Breast cancer screening in developing countries. A Systematic review.

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Background: Developing countries (DC) have limited resources for health. They use different strategies related to the diagnosis of breast cancer (BC). Most of the women are dependent on the public health system, a fact that influences the characteristics of the tumor at diagnosis. Indicators observed in developed countries are not subject for comparison in the DC, due to multiple deficiencies related to healthcare facilities.

Hypothesis: We have indirect indicators that can be used in DC to evaluate the methodology used for BC screening. These indicators permit the evaluation of the improvement of health conditions.

Methods: We performed a systematic review in PubMed, using the methodology of systematic review and PICOTS (Population- Intervention- Comparator- Outcome- Timing- Setting), associating with elements suggested by BHGI for DC, and quality criteria for mammographic screening. We evaluated possible indicators related to BC in DC. He grouped the studies depending on the subject matter, taking into account the possible indicators that express health indicator methodology used in the diagnosis of BC, or which express the characteristics of patients with BC. We used the terms "Breast Cancer" of "Breast Cancer Screening" and "Developing Country" or "Developing Countries.

Results: Using this methodology we identified 1,149 articles, but we selected 45 full articles, which we have identified the indicators related to epidemiology, form and quality diagnosis, comparison between populations and aspects related to survival. The indicators are presented in Table 1.

Table 1. Indirect indicators related to the diagnosis of breast cancer in developing countries

PICO		Factor	Indicator
Population	BC	Epidemiology	Incidence of breast cancer
Intervention	Methodology or Diagnosis condition	Diagnosis	Methodology used for diagnosis National guidelines; Age for screening Mammographic infrastructure; Population coverage Rate of mammography Rounds of breast screening
		Quality	% of symptomatic diagnosis Time to diagnosis % of early breast cancer (EC0, EC0+I, localized disease)
Comparator	Control		Trend curves/ temporal data Vulnerable populations Comparison between countries
Outcome	Final event	Survival	Mortality/ Incidence relation Survival by clinical stage

Conclusion: The identification of these indicators allows better reporting methodologies used in DC. It also permit evaluate the improvements in the context of public health regarding the issue of BC screening.