# Abstract

Background: Cytological screening remains a high impact practice, particularly in low resource settings, for preventing cervical cancer. The examination of screening practices over time and the prevalence of epithelial abnormalities have not been investigated in longitudinal studies in one of the largest countries in the Middle East and Africa.

Methods: Routine healthcare data were collected from March 1981 to December 2022, at the Early Cancer Detection Unit in a tertiary referral university hospital in Greater Cairo Region, Egypt. Cervical smear was obtained using a standardized technique and sent to the cytopathology laboratory for conventional cytology examination by expert pathologists. Data were analyzed to show the temporal trend of the number of women screened each year and the prevalence of epithelial abnormalities.

Results: The results included data from 95120 women with satisfactory smears. The mean age (SD) of women at the time of screening was 38.5 (10.5). None of the included women received an HPV vaccine. Abnormal epithelial cells were reported in 5174 women (5.44%). Of these epithelial abnormalities, the majority were low-grade squamous intraepithelial lesion in 4144 women (4.36%). Other abnormalities included Atypical squamous cells in 378 women (0.40%), high-grade squamous intraepithelial lesion in 226 women (0.24%), Atypical glandular cells not otherwise specified in 184 women (0.19%), adenocarcinoma in 165 women (0.17%), squamous cell carcinoma in 70 women (0.07%), and Atypical glandular cells favor neoplastic in 7 women (0.01%). Women with an early age at first intercourse, those who opted for routine cervical cytology screening, and those who were older at screening were more likely to have epithelial abnormalities. The yearly number of screened women was positively associated with detecting Low-grade squamous intraepithelial lesion (correlation coefficient [95%CI] = 0.84 [0.72, 0.91]) and negatively associated with the observed squamous cell carcinoma (correlation coefficient [95%CI] = -0.55 [-0.73, -0.29]).

Conclusions: The small number of yearly screened Egyptian women and the temporal trend in epithelial abnormalities critically demonstrate the need for establishing and scaling-up a structured population-based program if we were to achieve the goal of eliminating cervical cancer.