Declines in Cervical Cancer Incidence Among Young Women in the United States

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Background

- Approximately 12,500 cases of cervical cancer are reported each year in the US.[1]
- Most cases could be prevented by human papillomavirus (HPV) vaccination, routine cervical cancer screening, and timely follow-up treatment.
- Understanding cervical cancer incidence rate and trends among younger women, who are eligible for the HPV vaccination during adolescence and cervical cancer screening starting at 21 years, could help inform prevention efforts.

Objective

- To calculate age-standardized cervical cancer incidence rates and trends by histologic type among women aged 15–29 years from 1999 to 2022, using cancer registry data covering approximately 99% of the US population.

National cervical cancer incidence rates declined significantly overall and across histologic subtypes, especially in recent years and particularly among women aged 15–20 years, possibly reflecting the effect of HPV vaccination.

Methods

- Population-based incidence data were analyzed from the US Cancer Statistics (USCS) database, which covered 98.8% of the US population from 1999 to 2022.
- Trends in cervical cancer incidence rates were analyzed using joinpoint regression.
- Changes in incidence rates were quantified by annual percent change (APC).
- If APC differed from 0 at an α of 0.05, rates were considered to increase or decrease.

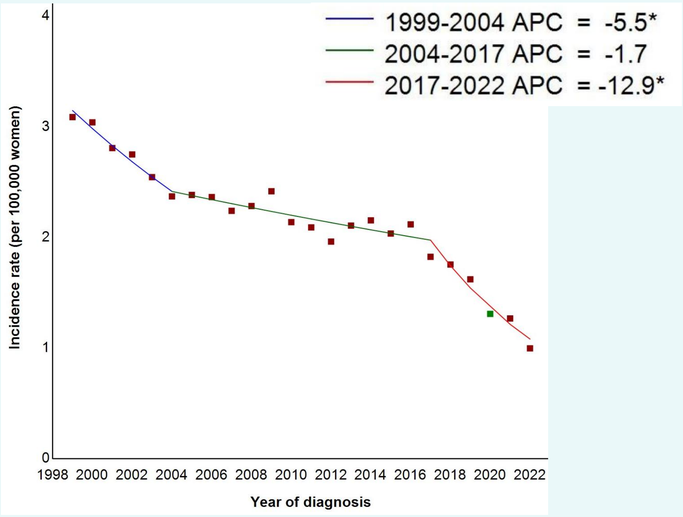
Conclusion

Cervical cancer incidence has declined among adolescents and young adult women in the United States, particularly in more recent years, highlighting the population-level impact of cervical cancer prevention measures.

Results

- Overall cervical cancer incidence rate declined by 5.5% annually from 1999 to 2004 and decreased sharply by 12.9% per year during 2017–2022.

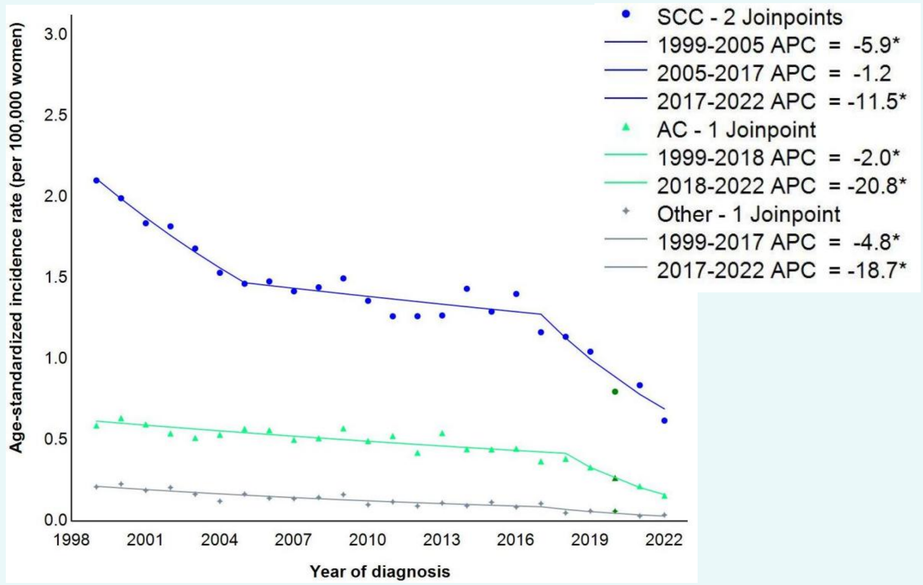
Overall trend in incidence rate among women aged 15-29 years, 1999-2022



Abbreviation: APC, annual percent change

- Cervical squamous cell carcinoma (SCC) declined sharply from 2017 by 11.5% annually.
- Cervical adenocarcinoma (AC) declined sharply from 2018 by 20.8% annually.

Trends in incidence rate among women aged 15-29 years, by histological subtypes, 1999-2022



Abbreviation: APC, annual percent change; AC, adenocarcinoma; SCC, squamous cell carcinoma



Improving HPV vaccination coverage among eligible groups could further reduce cervical cancer incidence rates

References

1. CDC. United States Cancer Statistics: Data Visualizations. https://gis.cdc.gov/Cancer/USCS/#/AtAGlance/

Acknowledgements and/or References

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