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LIST ALL AUTHORS and AFFILIATIONS – _underline presenting author_
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TITLE
The Evolving Landscape of Invasive Cervical Cancer: A 40-Year Population-Based Analysis of Age-Specific and Histology-Specific Incidence and Survival Trends

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HYPOTHESIS:
This is not a hypothesis driven study.

BACKGROUND/AIMS:
Patterns of incidence, stage at presentation, and overall survival by age and histologic subtype were explored using population-based registry data to help guide and inform future research and screening recommendations for women with cervical cancer.

METHODS:
Data from 18 cancer registries participating in the U.S. Surveillance, Epidemiology, and End Results (SEER) program were used to compute age-adjusted incidence rates of invasive adenocarcinoma (ACA), squamous cell carcinoma (SCC) and adenosquamous cell carcinoma (ASC) between the year 1973 and 2013. Further information on age at diagnosis and stage at presentation were also extracted. Age-specific incidence rates, overall survival, and stage at presentation were calculated for each SCC, ACA, and ASC using the following age groupings: 20-34 years, 35-49 years, 50-64 years, and 65 years and older.

RESULTS & CONCLUSIONS
In women less than 50 years of age, the age-specific incidence rates of ACA have increased, whereas the age-specific incidence rates of ACA in women 50 years of age and greater have decreased or remained stable. The age-specific increase in ACA has been most dramatic in women between 35 and 49 years old from 1.8 per 100,000 to 3.0 per 100,000 from 1973 to 1979 and 2000 to 2013. This is in contrast to SCC for which the age-specific incidence rates have decreased across all age groups from 1973 to 2013 or ASC for which the age-specific incidence rates have remained stable from 1973 to 2013. In both ACA and SCC, increasing age has been associated with a more advanced stage at presentation. For ACA, the proportion of local compared to regionally advanced disease and metastatic disease at presentation has remained stable over the analyzed time period. By contrast, in more recent years, across all age groups compared, women with SCC have presented with more regionally advanced or metastatic disease.

Previous studies have established that the overall incidence of invasive cervical cancer has decreased over the past 30 years. Our analysis has revealed that the decreased incidence of invasive cervical cancer is primarily among women age 50 and greater. In women less than 50 years of age, however, the incidence has remained largely the same. The decreased incidence of SCC in this age group has been offset by a rise in the incidence of ACA. Our findings present a potential paradigm shift in our approach to cervical cancer screening and evaluation. Further research investigating ACA of the cervix-specific etiologies and the potential role of additional and different screening and evaluation methodology is warranted.