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Community-based Breast Cancer Screening Program of Taiwan

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Breast cancer screening has evolved in Taiwan from selective mammographic screening within a high-risk group, firstly to a programme of physical examination by public health nurses, and finally to a two-stage breast cancer screening programme, with a risk assessment followed by mammography for those at moderate to high risk.

The evolution include four stages: (1) selective screening for breast cancer with mammography, ultrasound and physical examination only in first-degree relatives of breast cancer cases (1995–1998); (2) a programme of mass screening (1999–2001) with physical examination by public health nurses; (3) two-stage breast cancer screening with a risk factor questionnaire and mammography for those deemed at moderate-to-high risk (2002–2004), in which the questionnaire used was based on significant risk factors realized from the second stage which covered one million women in Taiwan. A risk score was then constructed from the logistic regression coefficients, and women with a score above the median were assigned to mammography.; and (4) in the light of evidence from randomized controlled trials in Western countries, a nationwide screening program for women aged 50–69 with biennial mammography subsidized by the Bureau of National Health Insurance was launched (2004.07 up to now).

There are still two major concerns for breast cancer

screening in Taiwan. Firstly, the current policy does not cover young women aged 40–49 years, the peak incidence of breast cancer in Taiwan and also other Asian countries. Secondly, whether the universal programs are suitable for countries with low or intermediate level of incidence rate of breast cancers compared with Western countries is argued on the ground of efficiency. To solve the first concern, a randomized-controlled trial for women aged 40–49 was conducted to test the performance of mammography and ultrasound. The results will be presented. For the second concern, population-based risk stratification is one of solutions. It can be done by using one-shot baseline survey on mammographic screening for breast density with questionnaire for conventional risk factors and genetic assessment, if possible, at prevalent screen for all women to obtain the risk profile. For those in extremely high risk group, annual mammographic together with MRI and sonography is suggested. For those in high risk group, biannual screening with mammography and sonography is suggested. Others are advised to use routine screening program as it is.

In conclusion, our experience on community-based screening facilitate the implementation of breast cancer screening evolving from selective screening to universal screening program with personalized medical care.