Supplementary Online Content


eAppendix. Excluded Studies With References

eFigure 1. Secular Changes in Age at Onset of Tanner Breast Stage 2 (Breast Palpation Only) From 1977 to 2013 Around the World According to Year of Study

eFigure 2. Secular Changes in Age at Onset of Tanner Breast Stage 2 From 1977 to 2013 Around the World According to Different World Regions

eReferences

This supplementary material has been provided by the authors to give readers additional information about their work.
eAppendix. Excluded Studies With References

Our systematic electronic database search strategy yielded 1,760 unduplicated studies from Embase and 1,842 from Pubmed. Two authors (CEL and ASB) scanned titles and abstracts independently to assess eligibility and retrieved 102 papers from the Embase search and 162 papers from the Pubmed search for full-text reading. Among these, 74 papers appeared in both the Pubmed search and the Embase search and were therefore excluded from the Embase search list. Furthermore, 122 studies did not fulfill the other eligibility criteria, and 30 studies used an inadequate statistical method. The exclusion reasons are listed below, and the specific study references are listed within the square brackets.

Full-text articles excluded with reasons (n=122)

- No Useful estimated age at B2 onset [1]-[73], [133]-[146]
- Duplicated data and results [74]-[81], [128], [129]
- Study sample with disease [82]
- Adopted girls [83]
- Severe malnourished/obese study sample [84], [127]
- Study sample with premature puberty [85], [86]
- Family history of breast cancer [87]-[89]
- Use of other method than Tanner scale [90]
- No clinical examination [91]-[95], [97], [98], [130], [132]
- Paper not accessible [147]-[152]

Records excluded based on use of inadequate statistical method (n=30)

[99]-[116], [118]-[126], [153]-[155]
Figure 1. Secular Changes in Age at Onset of Tanner Breast Stage 2 (Breast Palpation Only) From 1977 to 2013 Around the World According to Year of Study

The analysis has been limited to studies in which breast palpation is specified (n=18). A statistically significant decline in age at onset of Tanner breast stage 2 by 0.26 years per 10 year (p-value 0.033) is observed. The dotted line represents the 95%CI interval (-0.49, -0.02) of the weighted regression analysis. The size of the dots indicates the size of the standard error of the mean within the different studies. The color of the dots refers to world region; pink (Africa), green (Asia), red (Middle East), black (Europe) and blue (North America).
eFigure 2. Secular Changes in Age at Onset of Tanner Breast Stage 2 From 1977 to 2013 Around the World According to Different World Regions

The analysis has been separated according to the different world regions included in the article. The analyses were limited by low statistical power and no significant results (P value > 0.10).
eReferences


[141] F. M. Biro

[142] F. O. Irewole

[143] R. A. Hiatt


