The Impact of the Closure of Women’s Health Clinics on Cervical Cancer in the United States

Amar J. Srivastava, MD, MPH

Washington University School of Medicine in St. Louis
Disclosure

I have no conflicts of interest to disclose... except that I consider myself an epidemiologist, of sorts

Full author list:

A. Srivastava¹, J. M. Barnes², S. Markovina¹, J. K. Schwarz¹, and P. W. Grigsby¹

¹Department of Radiation Oncology, Washington University School of Medicine, St. Louis, MO, ²Saint Louis University, Saint Louis, MO
Cervical cancer is a highly-preventable and screening-detectable cancer and if diagnosed at an early stage is very curable with low mortality.

Women are generally diagnosed through Pap smears, which can be obtained at low-cost women’s health clinics (WHCs).

Between 2010-13, ~100 WHCs in the U.S. closed due to funding and new laws.

In this study, we evaluated the association between clinic closures and screening for cervical cancer, stage at diagnosis, and mortality associated with this disease.
Methods

- States were divided into two cohorts—DIC (decrease in clinics) and NDIC (no decrease in clinics) based on changes in the number of facilities providing comprehensive reproductive services between 2010-13 using national survey data.

- We used the BRFSS database to compare changes in screening and SEER to compare changes in stage at diagnosis and mortality using a *difference-in-differences* analysis.
Results

PREVENT

DETECT

REDUCE
Results

PREVENT

BRFSS- Screening with a Pap Smear

5% DIC

3% NDIC

2% DID, p<0.01

Hispanic Women, 5.32%, p<0.01

Unmarried Women, 4.37%, p<0.01

Women 21-34 y/o, 4.81%, p<0.01

Uninsured Women, 6.18%, p=0.01
Results

**SEER - Stage at Diagnosis**

- Early-Stage Diagnoses among 18-34 y/o pts: 3%
- Late-Stage and Metastatic Diagnoses among 18-34 y/o pts:
  - 8%
  - 4%

**DETECT**

- Adjusted DID p=0.03
- Adjusted DID p=0.14
- Adjusted DID p=0.16

**DIC**

- NDIC 14%

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Results

**REDUCE**

36% Risk of Death

Adjusted Hazard Ratio (aHR)=1.36

p=0.04

SEER- Mortality in Women with Cervical Cancer
Results

**PREVENT**

- **2%** DID, p<0.01

**DETECT**

- **14%** EARLY STAGE (Adjusted DID, p=0.14)
- **8%** LATE STAGE (Adjusted DID, p=0.03)

**REDUCE**

- **8%** EARLY STAGE METS (ST. IV) (Adjusted DID, p=0.16)
- **4%** LATE STAGE (Adjusted DID, p=0.16)

- **36%** Risk of Death
  - Adjusted Hazard Ratio (aHR)=1.36, p=0.04
Conclusions

• In this retrospective (observational) study, we noted that closures of women’s health clinics throughout the U.S. between 2010 and 2013 were associated with decreased screening for cervical cancer, fewer women being diagnosed with early-stage disease, a trend towards more women being diagnosed with late-stage disease, and significantly increased mortality.

• Though causality cannot be confirmed, these findings are concerning and suggest that further consideration should be given to funding and other factors influencing the closure of women’s health clinics.