



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

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# Disclosure

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



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# Background

- 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

PREVENT



DETECT



REDUCE



 The New York Times

**Planned Parenthood Refuses Federal Funds Over Abortion Restrictions**

Planned Parenthood said Monday that it would withdraw from the federal family planning program that provides birth control and other health ...

 NBCNews.com

**After withdrawing from Title X, reproductive health clinics scramble for cash**

For many clinics across the country, the lack of federal funds could result in low-income women who normally get care for free having to pay a ...

 Washington Post

**Patients face higher fees and longer waits after Planned Parenthood quits federal program**

In Cleveland, a Planned Parenthood mobile clinic that tests for sexually ... imposed by the Trump administration on abortion referrals, is creating turmoil ... others will face long delays, higher costs and possible clinic

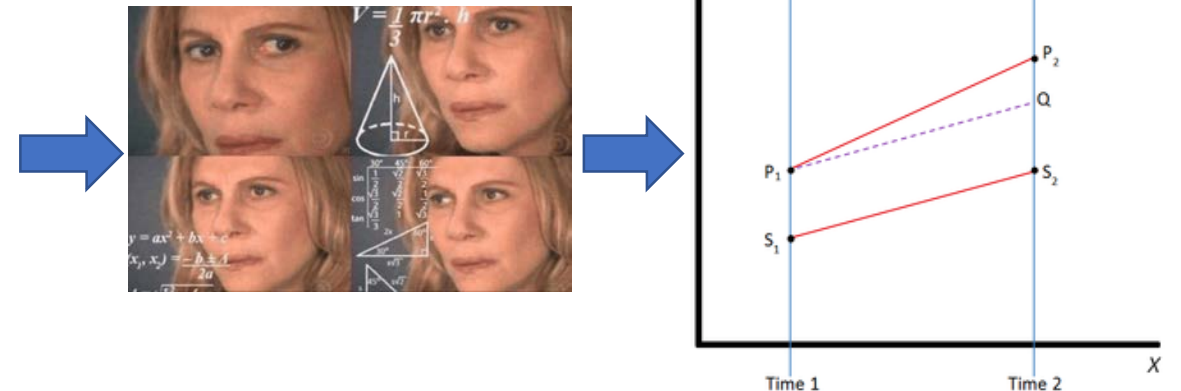
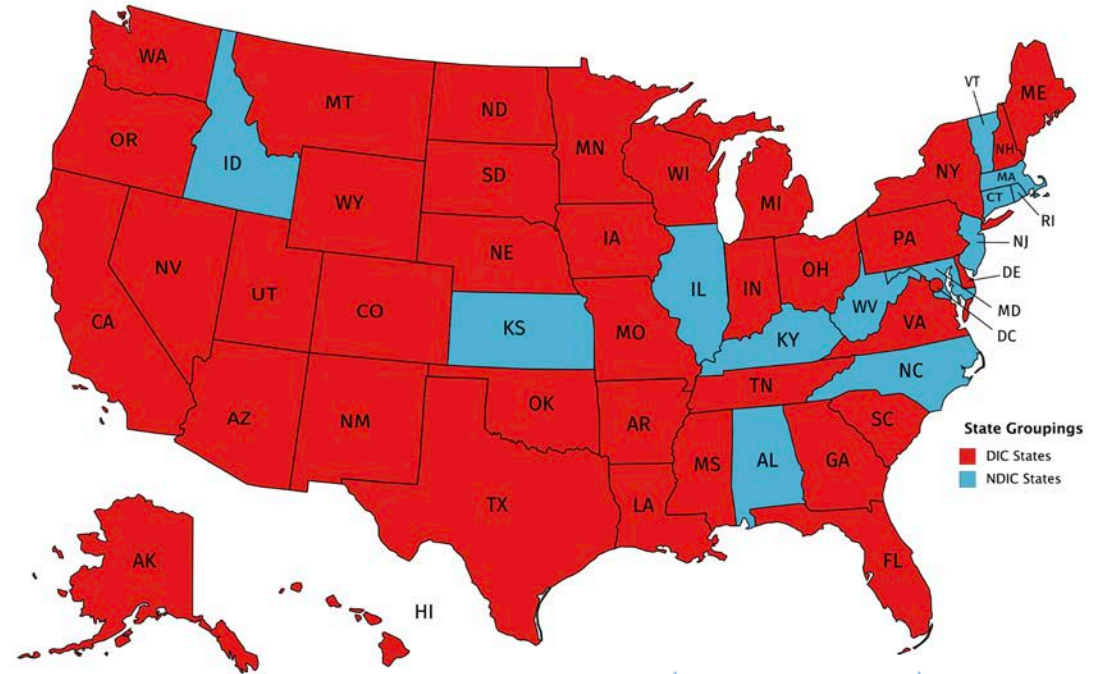
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# Methods

o 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

o 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



Courtesy of Wikipedia



# Results

## PREVENT



## DETECT



## REDUCE

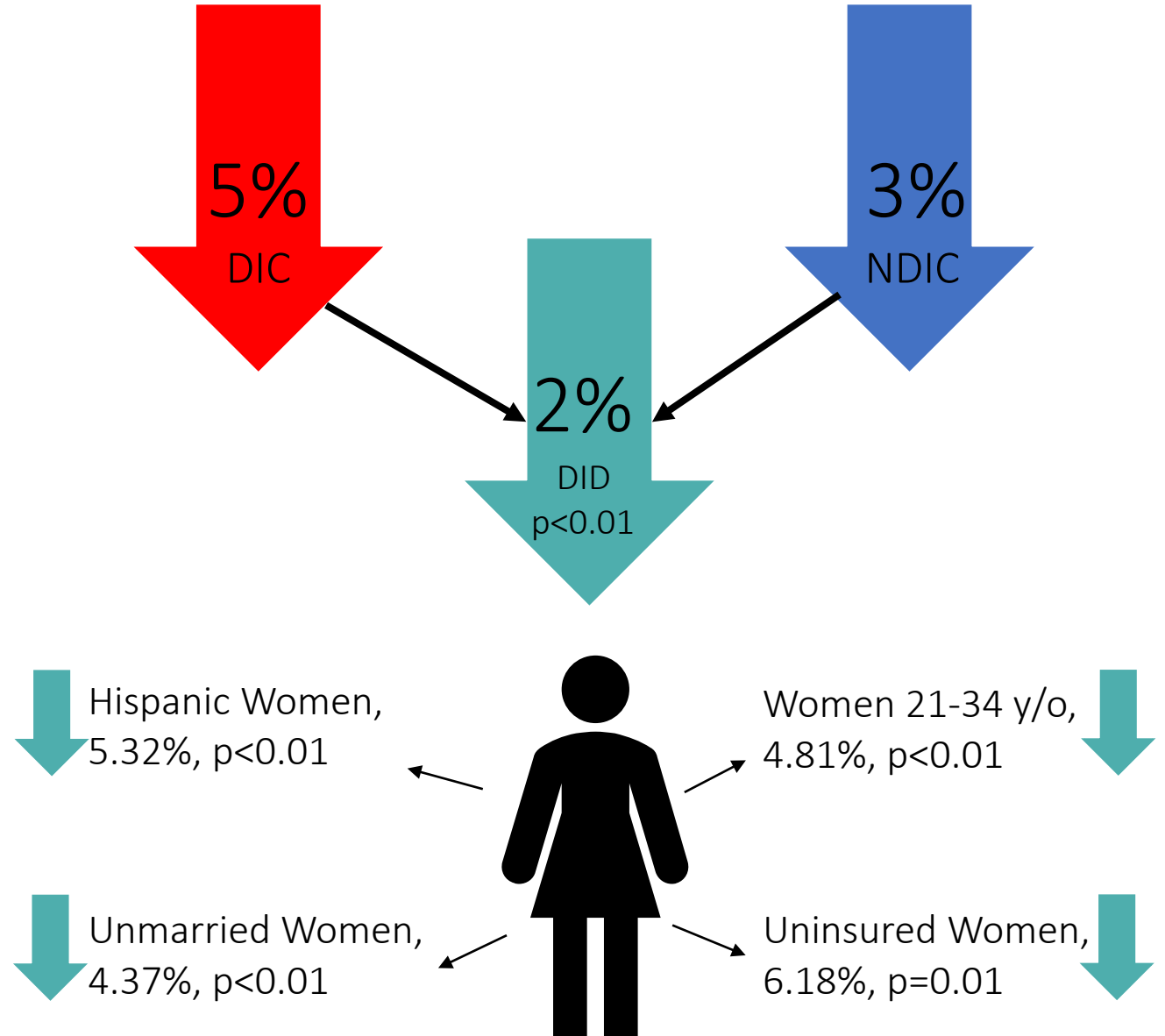


# Results

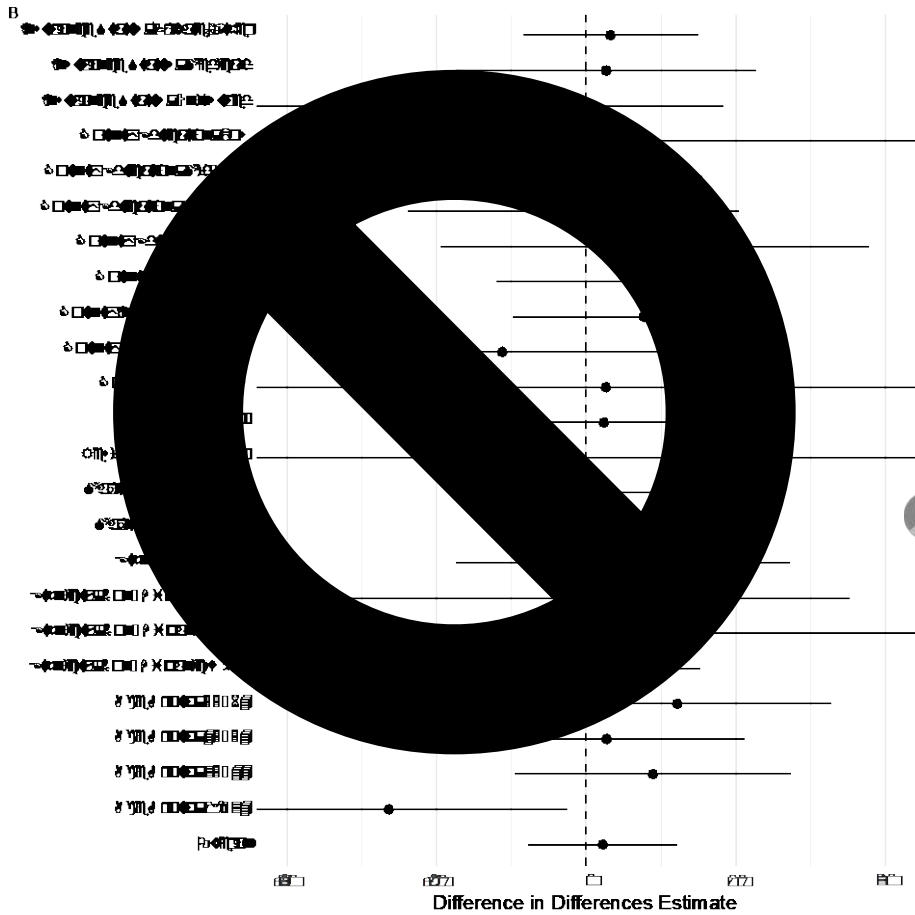
## PREVENT



## BRFSS- Screening with a Pap Smear



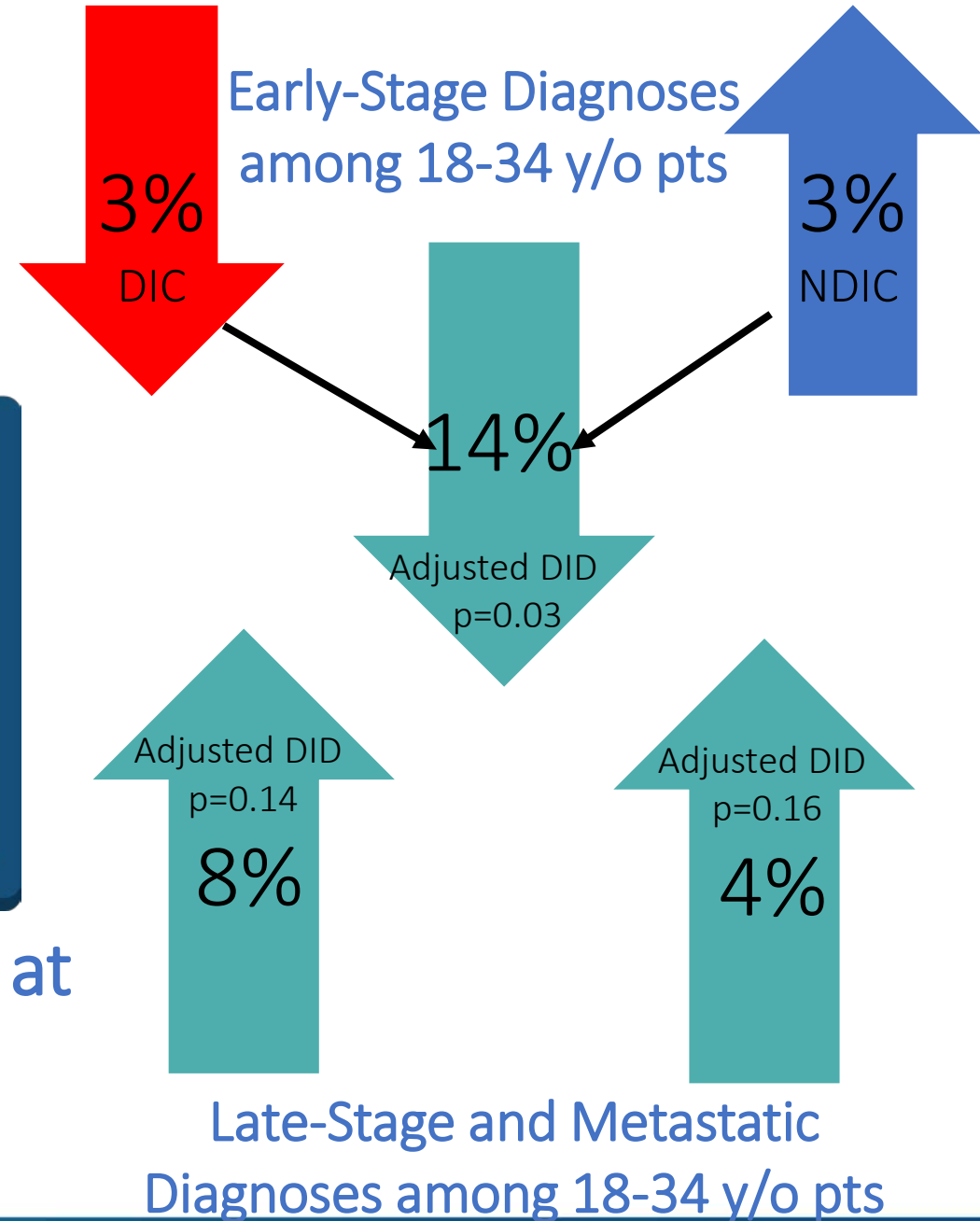
# Results



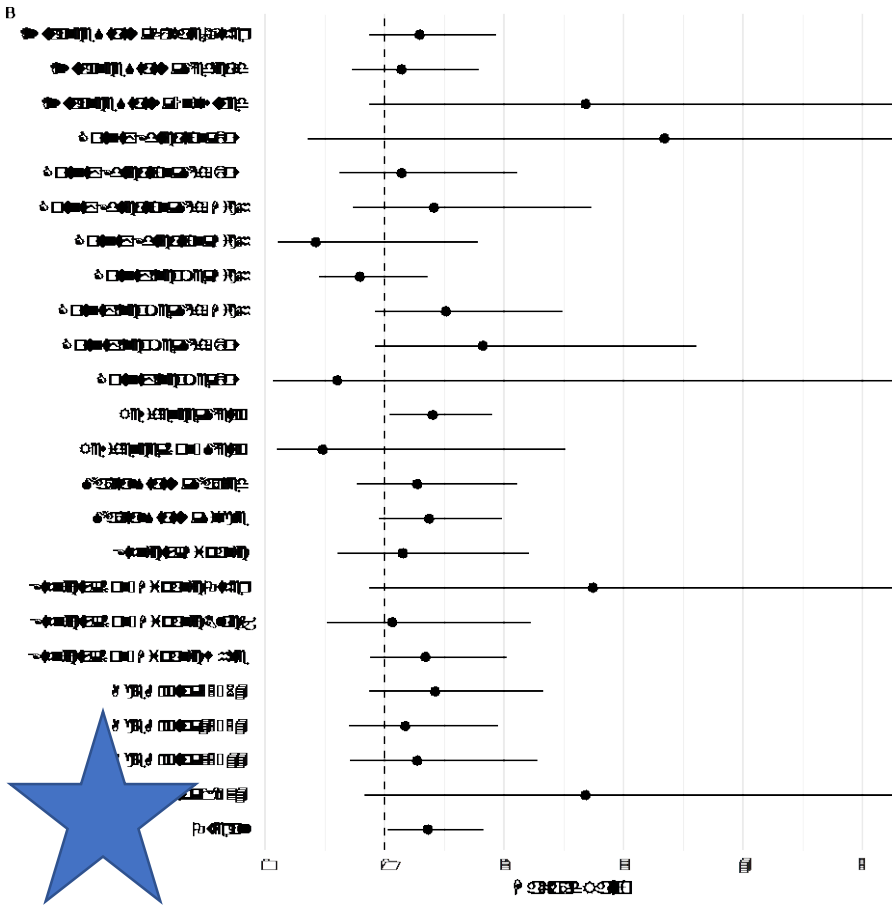
**DETECT**



**SEER- Stage at Diagnosis**



# Results



36%  
Risk of Death

Adjusted  
Hazard Ratio  
(aHR)=1.36  
p=0.04

REDUCE



SEER- Mortality in Women  
with Cervical Cancer



# Results

## PREVENT



## DETECT



## REDUCE



2%  
DID  
p<0.01



14%  
EARLY  
STAGE  
Adjusted DID  
p=0.03

Adjusted DID  
p=0.14  
LATE  
STAGE  
8%

Adjusted DID  
p=0.16  
METS  
(ST. IV)  
4%



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