Breast cancer in asian women: Why how you live & where you live matter

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ABSTRACT

Breast cancer rates are rising rapidly across Asia, in contrast to the plateauing rates observed in Europe countries. In Malaysia, incidence is highest among Chinese and Indian women, yet access to national screening is limited, and there are no locally validated risk assessment tools available. To address this, we conducted a systematic review of Asian studies involving nearly six million Asian women and quantified the population attributable risk (PAR) for each factor. Although relative risks were broadly consistent with those observed in European populations, exposure prevalence varied substantially. Mammographic density contributed the highest PAR, followed by lifestyle factors such as body mass index (BMI) and passive smoking—both were notably more prevalent in Asian populations. In the absence of prospective cohort data, we used mammographic density as a surrogate biomarker to explore urban–rural differences in risk. Among ~10,000 Malaysian women participated in opportunistic screening programs, those in rural areas had less dense breasts, partly due to higher parity and breastfeeding—both associated with lower density. These findings underscore a key message: How You Live Matters — and Where You Live Partly Shapes It. Understanding population-specific exposures is essential to develop effective, context-specific cancer prevention strategies.

Keywords: Breast cancer, attributable risk, mammographic density, lifestyle, reproductive