some with a strong family history of breast malignancies, the authors confirmed that only 5 out of 100 abnormal mammograms turned out to be cancer.¹ Additionally, contrary to their claim about a higher cancer detection rate between 1993-1995 and 1998-2002, it actually remained flat at 5.0% overall (compared to 4.94% in the preceding period).⁵ Their 'improved' ability to detect 'minimal' cancers (3.8 vs 2.8 per 1000) was almost certainly an artefact due to the younger age distribution of those screened in the latter period, ie classical case-mix bias.¹

While such statistics do not immediately rule out screening as part of a comprehensive

preventive strategy, this evidence should be clearly communicated to women thereby allowing for informed choice. At the public health level, mass screening will be highly inefficient.⁴ Resources that may be allocated for breast screening, opportunistic or population-based, would be better directed at improving treatment for cancer patients including the funding of new adjuvant therapies, along with active case-finding in the minority of high-risk well women for whom mammography may be a truly beneficial and vital intervention. The authors should heed their predecessors' advice on the "need for reconsideration of offering screening to women 40 years and over".⁵

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References

1. Lui CY, Lam HS, Chan LK, et al. Opportunistic breast cancer screening in Hong Kong: a revisit of the Kwong Wah Hospital experience. *Hong Kong Med J* 2007;13:106-13.
2. Hedley AJ, Lam TH, Cheng KK. Breast cancer and screening in Hong Kong. *Hong Kong Pract* 1996;18:499.
3. Leung GM, Lam TH, Thach TQ, Hedley AJ. Will screening mammography in the East do more harm than good? *Am J Public Health* 2002;92:1841-6.
4. Woo PP, Kim JJ, Leung GM. What is the most cost-effective population-based cancer screening program for Chinese women? *J Clin Oncol* 2007;25:617-24.
5. Lau Y, Lau PY, Chan CM, Yip A. The potential impact of breast cancer screening in Hong Kong. *Aust NZ J Surg* 1998;68:707-11.

Authors' reply

To the Editor—We thank Dr Leung and his colleagues for their interest in our article "Opportunistic breast cancer screening in Hong Kong: a revisit of the Kwong Wah Hospital experience".¹

Since the publication of the earlier report mentioned by Leung et al,² we have done two more

reports on our screening services^{1,3} and our article¹ was the most comprehensive report describing the largest population, longest study period, and giving the most detailed analysis. Our data³ have also been quoted in an article reviewing the Singapore National Breast Screening Programme with a comment that

our cancer detection rates were comparable to the Singapore Project.⁴

The comment "data concerning Asian Chinese population are meagre" referred to clinical data on the performance of screening programmes in the region. Our citation was based on practical data and not estimated or projected data.

Despite Hong Kong having a lower cancer incidence compared with western countries, we have achieved a 5 per 1000 cancer detection rate, reflecting the quality and effectiveness of our screening programme. Moreover, there was definitely an improved ability to detect small cancers. The screened population was older in this study (paragraph 2, page 111¹), just the opposite of the assertion made by Leung et al.

In opportunistic breast cancer screening, financial effectiveness is not the main concern. Women's screening decisions are mainly based on risks and benefits and we agree with Dr Leung and his colleagues that the risks and benefits of a breast cancer screening programme should be clearly communicated. Our paper gave a factual report on our opportunistic screening programme, which is both financially sustainable and of good quality. The

question of whether population screening should be performed in Hong Kong is beyond the scope of this paper. The differences between opportunistic screening and population screening were clearly specified in the paper.¹

We fully appreciate Dr Leung and his colleagues' contribution to the evaluation of breast screening in Hong Kong and hope our article provides further data useful for the future evaluation of breast screening.

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References

1. Lui CY, Lam HS, Chan LK, et al. Opportunistic breast cancer screening in Hong Kong: a revisit of the Kwong Wah Hospital experience. *Hong Kong Med J* 2007;13:106-13.
2. Lau Y, Lau PY, Chan CM, Yip A. The potential impact of breast cancer screening in Hong Kong. *Aust NZ J Surg* 1998;68:707-11.
3. Chan LK, Lam HS, Chan ES, et al. Mammogram screening of Chinese women in Kwong Wah Hospital, Hong Kong. *Australas Radiol* 1998;42:6-9.
4. Wang SC. The Singapore National Breast Screening Programme: principles and implementation. *Ann Acad Med Singapore* 2003;32:466-76.